

276
PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED
FOUNDED 1880

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

Library of Parliament
dec. 31, 19

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1916.

LIV.

LONDON, ONTARIO, NOVEMBER 20, 1919.

No. 1417

PURITY FLOUR

"More Bread and Better Bread"



*Delicacies and Substantial
Foods alike are only Perfect
when made with*

PURITY FLOUR

DIXIE "ACE"



MADE IN CANADA

THE Dixie "Ace" Tractor has so many exclusive features that its superiority is unquestioned. It is the "Ace of Aces"—acknowledged by everyone as setting an entirely new standard in tractor design and construction. The Dixie "Ace" leads—others follow.

You do not buy a tractor everyday—you cannot afford to do anything until you learn all about the Dixie "Ace".

GILSON MFG. CO. Ltd.
329 York St., GUELPH, Ont. 92

MORE \$\$\$\$ FOR Your RAW FURS IN NEW YORK

My Prices Are Guaranteed

Beware of High Price lists sent out to deceive you and get your fur. The higher they quote the less you get.

The secret of a square deal is honest grading at market prices. I guarantee my price until next list is issued and will not quote more than I can pay on an honest assessment.

Enjoy the peace of mind that comes to a shrewd buyer who knows he is shopping to an honest firm.

You will make no mistake, should leave out to get you made my acquaintance.

HONEST GRADING HONEST PRICES

Write at once for the list while you have the chance.

BENJAMIN DORMAN
147 W. 24th ST. NEW YORK

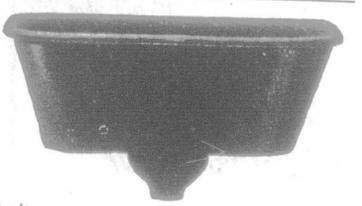
GRAND TRUNK RAILWAY SYSTEM

The Double Track Route BETWEEN MONTREAL, TORONTO, DETROIT AND CHICAGO

Unexcelled dining car service

Sleeping Cars on Night Trains and Parlor Cars on principal Day Trains.

Full information from any Grand Trunk Ticket Agents or C. E. Horning, District Passenger Agent, Toronto.



Don't carry water. Don't water your cows at the ice-hole. Install our **STOCK WATERING BOWLS NOW.**

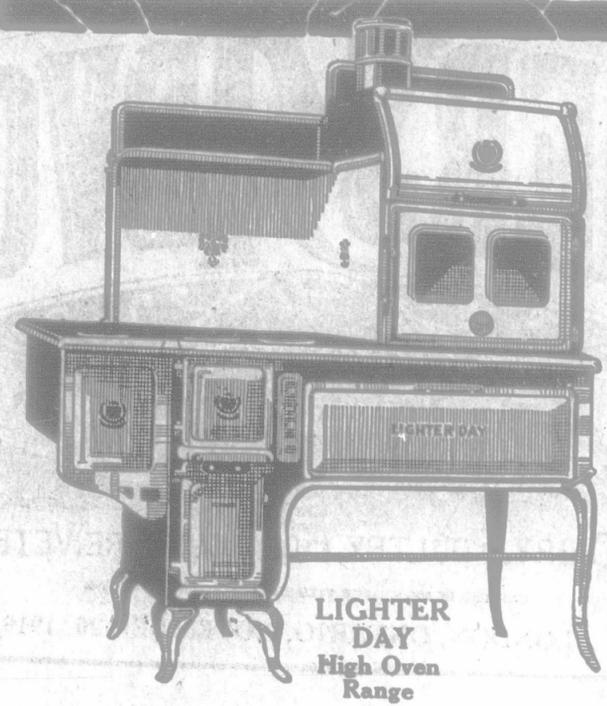
Reap the profits this Winter. Thousands in use. Let us give you a price for your complete outfit, including Bowls, Float Valve, Float Box, Stop Cocks and pipe and fittings, cut ready for you to install.

C. RICHARDSON & CO., St. Mary's, Ont.

SEEDS WANTED

We are in the market to buy Alsike, Red Clover, Timothy, White Blossom Sweet Clover. If you to offer send samples and we will quote you our best price F. O. B. your station.

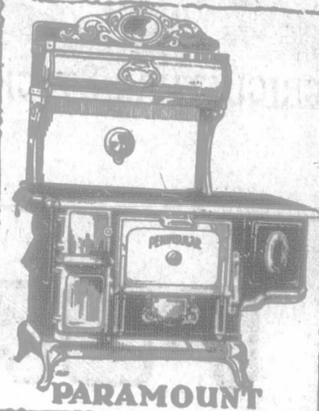
TODD & COCK Seed Merchants, Stouffville, Ont.



LIGHTER DAY High Oven Range



PEERLESS



PARAMOUNT

A Modern Range Saves Hours of Housework

Clare Bros. Ranges are modern. They clean easily—without black-leading. For they are finished with porcelain-enamel panels. They have plain nickel parts. They have polished tops. They are easy to "fire up" and "shake down." Grates work smoothly—without sticking—without buckling—without loss of coal. They have bright, reliable ovens fitted with thermometers, to do away with guesswork in baking. You can have a modern Clare Bros. range the exact size you want, and with whatever equipment you need. They can be supplied with Warming Closets, Hot Water Res-

ervoirs, or Hot Water Connections for the boiler. Both cast-iron or steel ranges are produced with Clare Bros. modern features. If your dealer cannot supply you write for illustrated booklet showing these ranges.

LIGHTER DAY High Oven Range Burns Coal or Wood

Most popular of all ranges because the High Oven does away with stooping. A special booklet describing this remarkable range will be sent on request.

CLARE BROS. & COMPANY, Limited
Preston, Ont.

CLARE BROS STOVES & RANGES.



"Goes Like Sixty"

This Engine Will Cost You Nothing

You need an engine—get a Gilson on our new easy payment plan, and it will pay for itself. You have the work for it to do this fall and winter, help is scarce and high-priced—save yourself a lot of worry, and enjoy that "Feeling of Security" which is such a definite part of the st. unch. reliable Gilson Engine. Gilson Engines have long enjoyed an indisputable reputation for dependability, power, simplicity and economy. This year finds us with an even more attractive proposition for the discriminating buyer. Prices of everything you have been buying have been soaring, but by careful management we are able to furnish Gilson Engines at remarkably low prices. Write to-day for catalogue, price, and easy payment plan, stating what size you are interested in.

Gilson Mfg. Co. Ltd., 259 York St., Guelph, Ont.

RAW FURS All classes will be higher this season. We pay Top market prices and send you money same day goods are received.

Write for price list.

C. H. ROGERS
Manufacturer
Desk 10, - Walkerton, Ont.

STORM WINDOWS & DOORS

SIZES to suit your openings. Fitted with glass. Safe delivery guaranteed.

Write for Price List [B]. Cut down fuel bills. Insure winter comfort.

The HALLIDAY COMPANY, Limited
HAMILTON FACTORY DISTRIBUTORS CANADA

When writing advertisers please mention "Advocate"

STANFIELD'S

Unshrinkable

UNDERWEAR

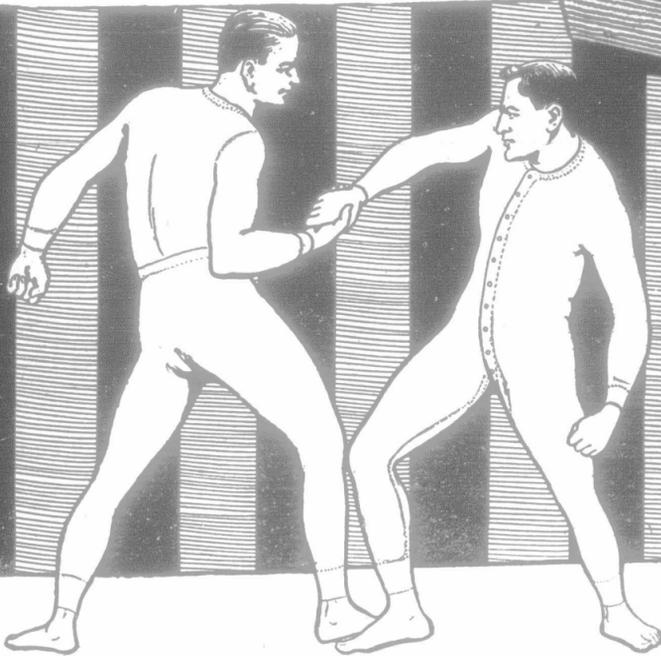
RED LABEL

"It wears longer"

THERE is no underwear in Canada to-day the equal of STANFIELD'S "RED LABEL"—for the outdoor worker. Made of the best grade of pure wool, cut to fit the form, permitting perfect freedom of movement for the most strenuous winter work.

STANFIELD'S "RED LABEL" affords comfort and absolute protection against the coldest Canadian winter. *Unshrinkable*—and wears longer. Sold by most dealers. We send free sample book showing weights and textures. Write

Stanfield's Limited,
Truro, N.S.



"Stands Strenuous Wear"

Palmer's Draw String Shoe Packs



JUST the pack for all men engaged in all out-door occupations. Being waterproof and warm, there is nothing better on the market for Farmers, Lumbermen, Sportsmen, Laborers, Stablemen and others.

Palmer's Packs are hand-made from genuine Skowhegan Waterproof leather. The special Non-Rip Pack, Draw String sewed, is famous for its wearing qualities.

Made on comfortable, roomy, natural tread lasts. A sure cure for tired, aching feet.

To buy Palmer's is to buy the Best.

Get a pair from your dealer. Be sure they are stamped.



"Moose Head Brand" or write us for catalogue and price list.

John Palmer Co., Ltd.
Fredericton, N.B., Canada
Established 40 years. 40



The crystal in a good dairy salt must be pure and dissolve readily. These qualities are always assured in

Windsor Dairy Salt
Made in Canada
THE CANADIAN SALT CO., LIMITED



Marvelous **FREE** Book Sent

You can now learn Taxidermy, the wonderful art of mounting birds, animals, taxidermy, etc. Learn at home, by mail. The free book tells how. Mount your own trophies. Decorate homes and din. Hunters, trappers, nature lovers, you need taxidermy. Interesting, fascinating, big profits. Join our school. 50,000 students. Success guaranteed. Get our free book without delay. Send postage today.

N.W. School of Taxidermy 60 Edward St., Omaha, Neb.

Economy of Ford Service

WEAR is unavoidable even in the best car, but certain parts wear out more quickly than others. There is no need of scrapping your car because the piston rings have seen their day, because the platinum points of the vibrators are worn out. Probably the rest of the car is as good as new.

Medical men agree that the human body is renewed, cell by cell, every seven years. You can do the same with your Ford Car and prolong its life at minimum cost by replacing worn parts from time to time.

Ford service has been the means of doubling the lives of hundreds of Ford Cars, and cutting down the cost of motoring. The fact that a Ford Touring Car, which costs \$690, f.o.b. Ford, Ont., can be purchased part by part separately for \$917 is ample proof of the economy of driving a Ford Car.

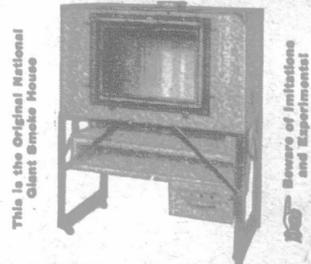
It will pay you to have your car overhauled during the winter months. 700 Canadian Dealers and over 2,000 Service Garages supply genuine Ford parts and prompt repair service.

When buying, choose a Ford, and take advantage of the economy of Ford service.

Ford Motor Company of Canada, Limited

Ford - Ontario

Smoke Your Own Hams, Bacon, Sausages



In THIS Smoke House A 6-Years' Success

Don't sell all your hogs and pay big butcher bills. Save enough for your own use and smoke hams, bacon, sausages and fish in the National Giant Smoke House. This wonderful smoke house is portable. Can be operated in and out-doors. Runs on sawdust, cobs and little bark for seasoning. The

NATIONAL GIANT PORTABLE SMOKE HOUSE AND SANITARY STORE HOUSE

is a great success. Thousands in use in U.S. and foreign countries. Operates perfectly in every climate. Made in 3 sizes. Fireproof. Guaranteed. After smoking meats, use for store houses. Absolutely bug and mildew proof. Keep meat sweet all summer. Worth its price many times for this feature alone. Investigate!

GET FREE BOOK which tells when to butcher, about storage, how smoke house operates, etc. Book contains prize-winning recipes for curing Hams, Bacon, Sausages and fish at home. Write for book, get low prices today, sure. PORTABLE SMOKE HOUSE CO. 424 Station St. Washington, D.C.

NOTICE Get the original National Giant Portable Smoke House. Beware of imitations or experiments.

Jaeger Shirt Comfort

Unless you have worn Jaeger Shirts you have yet to learn what real shirt comfort means. Made of fine pure wool Taffeta in exclusive designs, Jaeger shirts are unsurpassed for wear, fit and style. A fully illustrated catalogue free on application.

For Sale at Jaeger Stores and Agencies throughout Canada. DR. JAEGER & SONS, LTD. Toronto Montreal Winnipeg British "founded 1883".



BOB LONG

UNION MADE OVERALLS SHIRTS & GLOVES

Known from Coast to Coast R.G. LONG & CO. LIMITED TORONTO CANADA



BURNS 94% AIR

Aladdin

TWICE THE LIGHT ON HALF THE OIL

New COAL OIL Light

Beats Electric or Gasoline

10 Days FREE—Send No Money

Men With Rigs or Autos Make \$100 to \$300 Per Month

We don't ask you to pay us a cent until you have used this wonderful modern white light in your own home ten days, then you may return it at our expense if not perfectly satisfied. We want to prove to you that it makes an ordinary oil lamp look like a candle; beats electric, gasoline or acetylene. Passed by Insurance Underwriters. Children handle easily. Tests by Government and 35 leading Universities show that the new ALADDIN BURNS 70 HOURS ON ONE GALLON common coal oil, no odor, smoke or noise, simple, clean, won't explode. Over three million people already enjoying this powerful, white, steady light, nearest to sunlight. Won Gold Medal at Panama Exposition. Greatest invention of the age. Guaranteed.

\$1000 Reward will be given to the person who shows us an oil lamp equal to the Aladdin in every way (details of offer given in our circular). We want one user in each locality to whom we can refer customers. To that person we have a special introductory offer to make, under which one of our lamps is given free. Write quick for our 10-Day Free Trial Offer and learn how to get same free, all charges prepaid.

Yours FREE **Yours FREE**

MANTLE LAMP COMPANY, 232 Aladdin Building, MONTREAL Largest Coal Oil Manuf. Largest Store in the World

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

Send your Furs to Judd

get a Free Check

backs up its promises checks. Ship to Judd the Extra Money we kinds. No commission as come out of your check. Capital proves our get more money and ship to Judd—the Best Great Central Market.

TODAY let and exclusive information furs graded under the Judd

COMPANY 10 St. Louis, Mo.

Warranty

JUDD CHICAGO, ILL.

SAV FURS

Says - HOLD YOUR FURS

orth to anyone until Official Fur Price high prices we are No Commission. for Official Fur Price "Secrets of Big Trap" Supply Catalog same Laws. All sent Use coupon or a card will do. **FUR CO.** St. Louis, Mo.

ON TODAY

D. St. Louis, Mo. Official Fur Price List, Game Laws, etc.

R. F. D.

ed Meal

orders for Cotton Seed Oil Cake Meal. December shipments on carlots.

upply less Toronto

KELLEY Toronto

INVINCIBLE

FORMERLY CALLED
MONARCH



BUY "Invincibles" just once. That is all we ask. You will go out of your way to buy them next time, because there is not another boot like it for wear. Any man who gives them a trial continues to wear them year after year.

"Invincibles" are Pressure Cured. The same high Pressure Process that puts into automobile tires the wear resisting quality which enables them to carry a 10 ton truck thousands of miles over rocks and through mud and snow, is used in the making of "Invincible" Rubber Footwear.

The Miner Rubber Co.,
Limited.



"Galt" Galvanized Steel Shingles



The "GALT" Shingle locks together in such a way that there is no weak point in its entire construction, and it is ornamental as well. It is, therefore, the Ideal Shingle for Dwellings, Churches, Schools, Public Buildings, Barns, etc.

We also manufacture

Corrugated Sheets Barn Ventilators
Silo Roofs Barn Roof Lights

THE GALT ART METAL COMPANY, LIMITED
Galt, Ontario

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

Tractors and Threshers



WATERLOO BOY

The Simplest, most Accessible, most Powerful 3-plow Tractor on the market. Suitable for hauling 3 plows, Threshing, Silo Filling and General Farm Work.



Individual Farmers' Threshers, suitable size to be driven by small Tractors and Gasoline Engines. Do your own threshing. Keep your farm clean and save expense.

Write for free catalogue, prices and any information wanted.
THE ROBT. BELL ENGINE & THRESHER COMPANY, LIMITED, Seaford, Ontario. Also Steam Tractors, and large size Threshers.

EDDY'S "SILENT FIVES"

are the Finest
Matches in the World

They are specially treated to make them safe. They won't ignite unless they're "struck". When they're blown out, they're completely out—insist on getting "Silent Fives", the matches with no after-glow—no danger of fire. All Eddy's matches are non-poisonous. Made—and well made—from the choicest and best seasoned pine blocks.

Eddy's "Silent Fives" are absolutely match perfection. Ask also for Eddy's Toilet Paper



The E. B. EDDY CO., Limited, Hull, Can.

FARMERS! SAVE MONEY ON "Cooke" Steel Wagon Wheels

BY ORDERING NOW!

Owing to the great steel strike and heavy increases in production costs we are forced to advance our prices January 1st, 1920.

Up to the end of 1919 will accept orders at present low figures.

Buy now and make big saving. OUR WHEELS ARE MADE TO FIT ANY AXLE OR SKEIN. Make a new wagon out of your old one at a small cost. Satisfied customers all over Canada.

Write to-day for price list, illustrated circular and booklet of testimonials, together with free chart showing how to take measurements correctly. We quote price delivered to your nearest station.

The Cooke Metal Wheel Co.
19 West Street, Orillia, Ontario

Shavings For Sale

In car load lots. Now is the time to stock up for Winter.

THE NICHOLSON LUMBER COMPANY LIMITED.
Burlington, Ontario.

FOUNDED 1866

and Threshers



WATERLOO BOY
Most Accessible, most Powerful
in the market.
Pulling 3 plows, Threshing, Silo
Farm Work.



Threshers, suitable size to
tractors and Gasoline Engines.
Keep your farm clean
and bright.

Logue, prices and any infor-

ENGINE & THRESHER
ED. Seaford, Ontario.
and large size Threshers

EDDY'S
SILENT FIVES

Best in the World
Specially treated to
be safe. They won't
blow out, they're
out—insist on get-
ting "Fives", the matches
that glow—no danger
at all. Eddy's matches are
made—made—and
—from the choicest
seasoned pine blocks
"Silent Fives" are
a match perfection.
Eddy's Toilet Paper



CO., Limited, Hull, Can.

SAVE MONEY ON
Wagon Wheels
ORDER NOW!

Owing to the great
steel strike and
heavy increases in
production costs
we are forced to
advance our prices
January 1st, 1920.

Up to the end of
1919 will accept
orders at present
low figures.

Buy now and make
big savings. OUR
WHEELS ARE
MADE TO FIT
KEIN. Make a new
old one at a small cost.
all over Canada.

price list, illustrated
with testimonials, to-
day showing how to
correctly. We quote
our nearest station.

etal Wheel Co.
Orilla, Ontario

For Sale

s. Now is the
up for Winter.

LUMBER COM-
LIMITED.
io.

The Farmer's Advocate and Home Magazine

PERSEVERE
AND
SUCCEED

ESTABLISHED
1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LIV.

LONDON, ONTARIO, NOVEMBER 20, 1919.

1417

EDITORIAL.

Winter is just around the corner; be ready!

Do not leave the cattle out too late and lose the summer gains.

It is significant that certain of the old political parties desire a change of name.

Judging by the way the Senate wrestled with the Prohibition measure and passed it in quick order, there is some life in the Upper House yet.

Colds and catarrh in fowls is very common at this season of the year, and should be prevented by providing against drafts and keeping the house dry.

The Horticultural Show held in Toronto last week should mark the beginning of a new era in fruit growing, which has been more or less dormant in Ontario for the last five years.

When politics is discussed in the home by both parents, who are entitled to vote, the youth of this country ought to grow up with a clear understanding of what voting means.

Many level-headed farmers are picking up young sows with the intention of having them farrow next autumn. A good harvest in 1920 is all that is needed to reveal a hog shortage.

The Health of Animals Branch has provided the machinery for the maintenance of tuberculous-free accredited herds, and the regulations ought to be thoroughly understood by all stockmen.

The coming U. F. O. Convention promises to be a rousing one, and the people of Toronto will soon begin to realize the importance of agriculture when they find the Parliament Buildings and Massey Hall in the possession of farmers.

Dairymen should understand the methods whereby the National Dairy Council is to be financed. Producers are only asked for a paltry amount, but the aggregate will make it possible for the organization to do a great deal of good for the industry.

The Board of Commerce was appointed in response to the demand of the public for a reduction in the cost of living. The Government, knowing that it was being blamed by the fickle public for the high cost of living, appointed the Board of Commerce, stood safely behind it, and said to the people of Canada: "Here is our instrument for reducing the high cost of living. It is now working, and your troubles are practically at an end. Don't say that we haven't done our best to curb the profiteer."

It is all a silly game. The Board of Commerce, we suppose, will do some good. It will use its authority here and there, and it will tend to restrain the profiteer a little. But the Board is not prosecuting the profiteers, nor does it intend to do anything of the kind. It is investigating the conduct of industries, it is finding ample evidences of profiteering every day, but it merely shoves its findings into the pages of the daily press. This little scheme is intended to make the superficial public believe that the Government is really doing wonders to reduce the cost of living. It seems that modern Governments are able to mold public opinion by working through the daily press. It seems, too, that the public is always ready to take another bite of political bait.

National Thrift.

Now that Canada's 1919 Victory Loan has been successfully secured, the Canadian people have made themselves liable for the principal and interest of a national debt surpassing \$2,000,000,000. This means about \$250 for every man, woman and child in the Dominion, and it is now necessary that every able-bodied person in the Dominion turn the full force of their joint endeavors to repay this somewhat staggering obligation. It is true that all the natural, financial and moral resources of Canada are behind the Government's promise to pay, but the Government would be powerless to avoid the peril of extravagance on the part of the people.

It is all right enough to say that the Canadian people have increased their cash balances in banks and post offices by \$650,000,000 during the past five years, and that our trade as a country has reached the surprising sum of two and a half billion dollars annually. The fact remains that for this debt of \$250 per capita we have only \$2,000 in natural resources with which to pay it and keep on working as a nation. But the Canadian people owe roughly another billion dollars that must be met by provincial and municipal taxation, and with the further inevitable expenditure that must accompany additional growth and expansion, there is evident the greatest need for national and individual thrift. Individual thrift is the keynote of national saving, and without it the liquidation of our three billion dollar debt is an impossibility. There is always a tendency to enjoy prosperity while it is going, and to pay our debts under the most difficult circumstances. It is easy to go into debt when prices are high and when our incomes are at high water. It would be far better to get out of debt at this time so that, should hard times come, as many thinking men believe they must, we will have a smaller load to carry, and so can bear it easier.

Let us institute among ourselves a campaign for individual thrift. Let us not spend that dollar unless we can get full value for it. Let us take care of our working capital, save where we did not save before, and where perhaps we need not save to pay our personal obligations. Each of us now is liable for a share of a big national obligation that will require our very best endeavors. Collectively and in co-operation with each other we can keep Canada's face to the front and wipe out this heavy burden.

Profligate Governments would render abortive any effort on the part of the people to retrench and discharge these obligations. Economy, so far as it is consistent with efficient administration, must be practiced devoutly, and any endeavor to maintain the present artificial prosperity by reckless spending will lead ultimately, and perhaps suddenly, to national bankruptcy and despair. The people have shown themselves willing to lend; now all Governments, with particular emphasis on the Federal Administration, must set the example of thrift and economy which are absolutely essential to the future prosperity of Canada.

Why Not Start a Flock?

Anyone who has had in mind laying the foundation for a flock of sheep will, perhaps, wait a long time for more favorable conditions under which to begin. Ewes of all ages are now selling far below their actual value, and the same is still more true of rams. Flockmasters are surprised at the lack of interest in sheep since flocks have yielded such a handsome return during the last few years. The demand for ranch rams is, no doubt, being affected by the production of breeding stock on the range or in neighboring provinces and states. However, this is a matter that affects the pure-bred breeder more than the average producer of wool and mutton. The industry, as it concerns farmers with commercial

flocks, is sound, and there is no just reason for the quietness of the market for good female breeding stuff now prevailing.

Owing to the feeling that sheep require additional fencing and that dogs may become a nuisance, there is no danger of the sheep industry being over patronized, and a beginner need have no fear of a serious glut on the market due to over-production. In this regard sheep are one of the safest branches of live stock to keep on the farm. Many are going light on hogs just at present because they are a grain proposition, but sheep will do well on hay and roots with a little grain added at and around lambing time. A flock is not a serious menace to the grain bin, and they are a valuable asset to any farm. Anyone considering a start or wishing to enlarge on present holdings ought to take advantage of the situation now existing and lay the foundation for a high-grade flock.

Something Better Than Resolutions

The time has come when farmers will be obliged to pass fewer resolutions; a substitute has been found. The agriculturist has accomplished little by memorializing the powers that be, and another method has been sought and discovered.

The resolution idea is a by-product of so-called democracy. In a thoroughly democratic organization, every man has his say, and under these circumstances a luxuriant crop of theorists is produced. Such individuals have a passion for framing imperative resolutions. They "whereas" and "therefore be it resolved" till the welkins ring, and sensible folk, because they must be democratic, are forced to listen to their strident demands.

The resolution idea is productive of good results in direct ratio to the calibre of those who father resolutions. A resolution in itself means nothing. If fathered by an incompetent, high-strung individual, it will cause only a slight ripple on the surface of public opinion. If it is the crystallized conviction of a sane, progressive and insistent individual, it will result in contributing something to society.

But "it's an ill wind that blows nobody good." The resolution idea has its compensating aspects. Just as erupting volcanoes are said to be the safety valves of the world, so a bristling resolution is the safety valve which prevents a lot of excitable folk from bursting with the strain of pent-up grievances and emotions. There will be less need, however, for efficiency in framing resolutions, and the fear is that this inspiring accomplishment may become a lost art.

Political Prophecy.

There was a time, we are told, when prophets could look into the future and discern, with some measure of accuracy, the probable turn of events. Prophecy is now a lost art, particularly when it has to do with elections, and the cleverest of politicians give up in abandonment because old axioms are no longer reliable, and they are without any known quantities upon which to base their deductions. Political equations were easy of solution in days gone by, for a certain amount of tradition plus a known quantity of campaign funds in a constituency equalled so many party votes, which meant a certain result. With tradition swept aside and men and women going to the polls determined to express their wishes without regard for political leanings or the promises of any party, there is only one way to be sure of the results, and that is to open the box and count the ballots. We have only met one man who actually knew what was going to happen in the recent Ontario elections, and his declaration was made subsequent to October 20, after the returns were in. A new era is dawning, and the surprises incident to elections will, no doubt, be duplicated in the conduct of future govern-

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 Journal,"
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.—25 cents per line, agate, flat. Live-stock advertising rates given on application.
 4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payment of arrearsages must be made as required by law.
 5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrearsages 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

ments in this country. When some politicians awakened on the morning of October 21 and ascertained for certain that the experiences of the previous day were not a nightmare or a dream, they at once predicted that a Government could not be formed from the heterogeneous representation from the various ridings of Ontario. Some are now predicting that the Farmer-Labor Coalition will not be long lived; it is contrary to custom and unstable. Without venturing a prediction on our part, it is plainly evident that modern prophets are not taking public sentiment into consideration or appreciating the fact that the people of this Province are anxious for good government regardless of who forms it, and will deal harshly with any group or party who take measures to obstruct it. Whatever happens it is plain that the text books on political prophesy must be revised, and the art practiced in accordance with the modern freedom of thought and action.

Nature's Diary.

A. B. KLUGH, M. A.
FOX-FARMING (Concluded).

The kennel is usually placed in the centre of the pen, and the type most in vogue is a wooden structure consisting of two compartments. It is usually placed on skids a foot or so off the ground so that the foxes cannot burrow under it and hide. The outer compartment of the kennel is about 3 feet square, and has a rectangular entrance passage about 8 by 10 inches, and sloping down from the building to within a few inches of the ground. The inner compartment is made with double walls, and the space between them is filled with some non-conducting material such as the ground cork in which Malaga grapes are packed, sawdust, chaff, or dry leaves. The inner chamber is usually 18 inches square by 20 inches in height or 16 inches by 20 inches by 20 inches high, as it must be large enough to provide against over-crowding by the growing family and small enough to be warmed by the body heat of the animals. A bedding of dry leaves, grass or earth is usually placed in the inner compartment.

In the management of all animals success or failure depends to a very large extent upon the character of the person who handles them, and this is particularly true in the case of foxes which are at most only half domesticated and are nervous in temperament. The keeper must move cautiously and quietly about the pens at all times, and should, particularly in the breeding season, wear the same clothing as far as possible, so as to avoid the exciting influence of unusual sights and

smells. Many fox ranches have a tall tower from the upper chamber of which the keeper can overlook the pens and thus keep watch on his charges without being seen. Many female foxes are prone to become unduly excited when they have young pups and carry them about from place to place, thus sometimes causing the death of their family from exposure. In such cases some fox-farmers place a live chicken or rabbit in the pen to distract the attention of the mother.

Foxes mate when ten months old and have been found to continue prolific until about eleven years of age. But one litter per year is produced and the time of birth is from the middle of March to the end of May.

There is great diversity in methods of feeding among different fox-farmers, and some breeders are inclined to attribute their success mainly to special methods of feeding. The fact, however, that foxes are kept in perfect condition on various ranches where quite different methods are practiced shows that no one prescribed diet is essential for success.

The articles of diet which enter into the menu of foxes on different ranches are horse meat, butcher's scraps, fresh fish, salt fish, rabbits, groundhogs, mice, chickens, biscuits, bread, vegetables, grass, porridge, berries, apples, milk and eggs.

The flesh diet is usually fed raw, though some breeders par-boil it. Sometimes carcasses are salted down in barrels, and a portion freshened in running water for a day or so when required for use, while at some ranches old cattle and horses are kept on the hoof and slaughtered as required. The amount of meat fed should be about a quarter of a pound per day, and this amount should be decreased if any of it is buried.

Some fox-farmers use patent dog-biscuits almost exclusively, others feed a good deal of plain "hardtack," while with others bread with dripping on it is one of the standard diets.

Cleanliness is one of the essentials in successful feeding, and the dishes should be scalded and scrubbed frequently. The water vessel should be fastened to the fence with wire hooks so that the foxes cannot climb over it.

Bone and lime-water are fed to the young foxes to supply the salts for bone-formation. Broken and splintered bones are usually avoided because of the danger incident upon their being swallowed.

When the foxes are less than a year old they may be fed about as much as they will eat, but when they are older too full a diet may render them too fat for good breeding condition.

Particular care is devoted to the feeding of the mother prior to the birth of the pups, and fresh milk, eggs, meat broth, bone broth, and well-cooked oatmeal are freely employed at this time, while similar nourishing diet is given while she is nursing.

The experience of most fox-farmers is that if the foxes are intelligently cared for they are healthy in confinement. When the pups are shedding their milk teeth, which takes place when about three months old, trouble is sometimes occasioned by the formation of abscesses at the base of the canine teeth. Giving the pups large bones to gnaw, and thus promoting the loosening and dropping of these teeth has been found to obviate this trouble.

Advice to the New Government.

BY SANDY FRASER.

Some time last spring, I think it was, I heard the first talk o' organizin' a branch o' the United Farmers of Ontario in this corner o' the country that I happen to be livin' in; an' tryin' to mak' my livin' in. My grandfather's ticket ran oot when he got this far intae the woods, ye see, an' the conductor put him aff the train. If he'd had mair money when he left auld Scotland, a hundred years back, I might noo be farmin' up in Oxford or Middlesex counties wi' the rest o' the aristocracy, or maybe moved intae toon an' payin' an income tax.

Be that as it may the fact remains that I'm here in Glengarry, next thing tae Quebec, where we've always had to wait for the tide o' education an' civilization to sweep doon frae the West an' enlighten us as to oor duties an' opportunities.

I mind when the Patrons of Industry were having their day in the Province o' Ontario an' Lockie Wilson was puttin' on his armor to fight the battles o' the doon-trodden farmer. Not one o' their organizers ever showed up around these parts until the "Patrons" had a club formed in every school-section between here an' Lake Huron. And it was the same wi' the U. F. O., as they call it. (A chap has to be weel up in his letters these days, wi' their U. F. O. and their G. W. V. A. and their I. L. P. to say naething o' what they hae done wi' a' the rest o' the alphabet.) But when they finally got around to us some o' us that had been thinkin' the matter over were in a half notion o' not takin' anything to do wi' this U. F. O. I attended the first meeting in oor district an' when the chap wi' the paper cam' to me for my name I says to him: "Look here noo, my friend," says I, "Puttin' the 'Grange' an' the 'Patrons o' Industry' an' a few Farmer's an' Breeder's Clubs together, I've joined in my lifetime just about fifteen o' these organizations. And where are they all noo? Dead an' gone, ilka one o' them. Died a natural death, easy an' by stages, juist like that. Sae what's the use

o' me signing yon document an' payin' oot my membership money for the chance o' gaein' to anither funeral. Where's yer doctor's certificate guaranteeing that this latest bairn o' yours will live ony langer than the rest o' them?"

"Sandy," he replied, "it's men like you that are going to prevent our finally bringing one of these 'bairns' as ye call them, to maturity. It's like everything else, ye have to learn by the mistakes o' the past. The fact that we failed once or twice is na proof that we canna succeed in the end. Did ye ever hear o' onything great being accomplished without its ups an' doons? An' especially its doons. Pit yer name doon, Sandy," says he, "an' dinna get discouraged juist as we are gettin' to the top o' the pile."

"Weel," I said, "I dinna want to be a quitter in my auld age. I ken that the only way to find the potatoes is to keep scractchin', an' that those that get there are the ones that keep goin', sae here's to it, once mair. Gie us yer pen."

That's the way I am; easy like. But I ken I wouldnae hae felt right gin I had done onything else. It's up to us to keep pushin' while there's ony push left in us, I guess.

And, as things hae turned oot, I canna say I hae much cause tae regret my action. It looks noo as though the top o' the hill was nearer than we counted on. We even have to rin the Government machinery wi'oot havin' had much in the way o' apprenticeship. But I've always found that the quickest an' best way to learn all about a gasoline engine, for instance, was to start her up an' get acquainted wi' her while she was daein' yer work. Na doot it will wark oot the same way wi' oor new legislators. Gin they want to dae what's right I'm no much afraid for onything else. Na danger, but they'll get io's o' advice, onyway. I hae half a notion to be handin' oot some mysel'.

I aften tell the auld wumman that the reason she never made mair o' a success in life was because she never took ony o' my advice. But she says she took it once, that time I advised her not to wait for the ither fellow, and that was enough for her. Which is no' much in the way o' encouragement for me to start in to be givin' hints to the "Farmers."

But there's one thing that I'd like to say to them, if I never say anither. An' that is, don't go back on the Good Roads legislation. I've heard a few hints to the effect that the United Farmers were not too enthusiastic aboot spending sae muckle hard cash on the proposed great highway frae east to west o' the Province, connecting up the big cities along the line; an' maybe they're right. I find it hard to turn doon ony scheme for improving the roads, no matter where it is planned to begin or end. But maybe it's too much money to be spending for what ye might call a trans-provincial motor road when we already hae the railroads. Some say that ye have to build the main line before ye can build the branches. But that is truer o' a railroad than it is o' the King's highway. I mind o' bein' pathmaster once an' a chap who lived on the sideroad was going for me for putting all the work on the main road. "Whats the good o' that main road to me if I canna get to it," says he. "And there's something in it. A concrete highway running frae end to end o' the Province wouldn't be o' muckle benefit tae the great majority o' us, unless it was in the way o' an example. It might be the means o' gettin' us to build roads to connect wi' it. That's for those that ken to say."

But what I'm drivin' at is this. Let us gie the Government to understand that we want improved roads all over the province as soon as it is possible for us to have them. This travelling through mud up tae the axles in what is supposed to be a civilized country, is played oot. We want every main road and side road and end road put in such shape that a chap can call them roads wi'oot apologizin' to his conscience. It will cost money, I ken that. But it's a guid investment. Juist as guid as a first mortgage at six per cent. And no' to say onything aboot the improvement in oor moral nature. It's an unco' thing the way some men will be expressin' their feelings when they happen to get on to a bad piece o' a road an' they hae a blow-out or break an axle or something like that.

The thing is, there is a tendency to economize among us farmers, which is a'richt in its place, but which has, money a time, been carried too far. And what I'm afraid of is that oor coming Government may get to working for a surplus in the Treasury sae hard that the Good Roads movement will hae to tak' a back seat for the time being.

When the boys we hae sent up to Toronto get to strolling around through Queen's Park on the cement sidewalks an' across the paved roads they hae there, they may forget all aboot us stick-in-the-muds away oot on the back concession and gae in for politics. But we're lookin' for better than that from them, for a year or twa onyway. I'll say that much.

Another milestone has been passed and Canadians have shown that they are ready to finish the job in the same spirit they began it. The Loan has been a success; and now let every citizen make it his business to see that the money is wisely and economically expended.

Live stock is the foundation of all agricultural prosperity, and over a term of years the returns from live stock will be comparatively good. A steady, permanent policy of production will net farmers more in the end than an "in-and-out" policy with no objective.

THE HORSE.

Feeding Horses Grain and Roughage of Poor Quality.

On account of the high price of hay, even that of only fair quality, there will be a great tendency on the part of the stock owner to feed his idle or partly-idle horses on that of poor quality and straw in order to be able to market the hay. Hence, it may not be considered out of place to give a word of warning and make a few suggestions re the feeding problems that may confront the owner.

The feeding of large quantities of roughage of poor quality to horses is dangerous. Feed that can be consumed in large quantities with practical impunity by cattle, may cause serious trouble if given even in limited quantities to horses. This doubtless is largely due to the comparatively small size of the stomach of the horse. The feeding of hay that is over-ripe, dusty or musty, in considerable quantities, is very liable to cause digestive or respiratory diseases, or both. Some may ask, "How can the quality of the feed affect the respiratory organs?" This may be a reasonable question to ask, but when we understand that the stomach and lungs receive their nerve supply largely from the same pair of cranial nerves, we can more readily appreciate the fact that when, from any cause there is an often repeated or continuous irritation to the one, there is a strong liability of derangement of the other through nervous sympathy. Most horsemen know that the continued feeding of dusty or musty hay to horses, or an unlimited amount of hay of better quality to a greedy horse, is often followed by heaves. Some of us may remember that the haying and harvest seasons of 1912 and 1915 were very wet, and as a consequence a great deal of feed was of poor quality. During the fall and winter following these seasons the practicing veterinarians were kept more than ordinarily busy.

We have, on many occasions, warned readers against making sudden changes in feed, especially to horses, and we wish to repeat the warning. The time will soon arrive when many horses that have been at regular work for several months will commence a period of semi or complete idleness, and there will be a tendency to change the roughage from hay to straw or hay of poor quality. Where this change is made suddenly a considerable percentage of the horses usually show signs of digestive derangement in from one to two weeks. Where the change is gradually made, by feeding less hay and a little straw at first and gradually increasing the amount of straw and reducing the amount of hay each day until in 8 or 10 days a full ration of straw can be given, we find that sickness seldom occurs.

When either hay or straw that is being fed is either dusty or musty, means should be taken as far as possible, to avoid evil results. This can be done to a greater extent by thoroughly shaking with a fork in order to remove all loose dust, and then dampening with lime water before feeding. Where large numbers of horses are being fed this may appear to be too much trouble, but we must remember that the loss of a horse of the more or less serious impairment of one or more horses is more expensive than the necessary trouble in order to avoid such would have been. Lime water is made by slacking a lump of quick lime in a vessel, pouring water into the vessel and stirring the fluid thoroughly, then allowing it to stand, when the undissolved lime will settle at the bottom and the clear water on top is "lime-water." It is simply a saturated solution of lime in water, i. e., all the lime that the water will hold in solution. It cannot be made too strong, as the undissolved lime precipitates. A lump of lime twice the size of a man's fist is sufficient to make a barrel of lime-water. It will remain pure for a long time, hence may be made in large quantities and kept ready for use in a place where it will not freeze. Lime-water should be used on all roughage that is of the nature under discussion.

Grain of poor quality also can be rendered less dangerous by treating with lime-water, but it is still safer to boil it or have it rolled or chopped, and treat with boiling water a few hours before feeding.

In order to winter idle horses cheaply there will be a great tendency to feed silage. Silage of good quality fed to horses in reasonable quantities, mixed with cut hay or straw or with chaff, gives excellent results, but we wish to emphasize the fact that in order that it may be safe for horse feed it must be of first-class quality. Silage that has not been properly made or has been frozen, or the surface of which has been exposed for considerable time, tends to mold quickly. Any feed that contains mold and feed or water that contains decaying animal or vegetable matter, as moldy silage, hay or straw, moldy corn stalks, partially decayed roots, water containing decaying animal or vegetable matter, etc., if fed to horses in even small quantities for any considerable length of time, will probably cause a disease known as "Cerebro-spinal-meningitis." Dusty or dirty feed will not cause this. It is no doubt due to a germ that exists in mold or decaying matters. It is a disease peculiar to equines. No successful treatment has been discovered for a well-established case. Some cases yield to treatment if given in the very early stages, but a very large percentage of cases end fatally. In rare cases the disease appears suddenly and the patient dies in a few hours, but in most cases the symptoms develop slowly and the patient lives for a few days after the first symptoms, which are usually an inability to swallow. When attempting to drink the animal apparently performs the normal acts, he keeps his lips in the water, and makes the normal sounds of a horse

drinking, but the water does not disappear, nor is he able to quench his thirst. If the water be in a pail or other small vessel, it will be noticed that the quantity is not becoming less, though he appears to be drinking heartily. He will masticate his hay or other feed in a normal manner, and make regular and apparently normal but ineffectual efforts to swallow. The masticated feed will be either quitted or impacted between the molar teeth and cheeks. He cannot swallow. In a variable time, from one to several days, symptoms of general paralysis appear, he lies or falls down and probably is unable to rise, delirium ensues, and in from 1 to 3 days, after the alarming symptoms appear he dies.

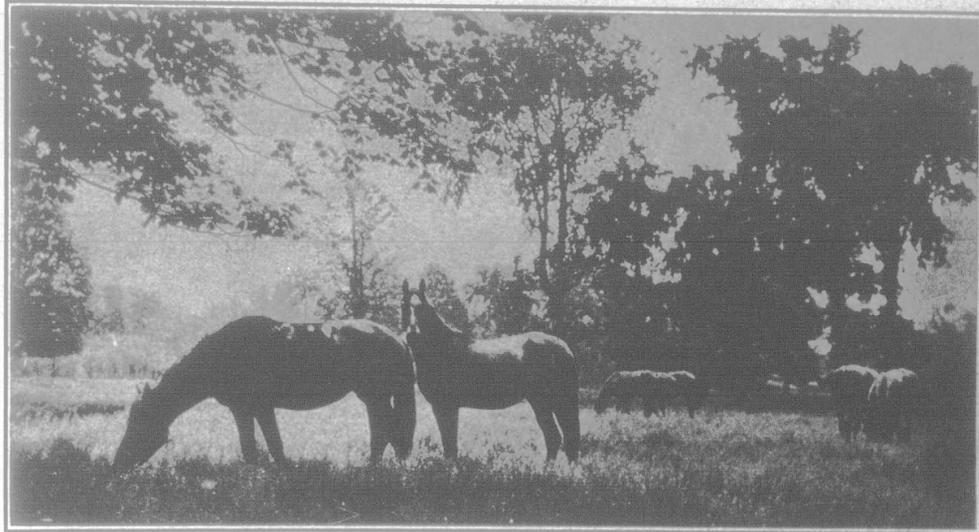
When a case of this nature is observed, the cause must be sought for and removed. If due to the water, and pure water cannot be procured, that used must be thoroughly boiled. If due to feed, its consumption must be ceased. All horses that have been kept under the same conditions should be given brisk purgatives, followed by 4 to 6 drams of hyposulphite of soda, or 40 to 60 drops of carbolic acid well diluted, three times daily, and, of course, given feed and water of good quality.

WHIP.

The Horse an Efficient Power Plant.

The horse is—next to man himself—the most efficient power unit in existence, delivering more effective motive energy in proportion to energy consumed than any other type of motive power unit, when the work done as a self-reproducing, self-repairing organism, is taken into account. Millions of horses have worked from the time they were 3 till they were 12 years old, without the expenditure of a dollar for repairs; and this factor of long life must be taken into account in reckoning the efficiency of a power unit, for one which wears longest and with least expense for repairs has an appreciable advantage. From the economic standpoint, therefore, the horse requires a minimum of human labor in his production, and has the merit of long life and low repair cost,—factors important to low cost of production in any enterprise in which power in the form of horses may be used.

Wherever power is needed to move loads over



Some Light Horses on Pasture in Oxford County.

fields or roads, emergencies arise where the power required to move the load becomes three or four times normal. Horses excel in such emergencies, for they can, in a pinch, exert a tractive pull equal to more than three-fifths of their live weight, or can, for a short time, pull an overload of 300% to 400%. In this the horse is unequalled, for no other type of motive power can handle more than a 100% overload. This capacity to sustain an overload is of incalculable value in field work, especially in the spring season, when fields may be in perfect condition for work, save for occasional irregularly distributed soft spots. Horses go through these with ease, because of their reserve power, and this gives a reliability possessed by no other power unit used in field work. In city work, also, particularly on cobblestone paving, a pair of big drafters can handle an 8-ton load on a 2-ton truck solely because of the overload capacity they possess, which enables them to start the load, 10 tons in all, which, once started, can be drawn without difficulty. This ability to exert 3 or 4 times the pull usually required is therefore a distinct economic advantage.

The great flexibility of power in horses is especially valuable on the farm. One eight-horse team on a double disc with a harrow behind, may later be broken into two four-horse teams for seeding or into one pair for planting and a four for harrowing, and an extra pair for general work; or a little later into four separate teams for cultivating. No other source of power in actual use on the farm has this flexibility; and the same applies to hauling for, when six-horse teams are needed on heavy loads, they can be used readily, but can be broken into three teams and put on three separate jobs when necessity requires.—Wayne Dinsmore, Secretary Percheron Society of America.

LIVE STOCK.

Progress in breeding is made according to the judgment used in securing herd and flock headers.

Some well-bred animals have proved a failure because their owner evidently thought that the pedigree would carry them along without much feed or attention.

Our English correspondent writes that for the year the value of pedigreed live stock exported from England totals £2,013,388, or 67 per cent. more than for a similar period last year.

A live-stock breeder is not developed in a day or a week; a life-time is all too short. Take up the work where others have left off, and carry your chosen breed on towards perfection.

International Live Stock Show, Chicago, Nov. 29 to Dec. 6. Ontario Provincial Winter Fair, Guelph, December 5 to 11. Toronto Fat Stock Show, Toronto, December 11 and 12.

A. A. Armstrong's sale of Oxfords, held at his farm near Fergus, did not bring as high prices as was expected. The highest price for a shearing ewe was \$70; for a shearing ram and ram lamb, \$50; and the highest for a ewe lamb was \$42.50. The flock of 100 head averaged \$31.

In Tenn. 54 Angus cattle made an average of \$1,040. The three-year-old bull, Black Balatum, brought \$7,500. Andrew's Shorthorns, of Ind., averaged \$1,345. A son of Lord Avondale sold for \$5,000. Ten head of Shorthorns from Lespedeza Farm went under the hammer for a total of \$30,300, while 30 head averaged \$1,610. F. R. Edwards' 51 Shorthorns realized \$56,550.

Does docking and castrating pay? On Wednesday, Nov. 5, Mr. Wallace, of the Paris District, shipped 77 grade lambs to the Union Stock Yards, Toronto. There was a particularly heavy run of lambs that day on the market and trade was dull. Up to the time of the

arrival of this load, a few lots had sold for \$13.75 per hundred, but in the main the run of lambs was going at \$13.00 to \$13.50 per hundred pounds. To make a long story short, Mr. Wallace topped the market with his load, because each one was properly docked and castrated. They were sold for \$14.25 per hundred pounds—a good 75 cents more per hundred than the average price for that day. The lambs averaged 82 pounds in weight,—were well fitted, and it was claimed by the sheep buyers on the Stock Yards that it was the first carload of lambs arriving at the Yards this year that did not contain a percentage of ram lambs.

T. HETHERINGTON.

Tuberculosis.

Figures are not available to enable one to reckon the number of animals affected with tuberculosis or T. B. as the disease is commonly called. Nor is the annual loss to the live stock industry, from this scourge, known. However, it is a fact that the loss is enormous, and that the disease is to be found in most unsuspecting places. The germs are by no means confined to poorly lighted, damp places, but abound in up-to-date stables. Registered animals are as susceptible to the plague as are grades, and the loss is heavier with the former. From a physical examination alone it is impossible to definitely detect the presence of the disease, unless symptoms are very marked as in the last stages of the trouble, consequently affected animals may remain for years in a herd, spreading the deadly germs without the owner becoming aware of the fact. The most definite way of detecting the trouble is to apply the tuberculin test. Many breeders test their herds and eliminate reactors so as to avoid danger of spreading the trouble

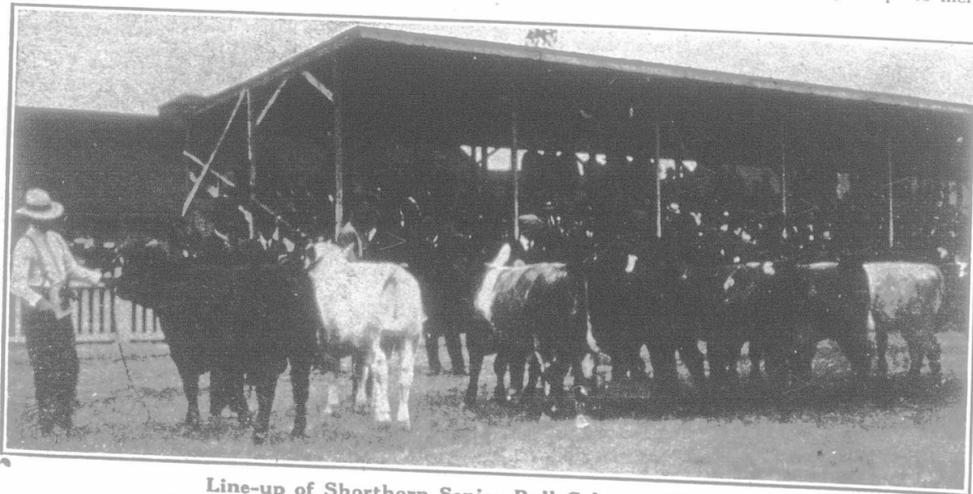
to the remainder of the herd. While the test is fairly reliable there are instances where a diseased animal does not react. This is the weak point, but it is the best known method of detecting the disease and, if properly made, few diseased animals will escape detection.

If we are to develop an export trade in breeding animals it is essential that a close tab be kept on the health of our animals. American breeders require that our cattle going into their country pass a sixty-day retest. If the animal has not been tampered with, and a reliable make of tuberculin is used a breeder is assured that an animal passing this test is clean. Considerable trade has been carried on between Ontario and Western breeders. But if this is to be developed the animals must have a clean bill of health. It has been intimated that some stock imported into the Western Provinces have not been as healthy as they should have been. If there is a particle of suspicion that everything is not right some of our best markets for pure-bred stock will be lost. But, from a breeders standpoint, one cannot afford to harbor tubercular animals in the herd.

The treacherous part of the disease is that an animal may be thrifty and look all right, yet be a spreader of the germs. Such an individual in the herd is a dangerous one to retain. It will be noticed that at some sales of high-class stock the animals are sold subject to retest. There is a reason. Men building up a clean herd can afford to pay more for stock that has passed the test than for doubtful propositions. Many breeders test their herds regularly, and are able to cater to the big trade. It requires the concerted effort of all breeders to reduce this disease to the minimum. Instead of abating at the present time, it is spreading apace. Let us make use of the best means at present known to detect the trouble in our herds.

There is some complaint of unscrupulous breeders not using the test justly. Animals have been suspected of being "plugged" or treated so that they will not react within a certain time. This has given rise to breeders insisting on a sixty-day retest. Honesty in the test is needed. Imported stock frequently reacts. It is well known that tuberculosis is more prevalent in the herds of England than on this side of the water, but the breeders apparently do not take it as seriously. The climate may have something to do with it. No matter where the diseased animal comes from, nor how valuable, it is a menace to our cattle industry if it carries the germs of tuberculosis or other infectious disease. Herds have been dispersed, because of the ravages of this trouble, the owners suffering heavy loss from richly-bred animals having to be slaughtered. However it is better to take the first loss than to run the risk of spreading the germ. A stable cattle industry requires healthy stock. Our climate is as rigorous and healthy as any. What is needed is the destruction of germ-spreading animals so that the danger of our healthy stock becoming infected is negligible. Selling breeding animals known to be infected to an innocent unsuspecting breeder who is probably just starting into pure-breeds is a crime worthy of severe punishment. Honesty is a good policy in the cattle business as in all other lines of industry. A clean herd should be the aim of every breeder.

Toronto is to get the big National Winter Show, but the location does not alone insure success. The stockmen must get behind it in a body.

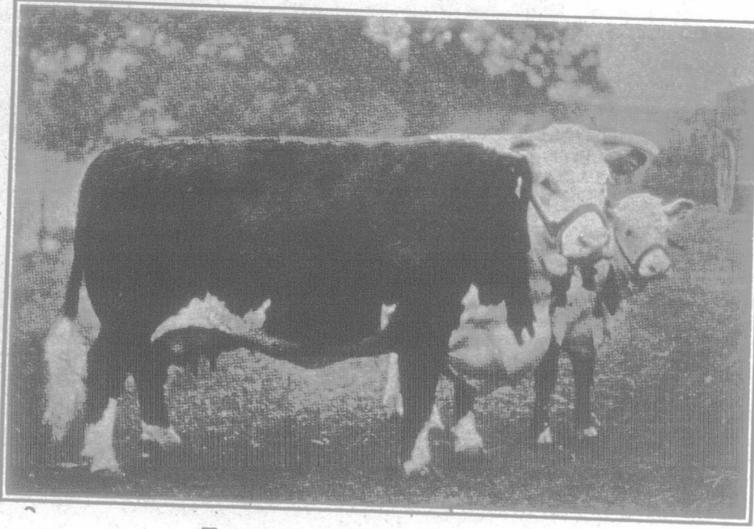


Line-up of Shorthorn Senior Bull Calves at Toronto. Augusta Supreme, shown by Geo. Amos & Son, Moffat, is standing at the top of the line.

Is the Fall Litter Profitable.

EDITOR "THE FARMER'S ADVOCATE":

Many think that the fall litter is not profitable and that it is better policy to raise and fatten one litter a year. The advisability of raising the fall litter depends largely on the time litters are born, equipment and feeds available. Fall litters should not arrive later than September, as the weather during September gives the small pigs ample chance to exercise outside, and they can be well weaned before the real cold weather sets in. Litters that are born later must be provided with dry, comfortable quarters, as cold and dampness go hand in hand with unthrifty pigs. Litters housed in a cold pen, huddle together and do not exercise. Dampness tends to coughing and rheumatism, with the result that at six weeks, instead of shiny-coated, full-blooded pigs that scamper here and there about the pen you have anaemic pigs, lacking in vitality that have to be stirred out of their nests. Such pigs usually get worse after



Typey Hereford Cow and Her Calf.

weaning, and if they survive the winter are most unprofitable feeders.

A low straw shed, if properly constructed, is dry and warm. It should provide a good sleeping place for the sow and litter, sufficient space for the little pigs to take exercise, and the approach should be from the south so that the cold winds are shut out.

The spring litter, as soon as it leaves the nest, roots about in the earth, eating worms, bugs and grass. This is denied the fall litter, and no matter how carefully the sow may be fed, the conditions are more or less unnatural. To overcome this, a couple of sods daily—if they have been previously stored—will be found of great interest to the youngsters. Sliced roots, cabbage leaves or well-cooked potato peelings and, in fact, anything green may be scattered in small quantities on the floor. Aside from the food and corrective value of green feeds, they help to make the pigs take exercise, as, even if they do not eat them, they will spend a lot of time rooting about among them. When two to three weeks old, little pigs usually begin to eat food, and some skim-milk should be fed in a small trough in a creep separate from the sow. Gradually add some sifted oat chop and shorts.

Fall litters should not be weaned as early as spring litters, in order that they may be stronger and more accustomed to eating before weaning. Ten weeks would not be too old. If the pigs are vigorous at weaning time, there is no reason why any serious difficulty should be experienced. When weaned at ten weeks of age they are already accustomed to eating and little change need be made in the ration, except to increase

it sufficiently to meet their requirements. Skim-milk is of prime importance for the fall litter and success cannot be expected if it is dispensed with. Add sufficient sifted oat chop and shorts to make a thin slop. As the pigs get older, more meal can be added and when well weaned barley chop may be added to the oats and shorts. The feed should always be given warm, in fact, better results are obtained by warming all feed for pigs during the winter. Feed only what the pigs will clean up readily. Salt should be fed regularly. The following mixture may be placed in a box in the pen, or fed a handful in the feed for every 6 or 8 pigs: 50 lbs. common salt, 1 lb. sulphur, 2 lbs. powdered wood charcoal, 10 lbs. slacked lime.

The man who raises the fall litter must expect that his finished pork will cost him more than pork reared during the summer because he cannot utilize the cheap feeds to the same advantage. On the other hand, he has a good chance to get a higher price for his pork as it is ready for market when a fewer number of hogs are being offered. Brood sows are also more apt to be regular breeders if raising two litters a year. Consequently, the man who is properly equipped, grows most of his own feed and is a good feeder should produce winter pork at a good profit.

A. A. McMILLAN.

Maintenance of Accredited Herds.

Both in Canada and United States an effort is being made to eradicate tuberculosis from the herds. What is known as accredited herds are being established in both countries under the supervision of the Health of Animals Branch of the Department of Agriculture. We understand that in the United States a large number of herds have been entered under this scheme and undoubtedly it will be popular in Canada, at least it should be. The following regulations for the establishment and maintenance of tuberculosis-free accredited herds of cattle sent out by F. Torrance, Veterinary Director-General, Ottawa, are self explanatory.

1. A tuberculosis-free accredited pure-bred herd is one which has been tuberculin tested by the subcutaneous method, or any other test approved by the Veterinary Director General, and applied by the regularly employed veterinary inspectors of the Health of Animals Branch of the Federal Department of Agriculture. Further, it shall be a herd in which no animal affected with tuberculosis has been found upon two annual or three semi-annual tuberculin tests, as above described, and by physical examination.

2. The entire herd, or any cattle in the herd, shall be tuberculin tested or retested at such time as is considered necessary by the Veterinary Director General.

3. No cattle shall be presented to the tuberculin test which have been injected with tuberculin within 60 days immediately preceding or which have at any time reacted to a tuberculin test.

4. No herd shall be classed as an accredited herd in which tuberculosis has been found by the application of the test, as referred to in paragraph 1, until such herd has been successfully subjected to two consecutive test with tuberculin, applied at intervals of not less than six months, the first interval dating from the time of removal of the tuberculous animals from the herd.

5. Prior to each tuberculin test satisfactory evidence of the identity of the registered animal shall be presented to the inspector. Any grade cattle maintained in the herd or associated with animals of the herd, shall be identified by a tag or other markings satisfactory to the Veterinary Director General.

6. All removals of registered cattle from the herd, either by sale, death or slaughter, shall be reported promptly to the said Veterinary Director General, giving the identification of the animals, and, if sold, the name and address of the person to whom transferred. If the transfer is made from the accredited herd to another accredited herd, the shipment shall be made only in properly cleaned and disinfected cars. No cattle shall be allowed to associate with the herd which have not passed a tuberculin test approved by the Veterinary Director General.

7. All milk and other dairy products fed to calves shall be that produced by an accredited herd, or, if from outside or unknown sources, it shall be pasteurized by heating to not less than 150° F. for not less than 20 minutes.

8. All reasonable sanitary measures and other recommendations by the Federal authorities for the control of tuberculosis shall be complied with.

9. Cattle from an accredited herd may be shipped to the United States accompanied by the certificate of the Veterinary Director General, without further tuberculin test for a period of one year, subject to the rules and regulations of the State of destination.

10. Strict compliance with these methods and rules shall entitle the owner of tuberculosis-free herds to a certificate, "Tuberculosis-Free Accredited Herd," to be issued by the Veterinary Director General. Said certificate shall be good for one year from date of test unless revoked at an earlier date.

11. Failure on the part of owners to comply with the letter or spirit of these methods and rules shall be considered sufficient cause for immediate cancellation of co-operation with them by the Federal officials.

12. Whenever in carrying out this order it is necessary to slaughter an animal or animals for the eradication of tuberculosis from a herd, the animal or animals shall be valued and compensation awarded as provided in Sections 6 and 7 of the Animal Contagious Diseases Act.

Persons desiring to enroll their herds under these regulations should apply to the Veterinary Director General, Ottawa, who will forward the official forms.

Bricker's Shorthorn Sale.

J. C. Bricker, of Elmira, disposed of 35 Scotch-bred Shorthorns at very satisfactory prices, on Thursday, November 6. There was a big crowd in attendance at the sale, and the good things sold quickly. The highest-priced animal of the sale was Princess Pat, a five-year-old Cruickshank cow about due to freshen. She is a heifer of show calibre and went to the \$1,000 bid of J. J. Elliott, Guelph. Missie's Marquis, the herd sire, a deep-fleshed, stylish individual, with show-ring conformation, went to the bid of C. J. Stock, Tavistock, for \$635. He is a Missie-bred bull, sired by Golden Marquis, and considering his quality he was a bargain at the price. In the sale were animals of such breeding as Mysie, Mina, Waterloo Princess, Miss Ramsden, Miss Buckingham, Clementina, Matchless and Lovely, and with these bidding was brisk at all times. The thirty-one animals selling for over \$100 brought a total of \$9,340. There were only two or three youngsters which sold below the \$100 mark. Following is a list of the animals selling for \$100 and over, together with the names and addresses of the purchasers:

Missie's Marquis, C. J. Stock, Tavistock.....	\$ 635
Elmira Mildred, R. S. Robson & Son, Denfield....	430
Elmira Mysie 2nd, Geo. Nesbitt, Palmerston.....	275
White Mysie, Wm. Stephenson & Son, Science Hill.....	295
Roan Mysie, A. & G. Forbes, West Montrose.....	200
Princess Pat, J. J. Elliott, Guelph.....	1,000
Waterloo Princess 39th, Wm. McLean, Kerwood..	465
Bull calf, Chas. Rutherford, Wallenstein.....	125
Mina Ramsden, W. B. Annett, Alvinston.....	300
Polly Buckingham, Wm. Swanson, Rockwood....	460
Heifer calf, J. F. Husband, Rockwood.....	200
Clementina Empress, Wm. McLean.....	510
Royal Jilt's Pride 2nd, W. B. Annett.....	230
Mina Wreath, J. J. Elliott, Guelph.....	400
Fanny Claire B, J. J. Merner, Seaforth.....	330
Matchless 12th, R. S. Robson & Son.....	265
Lady O'Argyle, A. & G. Forbes.....	210
Lovely Erin 2nd, W. R. Elliott & Son, Guelph....	500
Dashwood Beauty, W. B. Annett.....	305
May Beauty, V. Snider, Waterloo.....	250
August Rose, A. & G. Forbes.....	150
Kirklevington 46th, Alex. Withers.....	100
Fillcrest Mina, Wm. McLean.....	265
Buttercup 2nd, Ed. Scroggie, West Montrose.....	120
Heifer calf, Stanley Campbell, Palmerston.....	100
Butterfly Beatrice, Ed. Scroggie.....	155
White Blossom, Milton Weber, West Montrose....	140
Maggie May 4th, C. J. Stock.....	220
Roan Butterfly, Ed. Scroggie.....	190
Crimson Duke, Geo. Allendorf, Moorefield.....	125
Maple Leaf Jealousy, J. J. Elliott.....	390

Ontario Aberdeen-Angus Breeders Sale.

On Wednesday, November 12, the Angus breeders of Ontario, held an auction sale in Winter Fair Buildings, Guelph, at which they offered some of their best things to the public. The crowd was not large and bidding was not nearly so brisk as it might well have been considering the quality of the offering. The top of the sale was Larkin's year-old heifer, Stumpie of Larkin Farm, 4th, the junior champion female at Toronto National. She is a sweet thing, and went to the \$660 bid of G. C. Channon, of Oakwood. The Larkin Farms consignment made considerably the highest average, it being \$400. Among the consignors were J. D. Larkin, Lowe & Heibin, J. Bowman, G. C. Channon, T. B. Broadfoot, Robt. McEwen, K. Quarrie, and A. Cox. The following is a list of the animals selling together with name and address of purchaser.

Elm Park Bert, B. Becks, Manitoulin.....	\$200
Middlebrook Rover 10th, Jno. Shield, Wingham....	275
Elm Park Pat, J. C. Sharp, Terra Cotta.....	295
Elm Park Punch, Wm. Darroch, Palmerston.....	185
Trojan of Alloway 2nd, A. Cox, Belwood.....	165
Balmedie Lad, T. S. Doyle, Guelph.....	140
Elm Park Baron, D. R. Thomson, Iona Station.....	190
Zora of Alloway, J. A. McLeod, Plainville.....	100
Balmedie Pride's Boy, W. J. Fasken, Elora.....	140
Balmedie Gamrie, J. A. McLeod, Cobourg.....	135
Lady Cheerful of Larkin Farm 2nd, W. J. Fasken..	145
Heather K. 2nd, Kenneth Quarrie, Belwood.....	185
Alloway Rose, Geo. Stoddard.....	210
Springfield Kindness, W. J. Fasken.....	105
Springfield Mayflower, A. W. Beattie, Blair.....	105
Burnside Maid 4th, Sir Edmond Walker, Lefroy....	250
Burnside Maid 8th, A. W. Edwards, Watford.....	250
Middlebrook Pride 25th, Jno. Shield.....	285
Alloway Trojan, Wm. Darroch.....	180
Balmedie Pride 7th, K. C. Quarrie.....	240
Balmedie Pride 8th, W. J. Fasken.....	140
Balmedie Pride 9th, C. K. Jarvis, Milton.....	375
Balmedie Pride's Beauty, J. A. McAllister, Guelph..	190
Balmedie Morlich, B. Becks.....	150
Liza of Sunny Acres, Lewis Beer, Arthur.....	160
Liza of Sunny Acres 2nd, Lewis Beer.....	265
Mayflower of Innerleithen 3rd, W. H. Thom, Auburn	315
Tartan Madonna 4th, B. Becks.....	270
Liza of Sunny Acres 3rd, Geo. Stoddard.....	335
Queen of Maple Bank, A. Barber, Guelph.....	110
Elm Park Beauty 5th, Geo. Stoddard.....	355
Elm Park Pride 19th, G. C. Channon, Oakwood....	400
Rosey Bright 6th, L. Beer.....	215
Forest Farm Fair Lady, L. Beer.....	140
Pride of Larkin Farm 4th, W. French, Elora.....	460
Stumpie of Larkin Farm 4th, G. C. Channon.....	660
Bravo's Peer of Larkin Farm, W. French.....	180

Live Stock Prices in Great Britain.

Statistics concerning pedigreed Shorthorn cattle sales in Scotland this year reveal an extraordinary demand. All told, 1,062 bulls have been sold for £224,919 9s., or an average of £211 15s. 9d. each; 122 cows have realized £26,411 13s. 8d. or £216 9s. 9d. each; 48 two-year-old heifers have made £10,203 8s. or an average of £212 11s. 5d. each; 161 yearling heifers have fetched £34,328 6s., or £213 4s. 4d. apiece; and 317 heifer calves have aggregated £79,530 3s. or £250 17s. 7d. each. In all, 1,710 head of Scots beef Shorthorns have returned £375,392 19s. 8d., or an average of £219 10s. 6d. To prove how values have appreciated of late years, it can be recalled that in 1890 some 1,153 head averaged £25 7s. 3d.; in 1900, 915 head realized £31 3s. 5d. apiece; in 1910, the 1,301 sold made £46 1s. 11d. apiece; in 1915, the 1,403 disposed of were returned at £51 17s. 6d. each; in 1916, 1,558 head made £75 15s. 9d. each; in 1917, 1,472 fetched £99 6s. 7d., and in 1918 the 1,651 sold realized £138 13s. each. Highest price for bulls this year was the £5,565 paid for one of William Duthie's calves; two cows made £787 10s. this year; one two-year-old heifer also fetched a high price; one yearling heifer realized £1,102 10s.; one heifer calf made £2,100 at J. Durmo's sale, and another £1,470 at the Aberdeen October joint sale.

Champion Shire colt foal at Peterborough sale, on October 25, realized 1,250 guineas. This was paid for a son of Champion's Clansman, a rising young sire by Childwick Champion.



A Pig in a Poke.

Argentine and Danish bull buyers were in evidence at Birmingham Shorthorn sale where E. N. Casares gave 2,000 guineas for Mr. Raphael's Shenley Fidle Marshal, and 1,700 guineas for Sir Herbert Leon's Blatchley Sentinel. Both bulls go to Buenos Aires. Sir Owen Philipps got 750 guineas for Kilsant Crown.

Strong store cattle made up to £43 10s. in Shrewsbury, or some 76 shillings per live cwt. They were Shorthorn-bred cattle of nearly 11½ cwt. each. Hereford steers made 8½ cwt. and fetched 68 shillings per live cwt.

Agricultural land still continues to fetch big prices in Britain. The Kerry estate, in North Wales, realized £180,000, or £50 per acre. A belt of timber was sold for £60,000; Lord Harlech's estate, in Montgomeryshire, realized £84,060, or an average of £55 per acre. Some small holdings made up to £80 an acre. The Fernhill estate made £100 an acre for pasture fields, and £52 an acre for "mixed" farm lands. ALBION.

THE FARM.

Sunflowers for Silage.

Experiments are being extensively conducted to ascertain the value of sunflowers as silage and to determine just how successfully they will replace corn in regions where the later is not sufficiently hardy to make its cultivation practicable. In some parts of Eastern Canada, in New Ontario and throughout the West, sunflowers may be found a valuable silage crop, but so far the matter has not got beyond the earliest experimental stage in Canada. Nevertheless farmers in northern latitudes where corn does not do well should follow these investigations closely for the results so far are promising.

Peas, oats and vetches have been found a good substitute where corn could not be produced successfully, but sunflowers may surpass that mixture in yield and thus, if as strong or stronger in feeding nutrients, prove it to be superior for silage purposes.

A representative of "The Farmer's Advocate" visited the Manitoba Agricultural College during the month of July, this year, and there saw growing three acres of sunflowers for silage purposes. Results have been awaited with considerable interest, and recently a report has come to hand. Prof. T. J. Harrison, Head of the Field Husbandry Department of the College, comments on the experiment thus:

"To make live-stock raising profitable, it is necessary to have some succulent feed for winter use. In the West field roots have never been in favor because of the cost of production and the difficulty of storing. Silage growing has not been an unqualified success, because corn is not hardy in all parts of the Province. In an endeavor to solve this problem the Field Husbandry Department of the Manitoba Agricultural College has been growing and ensiling different crops: Corn, oats, millet, sudan grass, sunflowers, etc. So far sunflowers give promise of being one of the best substitutes for

corn, especially in the southern part of the Province, where oats do not give a heavy yield of green matter per acre. The sunflower is much more hardy than corn, in fact, it will stand several degrees of frost in the fall with no apparent injury. It can be sown in drills the same as corn and inter-tilled, thus making a substitute for summer-fallow. Lastly, it gives a large yield per acre. This year from a three-acre field of sunflowers the Field Husbandry Department harvested 90 tons of green forage. This was put into the silo and will be fed this winter in comparison with corn silage.

"The crop was produced at the following cost: Disking, \$3.42; harrowing, \$1.69; seeding, \$3.90; thinning, \$5.25; cultivating, \$0.72; weeding, \$0.30; cutting, \$22.25; hauling and ensiling, \$138; cost of seed, \$4.80. This makes a total of \$186.40 for 90 tons, or \$2.09 per ton. There was no cost for land charged up against the crop as the land would have been summer-fallowed, and, therefore, not producing, had it not been put in sunflowers."

Is the Simplification of Law Possible?

EDITOR "THE FARMER'S ADVOCATE":

There has come into my hand recently a small pamphlet entitled "Law Reform" which contains some food for thought. The writer begins by saying every man, woman and child is vitally concerned about each and every law, but that as a matter of fact they are ignorant of what the laws are and have to be constantly consulting lawyers. As he says, "If a tenant puts a pump in the well he does not know whether he owns the pump or whether it belongs to the landlord. If your neighbor's chickens destroy your flower bed, you do not know whether to send the rest of the flowers to the neighbor or keep the chickens." At one time if a man wanted to borrow money he had to have a lawyer draw a document or bond which expressly stated what the penalties would be if the loan were not paid according to the terms mentioned. That time is past. Now, if you want to borrow money, all you have to do is to fill up a small slip of paper or sign a note; no elaborate legal document is required and you do not have to consult a lawyer in the matter. Is it not possible that the simplification of law which has taken place in this particular matter might be extended to many other matters? At the present time if you buy houses or real estate you have to fill up a very elaborate document called a deed. Is this necessary? Is it any more necessary than the loan bond was in former days? As the writer remarks "stockbrokers transfer millions of dollars worth of stock in one minute, while it takes two lawyers a week to transfer the title of a ten dollar burial plot," and he suggests the following document as applied to the transfer of land: "In consideration of one thousand dollars I hereby transfer all my right to the east half of lot fourteen in the second concession of the township of Brighton, County of Northumberland, unto James Young, and my wife bars her dower." Not being a lawyer I do not venture an opinion as to whether or not such a document would be sufficient. But those who have been impressed as I have with the tediousness and prolixity of our legal phraseology will welcome any suggestion of this kind. It is possible that the writer of this pamphlet goes too far, but it seems quite apparent to me that some very marked reforms might be made in our laws and legal documents which would conduce to economy, and certainly this is no time for waste of any kind.

I venture to suggest another thought in this connection which is not dealt with in the pamphlet to which I have referred. It is this: that if our statute laws were of a more general character and their interpretation left more to the judges than they are at present justice might be more frequently done. I remember reading once of a comparison between the number of lawyers and laws in Switzerland, and those of the United States. In the former country laws were relatively few and lawyers were few. The application and the interpretation of the law was left more to the individual judgment of the judges and, consequently, fewer lawyers were needed, whereas in the United States the laws were so many and so varied and so minute in their details that it was practically necessary to have a very large number of lawyers. There is indeed something to be said for the old Hebrew custom of appealing to the judge sitting in the gate. He was given the duty of applying and interpreting a very concise and simple law. Conditions have changed of course, since that time and something of a more detailed character is probably necessary, but as it was said of the making of books that there is no end, so it may be said of the making of laws. Our statute laws are even now so voluminous that it is practically impossible for any one to become acquainted with all of them. And as for our common law it is even more impossible to become acquainted with the basis thereof in the multitudinous "precedents and cases", upon which this law has been established. It is indeed reported of a certain Lord Chancellor in England that he exclaimed: "God forbid that I should know the law." And if such a one cannot compass the law what chance is there for either a layman or a common lawyer to do so? Not being a lawyer and without any extensive knowledge or intensive study in this subject I cannot dogmatize. The matter, however, is one in which the ordinary man is interested, and if it were possible by simplification of our laws and by bringing our legal documents up to date to save time and money and reduce the number of lawyers necessary such would be worth while. At all events I submit these statements and ideas for what they are worth.

Brant County, Ont. W. C. GOOD.

Corn Experiment in Lincoln County

EDITOR "THE FARMER'S ADVOCATE":
Under the auspices of the county branch of the Ontario Department of Agriculture, a corn variety test was conducted on my farm in Lincoln County this past season with a view to ascertaining the variety of silage corn best suited for the Niagara Peninsula. The corn was all planted on June 4, and cut on October 4. Following are the comparative results:

BAILEY.	
Weight at cutting.....	11 lbs.
Dry weight, two weeks later.....	7 lbs.
Maturity of ear at cutting.....	late milk
GOLDEN GLOW.	
Weight at cutting.....	8 lbs.
Dry weight two weeks later.....	5 lbs.
Maturity of ear at cutting.....	dough stage
WHITE CAP YELLOW DENT.	
Weight at cutting.....	8 lbs.
Dry weight, two weeks later.....	5 lbs.
Maturity of ear at cutting.....	ripe
WISCONSIN NO. 7.	
Weight at cutting.....	18 lbs.
Dry weight, two weeks later.....	12 lbs.
Maturity of ear at cutting.....	ripe
LONGFELLOW.	
Weight at cutting.....	11 lbs.
Dry weight two weeks later.....	9 lbs.
SALZER'S NORTH DAKOTA.	
Weight at cutting.....	11 lbs.
Dry weight, two weeks later.....	8 lbs.
Maturity of ear at cutting.....	ripe

Wisconsin No. 7, therefore, appears to be the most vigorous and able to withstand the drought better throughout the season than any of the other varieties.
Lincoln Co., Ont.
ROBT. W. DOUGLAS.

Britain Getting Anxious.

The effect of the labor troubles in the U. S. A. is being felt upon the food situation in Britain. Shipments of the new "pack" of bacon have been delayed by the strike. The British Government's imports from the States are chiefly wheat, butter and bacon, together with eggs and dried fruits in small quantities. Canned meats and fruits, condensed milk, wheat and oatmeal products are largely imported on private accounts. American wheats are now due to come forward in considerable quantities.

The St. Lawrence ports of Canada will soon be closed by ice, leaving only Halifax and St. John available, and these are places without facilities for handling large grain shipments. It is customary in the winter for much Canadian wheat to come to England through the United States, and so, if transport is obstructed and the situation becomes more serious, special measures will have to be taken to maintain our rather limited stocks. Grain would probably have to be given preference by the Ministry of Shipping in the arrangement of freights.

The British Ministry of Food is buying butter to the value of £1,500,000 in the United States, but if the country has to wait for this addition to its supplies, no serious ill effect will follow. Most people in England have grown accustomed to being without butter.

Bacon stocks are fairly good, but the quality leaves much to be desired. If the American shipments of bacon are suspended, our own export of bacon to other countries can be stopped, and the supplies reserved for home consumption.
ALBION.

CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

How Boys and Girls Clubs are Conducted in Illinois.

With the increasing number of boys' and girls' clubs being formed in Canada during the past year or two, especially the calf, sheep and pig clubs, it is interesting to read a circular from the Illinois College of Agriculture, telling how these clubs are organized and developed in the United States. In Illinois the membership is open to any young person between the ages of ten and eighteen years. Each member of the club is supposed to enrol as a member, secure a calf, and keep monthly records of feed, gains, labor, and other interesting items, to exhibit the calf, and to file a final report with the leader of the club. The objects of organization are stated to be as follows: 1. To teach boys and girls the general principles of thrift, application, and perseverance; 2. To assist boys and girls to take part in the movement for better dairying; 3. To bring such agencies as breed associations, dairy associations, banks, and other commercial organizations, and the public school system, into close touch, in their effort to help boys and girls in work of community interest.

The following paragraphs are quoted from the circular, and explain the method by which the calves in this instance are purchased, and also give an idea of how club meetings may be conducted:

"Any plan for conducting a calf club should look to the education of the club member as well as to the development of the dairy interests of the community. It should assist the home and school in developing good citizens, as well as provide practical information in dairying.

EXTENDED OWNERSHIP PLAN.

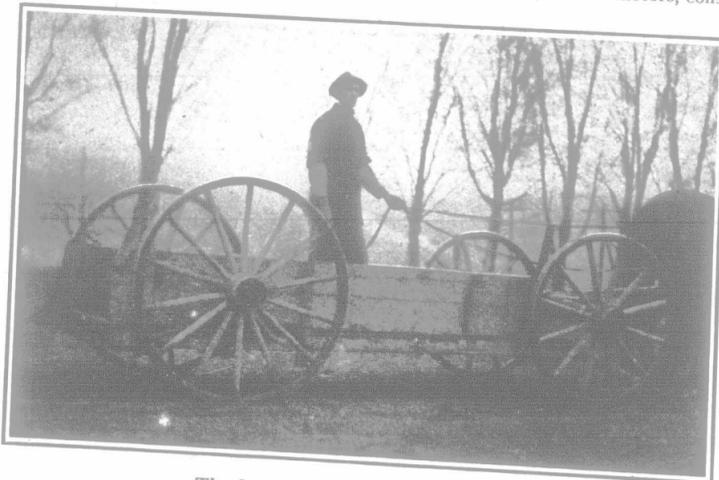
"In the extended ownership plan each club member feeds and cares for a heifer during a period which will extend beyond the time of first freshening. An opportunity is thus afforded for a more extended educational enterprise than is possible under the short-time plan.

"By the time the heifer freshens, the club member will have had considerable experience in caring for his animal, and as a member of a club he will have received, studied, and discussed the literature sent out by the Junior Extension Service. He should then be able to cope with the problem of the care of the cow at calving time. Information will also have been sent to him on the subjects of calf-raising, economical milk production, weighing and testing of milk, and the organization of testing associations. These subjects will have been thoroughly discussed in the regular club meetings.

"It will add greatly to the interest and ultimate success of a club organized under this plan, if some commercial organization will provide the club with one or more pure-bred bulls. In this way, the foundation may be laid for a community breed association.

SHORT-TIME OR AUCTION PLAN.

"In the short-time, or auction, plan, a bank or other commercial organization obtains the names and signatures of all boys and girls eligible for membership who wish to secure calves. Each member of the proposed club purchases a heifer and gives an approved note for the purchase price of the animal. The heifer is fed for a specified period, such as six months or a year. An auction is held at the end of the feeding period, at which each club member may sell his calf. The difference between the original investment plus other expenses, and the selling price, represents the returns for labor and profit. Each member reserves the right to bid in his own calf at the auction.



The Low-slung "Sloven" Wagon.
A handy rig for trucking about the farm.

CLUB MEETINGS.

"Organizing the club and securing calves for the members are only the first steps in a successful calf club. The club organization should embody educational as well as financial features. With this purpose in mind, meetings should be held at least once a month in a convenient place for the purpose of discussing the progress of the work. Increased interest in these meetings may be aroused by the occasional presence of an outside speaker to address the boys and girls on some special daily topic. The local club leader and advisory committee should assist the club officers in arranging for this part of the work.

"The following list of subjects is suggested. Information on these topics will be furnished upon application to the Junior Extension Service."

1. Care of the calf for the first six months:
 - a. Weaning the calf
 - b. Changing to skim-milk
 - c. Grain rations for calves
 - d. Roughages for calves
 - e. Calf diseases
 - f. Housing of calves.
2. Feed and care of the heifer from six months of age to time of freshening:
 - a. Grain, roughage, and pasture
 - b. Developing the heifer
 - c. Time and age to breed
 - d. Preparation for calving.
3. Care of cow and calf at time of freshening:
 - a. Economical milk production:
 1. Feeding, feed records
 2. Care
 3. Housing
 4. Weighing, testing milk, and method of keeping records.

5. The dairy sire:
 - a. Selection: type and pedigree
 - b. Care
 - c. Feed
 - d. Management.
6. Cow-testing associations
 - a. History and development
 - b. Organization
 - c. Economic and social benefits.
7. Community breed associations:
 - a. History and development
 - b. Organization
 - c. Economic and social benefits.

AUTOMOBILES, FARM MACHINERY AND FARM MOTORS.

The Horse as a Motor.

We hear a great deal about the gasoline engine, the tractor and the automobile, in comparison with the horse that for hundreds of years has been doing farm work all over the world. Very few people consider the horse as a machine, or a motor, for the simple reason that it possesses life. At the same time it is possible to consider the horse as a machine in which the feed consumed supplies the energy, which may be transformed into work when the horse is hitched to various machines or vehicles. Viewed as a machine, the horse is certainly a wonderful piece of mechanism. A self-feeding, self-controlling, self-maintaining and self-reproducing motor, it is at the same time capable of efficient service. Combustion must take place in the body of the animal, as in the interior of a motor, but because it takes place at a much lower temperature, a much smaller proportion of the heat value of the fuel is lost in the case of the horse than in the case of an ordinary engine. Consequently, a large percentage of the feed eaten by the horse is converted into work; a much larger percentage, in fact, than is possible with most motors.

The animal is really made up of a highly-complicated system of motors, consisting of muscles, which are aided

in their action by joints, and other provisions of nature which enable the animal to obtain a leverage during action. A muscle exerts its force in only one way, that is, by contraction, resulting in a pull, and for this reason muscles are arranged in pairs, as illustrated by the biceps and triceps of the forearm. This action of muscles has been likened to a steam plant, which, when working, converts a large amount of energy generated in the fire-box into mechanical energy, but as soon as the engine is stopped and the flow of steam from the boiler stops, the temperature rises rapidly.

The strength of muscles is considerable and may be illustrated by the biceps which acts upon the forearm. This muscle acts while at a right angle with the upper

arm as a lever of the second class, so-called, with a leverage of one to six. That is to say, the distance from the point of attachment of the muscle to the elbow is but one-sixth of the distance from the hand to the elbow; thus, a man is able to hold within the hand, when the forearm is held horizontally, a weight of fifty pounds, which necessitates an exertion of a 300-lb. force by the muscles. Sometimes the pull of the muscles as they act over the hock joint of a horse may amount to several thousand pounds. It is possible for the ox to develop only about two-thirds as much power as a horse, because he moves at a much slower speed.

The horse is well adapted to driving or overcoming horizontal resistance, but is not so well adapted for carrying loads. Man, on the other hand, can carry loads almost equal to that which can be carried by a horse, but even though the body is bent well forward he can drag but a small fraction of the load a horse can pull. The difference is in the shape of the skeleton; that of man being in the form of a column, suitable for bearing a load, while that of a horse is spread more or less horizontally so that he is able to draw upon a cart a load several times his own weight. The amount of resistance that a horse can overcome depends upon his own weight, his grip, his height and length, the direction of the trace, and muscular development.

The heavier the horse the greater the load he can pull, if only for the reason that he will adhere more closely to the ground. When a horse is pulling strenuously the tendency is to lift his fore feet from the ground, and occasionally it will be of assistance in enabling a horse to pull a heavy load, for the teamster to get on his back, thus helping the animal to hug the ground. One must, of course, use sufficient common sense in such a case and avoid doing more than giving the animal the necessary assistance. A weight heavy enough to become a burden, or interfere with the free drawing

power value of
Weight
but at
travelling
he can
expected
of the r
common
the reas
the wag
his feet
horse to

A low
over a t
can use
if the w
more eff
the rear
is thus
prove th
necessar
heavily
assumes

It wo
well wit
zontal.
backward
down to
pull a m
down up
upon hi
that in t
they hav
and the
this dow
although

The a
three-qu
overcome
of his w
for ten h
pound ho
power.
weight o
Such a h
to four-f

Is th

A lett
cate" ca
cheese fa
put out
to conde
have con
four year
by the m
discussed
Instructo
Western
has a rec
was able
purchased
been sold
year, and
five years

We fi
was sold
ago; Wes
factory th
factory.

Nilestown
years ago
None of
they are
of the mi
be added
subsidiar
prior to
factory, p
purchased
are now
other fact
closed las
closed tw
year, the
during th

Of the
actually
factories
stone and
company,
at these
factory.

Only
in the las
this is t
receives t
and trans
factories
brook, Mo
probable
and Gad's
operating
especially
factories l
new ones
From
much wo

power of the horse, would be likely to counteract the value of the added weight.

Weight will add to the horse's grip upon the ground, but at the same time if a horse be poorly shod and travelling upon a smooth surface, the amount of grip he can get will be negligible. Thus, horses that are expected to draw loads on icy roads cannot get any grip of the road without sharp calks upon their shoes. A common dirt road is excellent for drawing loads, for the reason that even when in the best condition for the wagon it enables the horse to get a good grip with his feet. Some roads are much more difficult for the horse to grip than others.

A low, long-bodied horse has a considerable advantage over a tall, short horse for heavy drawing work. He can use his weight to better purpose. Furthermore, if the weight of a horse is well to the front he can do more efficient work because there is a tendency to use the rear foot as the fulcrum of the lever, and the body is thus balanced more or less over the rear foot. To prove that weight in front is an advantage it is only necessary to remember that when a horse is pulling heavily he shows a tendency to lower his head and assumes more or less of a crouching position.

It would be easier for a horse to pull a load that is well within his power to move if the traces were horizontal. That is to say, if the traces extended straight backward from the point of his shoulder, instead of down to the level of the doubletree, the horse could pull a moderate load easier than when the load pulls down upon him. But when the load does pull down upon him it also helps to hold him to the ground, so that in the case of a heavy load, as horses are hitched, they have the advantage not only of their own weight and the grip they can get upon the road-bed, but of this downward pull, which gives them added power, although it requires a little more power to pull the load.

The average horse will walk from two to two and three-quarter miles per hour, and at the same time overcome resistance equal to about one-tenth or more of his weight. Work may be performed at this rate for ten hours a day. Assuming this to be true, a 1,500-pound horse will perform work at the rate of one horse-power. But 1,500 pounds is much above the average weight of a farm horse, which is about 1,100 pounds. Such a horse will work at the rate of about two-thirds to four-fifths horse-power.

THE DAIRY.

Is the Cheese Industry Declining?

A letter recently appeared in "The Farmer's Advocate" calling attention to the fact that a number of cheese factories in Western Ontario have recently been put out of business as such, and the milk transferred to condensed or milk powder factories. Cheesemen have complained a great deal during the last three or four years that the cheese industry is being threatened by the many purchases of factories. The other day we discussed this matter with F. Hens, Chief Dairy Instructor for Western Ontario and Secretary of the Western Ontario Dairymen's Association. Mr. Hens has a record of every factory in Western Ontario and was able to tell us almost exactly the number of factories purchased during the last five years, those which have been sold to milk product companies during the present year, and new factories that have been built in the last five years.

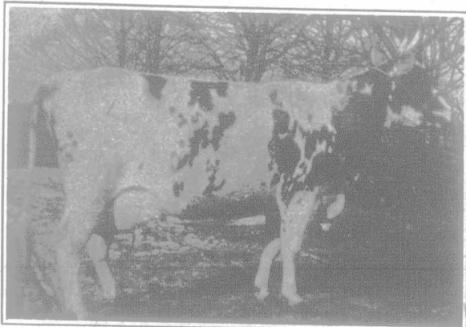
We find, for instance, that the Brookside factory was sold three years ago; Thamesford about five years ago; West Zorra about three years ago. The Hickson factory three years ago was turned into a milk powder factory. The Burnside factory was sold five years ago; Nilestown was sold in 1918; Harrietsville was sold four years ago, and the Mount Elgin factory five years ago. None of these factories were actually closed down, they are all acting as receiving stations for one or more of the milk product companies. To this list must also be added Glanworth, which has been turned into a subsidiary powder plant. Of all the factories purchased prior to 1919 in Western Ontario only the Culloden factory, purchased in 1918, and the Northwood factory, purchased in 1917, have actually been closed down and are now not receiving milk or making cheese. Two other factories, one at Avon, which was practically closed last year, and another at Bookton, which was closed two years ago, have both opened up again this year, the former having a larger make of cheese than during the last six or seven years.

Of the six factories purchased in 1919, only one has actually been closed—the Belmont factory. The factories at Verschoyle, Corinth, Westminster, Gladstone and Mapleton were all bought by a milk powder company, but the milk of patrons is still being received at these factories and then transferred to the powder factory.

Only one factory that has stopped making cheese in the last five years is still owned privately as before; this is the North Oxford factory, where the owner receives the milk of the former cheese factory patrons and transfers it to the milk powder factory. New factories have been built at Glen Myer, Eden, Cranbrook, Mount Elgin, Union Star and Brunner, while it is probable that two others will be built at Springfield and Gad's Hill. The decrease in the number of factories operating is, therefore, not so large as one might expect, especially since, so far as we could find out, only three factories have actually ceased to receive milk, while six new ones have been built.

From what we can understand, the situation is much worse in Eastern Ontario, particularly in the

districts about Brockville and Chesterville. Whether or not the situation is one to alarm those interested in the development of the cheese industry is a question that may be open to discussion, but those who have watched the development and progress of the dairy industry in Ontario for the last thirty years are inclined to believe that the situation will right itself naturally within a reasonable length of time. It is interesting, for instance, to note the development of the cheese industry in Ontario during the years of the war. Cheese is a concentrated milk product which was in immediate demand just as soon as war broke out. In 1915 we find that the production of cheese in Western Ontario was higher than it had been for many years, owing to the fact that cheese was commanding a good price. It is evident that at that time the cheese factories were paying relatively higher prices than could be paid by powder and condensed milk factories, because the latter had not yet found such a favorable market as they



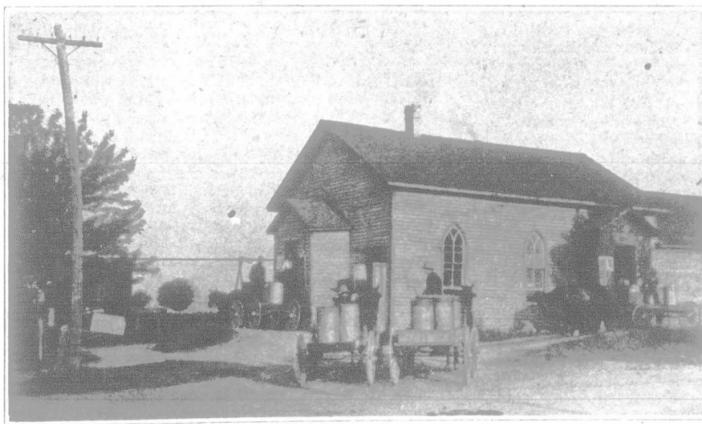
Betsy Brown.

Grand champion Ayrshire female at the Western Fair, London, 1919. She has three mature R. O. P. records, the largest one being 14,469 lbs. milk, testing 4.3 per cent. and 631 lbs. fat. Owned by A. S. Turner & Son, Ryckman's Corners, Ont.

are at present apparently enjoying. With the development of the foreign market for condensed, evaporated and powdered milk, these branches of the industry were in a position to demand and utilize a greater proportion of the milk supply, and as a result they have bought out several cheese factories in suitable localities as the easiest and most peaceable means of securing an adequate milk supply.

It is by no means certain, however, that the demand for these products will continue as at present, although it is probable that the demand will continue greater than before the war. Should the demand fall off, patrons would probably not find the market for milk so good at the powder factories and condenseries, with the result that cheese may again become relatively more profitable for them. Should this be the case they will have to build new factories for themselves, which, of course, will be an inconvenience.

The only fault we see about the whole situation is that if the cheese factory is sold outright to the milk products company, one of the markets for milk formerly open to the producer is closed. It is perfectly true that the making of cheese is only a means to an end, and that it is the total production of milk, and not the relative



Verschoyle Cheese Factory.

One of the biggest cheese factories in point of business in Western Ontario. Sold in 1919 to a firm manufacturing milk powder. Photograph taken in July when cheese was still being made.

quantity of butter, cheese or condensed milk manufactured, which is really the important thing. Milk production, and not cheese-making or butter-making, is the basis of the dairy industry, but at the same time it is always a good policy to keep the road open to more than one market. In our judgment it would be a good thing if all the factories which have been sold during the last few years had been retained by the producers themselves, or in some way controlled by them, so that if at any time cheese manufacturing offered a more profitable outlet for the milk, cheese-making could again be resumed. In the case of the North Oxford factory, this is still possible, although at present the milk is going away from the cheese industry. Dairymen should be prepared to take advantage of the varying demand for milk, and should be able to turn the volume of their supply either to cheese-making, market milk,

or whatever else may offer the best market. To do this it is almost necessary that factories be owned cooperatively by producers, because only in this way can the milk be swung into various channels with the least inconvenience.

Ontario's Position in Dairying.

Those who wish to speak in a complimentary manner of the Province of Ontario often call it the "banner" Province of the Dominion. Certainly this seems to be correct phrasing as regards the dairy industry. Officials of the Ontario Department of Agriculture tell us that in 1918 milk to the value of \$74,427,300 was produced in Ontario. There are, for instance, 970 cheese factories, which, in that year, took in 1,369,897,671 pounds of milk, from which was made 121,173,086 pounds of cheese, valued at \$30,293,271. Butter factories numbering 160 handled 736,336,800 pounds of milk, and manufactured 28,714,352 pounds of creamery butter, valued at \$14,357,189. Nine condensed milk factories utilized 157,803,513 pounds of milk, valued at \$3,519,000. Five milk powder factories handled 56,233,145 pounds of milk, valued at \$1,258,040.

Thus, in addition to \$25,000,000 worth of milk used in 1919 for the manufacture of ice cream, dairy butter, and required for rural consumption, the dairy factories of Ontario are seen to have taken in 2,320,270,939 pounds of milk, valued at \$49,427,500. Of 1,568,200 milch cows, furnishing milk to dairy factories in Canada, practically half, or 712,788, are located in the Province of Ontario. When we consider that the number of cows furnishing milk to factories is only forty-four per cent. of the total number in Canada, it is easily to be seen that Ontario can boast of well over a million dairy cows. In Ontario there were in 1917, 45,114 butter-factory patrons, 40,237 cheese-factory patrons, and a total of 96,255 patrons for all dairy factories in the Province. A vast quantity of whole milk goes from the dairy farms of Ontario annually to supply the city milk trade. Just what quantity is produced for this purpose it is very difficult to estimate, but Toronto alone with its 500,000 people has approximately a hundred milk distributors, a few of whom are doing business of very large size.

The dairy breeds represented in the Province are the Holstein, Ayrshire and Jersey, principally, with a few Guernseys. The percentage of pure-bred cows of these breeds is slowly but steadily increasing, although there are still hundreds of farms whereon the grade Shorthorn ranks as the representative of dairying, and often, it must be added, to some purpose. Ontario has every reason to be proud of what her pure-bred dairy cattle have done. Outstanding representatives of each of the three prominent dairy breeds owe their activity to the "banner" Province of the Dominion. May Echo Sylvia, with a record of more than 1,000 pounds of milk in seven days, 152.1 pounds of milk in one day, and 12,899.8 pounds of milk in 100 days, was bred in Eastern Ontario; and it was in Ontario also that she achieved world championship honors. Among the bonnie Ayrshires we immediately find Jean Armour, bred in Oxford County, and the first cow of the breed to make a record of 20,000 pounds of milk in one year. Not only does this record stand to her credit, but the Jean Armour family shows a combination of showing form and heavy-producing qualities that is seldom met with. And then among the beautiful Jerseys we find Sunbeam of Edgeley, bred only a few miles north of Toronto, in the County of York. Sunbeam of Edgeley as a four-year-old cow produced 18,744 pounds of milk, containing 926 pounds of fat, in one year, which is the highest record made by any Jersey cow in any of the provinces of Canada. Both the Holstein-Friesian Association of Canada and the Canadian Jersey Cattle Club have their headquarters in Ontario, and the great bulk of their membership also.

While a great deal has been accomplished in the development of the dairy industry of Ontario, there is still much more to be done. Not long ago we came across a dairyman of the County of Oxford whose average yield from seventeen cows for the year 1917 was 9,923 pounds of milk. These were grade cows raised on the farm and always bred to pure-bred sires. For more than fifteen years no single cow has been bought for this herd, but consistent grading up has accomplished a notable result. Doubtless other dairymen could be found whose careful work has brought them similar results, but for the great mass of Ontario dairymen there is still much to be done. Some very large dairy herds are to be found over the Province. In the recognized dairy districts, such as Dundas and Oxford Counties, in the eastern and western portions of the Province, respectively, it is very common to see herds comprising thirty or more cows. Milk cheques from the cheese factory or condensery sometimes run up to \$1,000 or more per month when the flush of milk is

n in June, and on one Oxford County farm that we know of 2,200 pounds of milk were being sent daily to the cheese factory in June, 1919, from a herd of sixty-five grade and pure-bred cows. The farm was 400 acres in size.

Perhaps the three great needs of the dairy industry in Ontario can be truly described as labor, organization and quality. Labor at the present time is a very serious handicap. Rural Ontario has been denuded unmercifully of its rural manhood, and before agriculture can "come back" the farms of the Province must have more men wherewith to till the fields. Dairying is dependent upon man labor, and dairying has, therefore, felt the lack of labor as acutely, if not more so, than any other branch of agriculture in Ontario. Our Governments have pledged themselves to the policy of securing suitable agricultural labor by immigration, and the dairy industry in the Province of Ontario should offer a good opportunity for the emigrant. Organization is not utterly lacking in Ontario, and, in fact, has been proceeding with great rapidity during the last few years. The dairymen's associations of Eastern and Western Ontario have been supported by the Government for many years, and have done a great deal of good work for the industry. The Ontario Milk and Cream Producers' Association is doing now, as a comparatively new organization, a splendid work for milk producers that requires only time and enthusiasm to bring to a successful conclusion.

Educative work such as these organizations could do in the way of improving dairy practices, encouraging the use of labor-saving machinery, stabilizing prices by advocating the payment for milk on the quality basis, could easily within five years' time increase the net return to the dairymen of Ontario by twenty-five per cent. annually. The elimination of the scrub bull, improvement in feeding methods, the use of the Babcock test in eliminating the boarder from the herd, each have their place in any scheme for improvement. There is no lack of opportunity for developing Ontario's dairy industry. Labor, organization and still more quality in our products is all that is needed to bring about the desired result.

More About Milking Machines.

We are continually meeting with some new expression of opinion as regards milking machines. There is no disputing the fact that the number of milking machines in use is steadily increasing, as are the numbers of firms manufacturing them. While it is perfectly true that one can find from one end of the country to the other a great many farms where milking machines have been purchased and are not now in use, it is also true that the milking machine has solved the labor problem to a considerable extent for very many hard-working dairy farmers, during the past four or five years. We are convinced that the milking machine will increase rather than decrease in popularity as manufacturers continue to make it more perfect in response to the suggestions and complaints of users, as well as the investigations of their own mechanical experts. We feel that the milking machine will prove of great assistance to farmers who have a sufficient number of cows milking steadily to warrant the installation of a machine, and who would give it the necessary care and attention. A machine that is used for such an important purpose, and which has to do with the yield of such a vital human food, and one so easily contaminated, must of its very nature be more exacting in the care which it requires than most other machines used about the farm. We are in receipt of a recent bulletin from the California Experiment Station from which we quote the following paragraphs as further evidence of the practicability of milking machines where the necessary care and attention is given to them.

"Milking machines have now been successfully operated in dairy herds in different parts of the country for more than a quarter of a century, and in many dairies several generations of cows have been milked by machines during this period. Owing to the difficulty of securing efficient and reliable milkers in recent years, especially while war conditions prevailed, machine milking has been adopted in a rapidly increasing number of American dairies during this period, and there are now perhaps few dairy sections in the country where milking machines have not been installed and are operated successfully.

"Practical experience with milking machines and numerous investigations of the work of different makes of machines conducted by experiment stations during the last decade or two have fully established the practicability and the economy of modern milking machines by this time; as a result, there is at present a consistent and, in many sections, a rather rapid transition from hand to machine milking in American dairy herds. This transition is retarded in some cases by a doubt in the minds of dairy farmers, perhaps especially by owners of valuable pure-bred herds, as to whether the cows will do quite as well when milked by machine as by hand, and whether machine milking will not necessarily have a tendency, at least in the case of some cows, to reduce their milk production for entire lactation periods as compared with hand milking, even if this would not be sufficiently marked to interfere appreciably with their future usefulness as dairy producers. Failures of certain milking machines in the case of individual herds, and the fact that conditions and results obtained in other sections are not known, doubtless account for this hesitation by some dairy farmers of the country to install milking machines.

"The use of milking machines is a practical and profitable method of increasing milk production by the

results of carefully conducted experiments at our own and other experiment stations, and is also borne out by the experience of practical dairy farmers in all parts of the country during the past dozen years or more. At the present time there are eight different makes of milking machines on the market in this state, any one of which may be confidently expected to do satisfactory work in the hands of a careful operator. Failures in machine-milking have been rather numerous in the past, from a variety of causes, chief among them being perhaps the fact that the owner did not fully understand the mechanics of the machines or appreciate the necessity of care in operating and keeping them clean, or of following up the machine-milking promptly by careful stripping. Of late years the failures have, however, greatly decreased in number, as the machines have been further improved in simplicity and efficiency, and the conditions for their successful operation are better understood. It is safe to say that a dairyman who introduces machine-milking into his herd with any standard make of machine on the market is now as much on trial himself as is the machine. The best remedy for failures in machine-milking is to become thoroughly familiar with the machine adopted, its adaptation to individual cows, and the requirements for keeping it in a mechanically perfect and sanitary condition.

"Milking machines have not as yet been as generally adopted in the dairy districts of our country as, for instance, in Australia and New Zealand. According to reliable reports received, there are but few dairies of over thirty cows in these countries that are not milking by mechanical means, and many smaller dairies are likewise using milking machines. With the present scarcity of reliable, efficient milkers, and the high cost of labor, feed, and dairy supplies, the necessity of reducing the cost of milk production becomes greater than ever before. It is possible to do this by either or both of the following methods. By increasing the production of the dairy herd through culling, use of good pure-bred sires and the modern methods of feeding and management, or by reducing the operating expenses of the dairy. The milking machine is an important aid in reducing these expenses. The days of hand-skimming of milk are long gone by, and everything points to the fact that we have now entered upon an era of machine-milking. It is the next step in the economical, efficient management of fair-sized or large dairies, and the experience of other dairy countries in regard to milking machines will undoubtedly be duplicated in this country.

"The investigations of this and other experiment stations have shown that milking machines properly operated do not injure the udders of cows, or cause garget or other udder diseases. Udder troubles are often due to causes that are not in any way associated with the method of milking practiced; they will occur at times in machine-milked, as well as in hand-milked herds, although less frequently when ordinary care is taken in operating the machine. The best way to avoid troubles of this kind in case of machine milking is to remove the machine as soon as no more milk comes down, and to finish the milking by hand without unnecessary delay. Prompt and careful hand stripping is a most important factor in successful machine milking, even though the machine used leaves only very small amounts of milk to be stripped out.

"In the selection of the particular make of machine, a number of points should receive consideration, besides first cost and nearness to service agency, such as cost of up-keep, depreciation, simplicity of mechanism and of cleaning. The various machines on the market differ considerably with regard to these points, and it is evident that no one machine stands out above the others in all respects; also that any farmer with a fair degree of intelligence and resourcefulness need not hesitate to install a milking machine in his dairy if he keeps twenty or more cows. In many cases it may prove advantageous to adopt machine milking also in dairies of twelve to fifteen cows, as it will make the owner less dependent upon or entirely independent of hired help. The actual saving in the cost of milking by machine over hand milking is, however, greater in the case of large herds than with small ones, and will, in general, be in proportion to the size of the herd. It has been shown that with proper care, and with careful, prompt hand-stripping, milking machines will have no appreciable effect one way or the other on the dairy production of the cows or on the general welfare of the herd, but they will not long render satisfactory service with careless handling and lack of cleanliness. For this reason, milking machines are most likely to prove successful when operated by the owner himself or by help directly interested in their success."

POULTRY.

Essentials in Securing Winter Eggs.

Pullets that have been well reared should mature in about six months, and it is good practice, as a rule, to put them into their winter laying quarters at about five months of age. This is desirable because it gives them an opportunity of becoming accustomed to new surroundings. In most cases they will have spent the first five months of their lives running freely over the farm, or such parts of it as they cared to visit. If, therefore, they are expected to begin laying as soon as maturity has been reached it is only good business to bring them in a little early so that they may become fully accustomed to being cared for under confinement, and to new kind of feed and a new type of surroundings. In addition to this, every careful poultryman, just the same as any other live-stock man, wants to get acquainted with his stock and must be more or less acquainted with its

fore he can secure the best results. If he has a month or so with the pullets before they begin laying he will be in a fairly good position to know just about what they will require.

The flock should be divided up carefully, where division is necessary, and if at all possible pullets should be put into the pens where they are going to stay for the remainder of the season. It is foolish economy to put into the laying pen birds that are not strong and vigorous. The careful poultryman will make selections from time to time during the growing season, gradually eliminating the weaker birds, so that by the time the flock goes into its winter quarters none but the strongest and most likely looking birds remain. There is not much use in putting immature birds into the winter-laying flock, because what is wanted is pullets that are mature and ready to produce eggs when the prices are best.

The average farm flock should contain somewhere in the neighborhood of one hundred laying hens, since this number can be carried economically on the average farm and will not require a great deal more attention than a much smaller number. The whole flock can, in such cases, be kept together in one pen if necessary, although for the highest individual production of eggs it would be better if there were four flocks of twenty-five each or at least two pens of fifty each. Where labor, however, is at a premium the larger number per pen will be found a little more economical.

So far as winter management is concerned, the problem which the poultryman has to face is to imitate as nearly as possible spring conditions in the winter. He must endeavor to make the environment of the flock such as will enable the birds to do their best without suffering unduly from the cold, or becoming weakened from too long confinement in stuffy quarters. Feeding is very important, and during the wintertime hens will require feeds that are more apt to keep them warm than those they should have in the summertime. Feeding will vary to a certain extent with the breed, but in general corn is a better winter feed than a summer feed, because it enables the birds to maintain the body heat and will also help to keep up normal production. Hot mash fed twice a week during the very cold weather will help the birds to keep themselves warm, and have been found to have a very pronounced effect upon the production of eggs. Birds that are closely confined or prevented from ranging during the winter must be supplied with plenty of green and succulent feed, as well as plenty of fresh water and a ration in which variety is a distinctive characteristic. The feed should be in sufficient quantity to supply the demand for heat and for the raw materials used in egg production. It must be plentiful enough to keep the birds in good condition, not very fat and certainly not thin.

Exercise is a primary requirement for the hen that is expected to lay more than a small number of eggs. The good layer is always a hard worker; she belongs to the industrial classes, and shows it by the continual expenditure of energy from the time she gets off the roost in the morning until she finds it again at night. She is continually scratching and busying herself from the beginning to the end of the day, storing up food materials for the formation of eggs. Exercise, therefore, is not something that can be dispensed with, and if necessary, the hens must be forced to take it by making them work for their feed. The lighter breeds are easier to handle in this respect, because they will be more apt to take plenty of exercise of their own volition. The heavier breeds, however, are more sluggish by nature and must be forced to work for their feed to a greater extent than the lighter breeds. Better results can be obtained where the birds are kept in light, airy houses, and forced to scratch in fairly deep litters for their feed, than where they are turned out for exercise on ground that is wet and chilly.

Other items in the winter management of poultry include such things as health of the flock, sanitation and careful attention to details. It is absolutely necessary that cleanliness be observed, because dirt of any kind leads to the introduction of vermin and disease. The litter should be changed fairly frequently, at least three or four times each winter. If, when the flock is put into laying quarters in the fall, about three inches of clean litter is put on the floor, this will gradually wear down and some fresh litter can be added from time to time, on top of the old. The best material for the farm flock is undoubtedly clean, short straw because this hides the grain better than almost anything else, birds can eat it if they want to without becoming crop-bound, and besides it looks clean in the poultry house. If fresh litter be added from time to time it will not be necessary to clean the house so often, provided the house is well ventilated.

Value of Trap-Nest.

EDITOR "THE FARMER'S ADVOCATE": That it might encourage beginners, I give here the results I have obtained from five years trap-nesting for high egg production. I only run a small plant to occupy my spare time. I raised 16 pullets and sold 6 of them in 1918. The ten pullets laid to 31st October, 2,034 eggs. At 60 cents per dozen, the value of eggs is over \$100. The cost of feed at \$3 a bird is \$30, leaving a profit of \$70. These pullets have a few weeks to go to complete their pullet year. The highest pullets are No. 71, 260 eggs; No. 76, 254; No. 74, 235; No. 77, 218 eggs. It is interesting to note that although I started with the best bred-to-lay stock I could buy the highest record I had the first year of trap-nesting was only 123. This is an example of what can be done with the trap nest. I have a pen of pullets in the World's Egg-Laying Contest, commencing November 1, 1919, at Ottawa, Frontenac Co., Ont. F. J. COLDHAM.

A Precocious Bird.

EDITOR "THE FARMER'S ADVOCATE":

I am sending you a little record of one of my pullets. Can it be beaten? She was hatched from an incubator May 1, 1919, started to lay September 9, and yesterday, November 6, we found her in the cornfield with a flock of 9 chicks. She is a Partridge Rock on Laird Bros.' farm, Chatham Township. A. SUBSCRIBER'S WIFE.

[Note.—While the achievements of the pullet men-

tioned by our correspondent are quite within the range of possibility; we have no record to match the feat. Perhaps others have.—EDITOR.]

HORTICULTURE.

A representative gathering of fruit men from all over Canada met while the late "Dan" Johnson was Fruit

Commissioner, and decided on a standard apple barrel for the Dominion. This put an end to an contentious matter which existed for years and it was an exceedingly good move. However, some of the old Nova Scotia barrels, which are small in size, have been in use this fall and the Fruit Trade Commissioner in Liverpool cabled on October: "Urge every possible effort to hold back old Scotian barrels. Few coming forward cause endless trouble when values approximate maximum and tend depreciate values for standard barrels."

Color and Quality Mark Revival of Ontario Horticultural Exhibition.

Ontario Fruit Growers in Convention Enjoy a Practical Program Covering Many Live Topics.

The Ontario Horticultural Exhibition is again to be numbered among the regular agricultural events that take place throughout the year in Ontario. For several years before war came to wreck all peaceful plans, a successful exhibition of horticultural products had been held regularly in the month of November under the auspices of the existing associations representing the four interested branches of agriculture, namely, fruit growing, vegetable growing, floriculture and beekeeping. When the war came in 1914, plans for a show more successful than ever were already under way, but were quickly abandoned for the more urgent and necessitous duties of war time. For the ensuing five years horticulture in Ontario lacked the stimulus of the big annual exhibition, and, indeed, by many of the less interested, the show was, no doubt, forgotten. With the return to peace conditions the machinery of the Exhibition Association was once more put into running condition, and plans laid for an exhibition in 1919, which would mark the return from war to peace for all horticulturists, and once more serve, annually, to mark the progress of art and practice in commercial fruit and vegetable production and amateur gardening.

Thus it was that in Toronto last week the Ontario Horticultural Exhibition was again visited by lovers of horticulture from all over the province. From Tuesday, November 11, to Friday the 14th, the exhibits of fruit, flowers, vegetables and honey were admired and commented upon by all who came to the Canadian National Exhibition grounds. It was only natural, we believe, that the show should have suffered markedly in number of exhibits as a result of the long break between 1914 and 1919, but, on the whole, the exhibits were as satisfactory as could have been expected. In fact, those who had the responsibility of management were well pleased. Exhibits in all four classes of products were very creditable to say the least, those in the florist and vegetable sections being the most numerous comparatively. Fruit and flowers are always the two chief attractions, and certainly the floral exhibit, particularly the displays by the Toronto Retail Florist Club, were far better than ever before. It is not our place to comment very fully upon this section of the Exhibition, but we do wish to give full praise to these very pleasing displays. The vegetable exhibits showed up well in numbers, much larger in reality than would be apparent to a casual observer, because they were crowded fairly closely together and did not occupy, therefore, a great deal of space. The specimens exhibited were creditable as to quality, almost without exception. Honey exhibits always make for good displays, and this year were prominently and pleasingly placed in the centre of the building.

THE FRUIT EXHIBIT.

As to the fruit, much more can and should be said because it is the fruit, which along with the flowers, attracts the crowds, and it is fruit growing, particularly as it applies to apples, which has suffered most from the war. All told, there were only 19 fruit exhibitors. At this season of the year apples predominate, and just at this time too, Fameuse, McIntosh Red, Baldwin and Spy are all available to lend color and quality to the show. The apples bulk large, both in display and prize money, since there are prizes for as much as a 300-box exhibit. Before the war there used to be several of these large entries, but this year, creditable though their exhibit was, Lynndale Farms, Simcoe, were alone in this class, while they had only one competitor in the 100-box class. The smaller classes of boxed apples were better filled, but even in the single box variety classes there were only two or three entries. Some of these were especially fine, however, particularly those from the Hamilton orchard at Collingwood. W. L. Hamilton knows apple exhibiting perhaps as few other men in the province know it, but he knows it only because he has taken a pride and delight in showing to the public the size, color and quality that the Georgian Bay District can bring forth. Certainly his first-prize box of Spies, that won the sweepstakes prize for the best box of apples in any class, was something to marvel at, and was the delight, not only of the casual sightseer, but of all fruit growers. Such color and quality are rarely met with, and should have revived the failing hearts of any would-be fruit grower. His first prize barrels of Spy and Baldwin also drew much admiring comment, and certainly make one wish that it were possible to see more of such fruit in a day's travel. Commercially there must be a great future for fruit of anything like this quality, and it was indeed gratifying to note that although the exhibits were relatively few, the color and quality all through was an improvement over any previous show.

The following is a list of the awards in the box and barrel classes:

BARRELS, 5, Baldwin, color: 1, W. L. Hamilton, Collingwood, Ont.; 2, Harry Scott, Collingwood; 3,

C. R. Terry, Clarkson. Ben Davis: 1, Hamilton; 2, G. H. Martyn & Son, Port Hope, Ont. Golden Russet: 1, A. D. Heard, Oakville; 2, Hamilton. Greening: 1, Hamilton; 2, Terry. Spy: 1, Hamilton; 2, Heward; 3, M. Kneale, Eastwood. Stark: 1, Martyn & Son. Box, Baldwin: 1, Hamilton; 2, H. C. Breckon, Bronte; 3, Heward. Blenheim: 1, F. J. Watson, Port Credit. Cranberry: 1, Leslie Smith, Wellington. Fameuse: 1, Hamilton; 2, Scott; 3, Norfolk F. G. A., Simcoe. Greening: 1, Hamilton; 2, Scott; 3, Watson. King: 1, Hamilton; 2, Terry; 3, Norfolk F. G. A. McIntosh: 1, Hamilton; 2, Scott; 3, Watson. Ribston: 1, Hamilton; 2, Scott. Spy: 1, Hamilton; 2, J. J. Gilbertson, Simcoe; 3, Breckon. Tolman: 1, Terry; 2, Hamilton; 3, Watson. Scarlet Pippin: 1, Norfolk F. G. A.; 2, Hamilton; 3, Watson. Scarlet Pippin: 1, Norfolk F. G. A. A. O. V.: 1, Gilbertson; 2, Watson. BOXES, 5.—Fameuse: 1, Watson; 2, Lynndale Farms; 3, Scott. McIntosh: 1, Hamilton; 2, Scott. BOXES, 10.—Baldwin: 1, Breckon; 2, Hamilton; 3, Lynndale Farms. Greening: 1, Hamilton; 2, Scott; 3, Watson. King: 1, F. C. Jones, Beamsville; 2, Hamilton. Spy: 1, Hamilton; 2, Norfolk F. G. A.; 3, Jones. BOXES, 20.—Baldwin: 1, Norfolk F. G. A.; 2, Hamilton. Greenings: 1, Hamilton; 2, Scott. Spies: 1, Norfolk F. G. A.; 2, Watson. BOXES, 50.—Baldwin: 1, Norfolk F. G. A. Spy: 1, Norfolk F. G. A. BOXES, 100.—2 varieties: 1, Lynndale Farms; 2, Hamilton. BOXES, 300.—3 varieties: 1, Lynndale Farms. BEST PACKED BOX OF APPLES: 1, Breckon; 2, H. W. Neff, Simcoe; 3, Norfolk F. G. A. SWEEPSTAKES BOX: W. L. Hamilton, (Spy).

Ontario Fruit Growers Association Meet.

The annual convention of the Ontario Fruit Growers Association took place also last week, on Wednesday, Thursday and Friday. It was held on the Canadian National Exhibition grounds, in the basement of the Government Building, and just across from the Transportation Building where the Horticultural Exhibition was housed. The attendance was good for this time of year, and considering that members have become more or less accustomed during the last five years to meeting in January or February. The Association has become much depleted in numbers due to the usual current causes and now numbers about 600, of which number about 200 are from the Norfolk district.

President Jas. E. Johnson, Simcoe, opened the convention Wednesday afternoon with the presidential address, in which he said in part: "I sincerely hope that the Department of Agriculture will extend their work, and now is the opportune time for them to do so, before it is too late, as apple production is on the decline in Ontario. I also think that the Department of Agriculture can do great work in having experienced fruit-men throughout Ontario to be known as instructors in the growing and packing of fruit. The Dominion Government does something in this line, at present, when the Fruit Inspectors are examining fruit for shipment, but I believe it is up to the Province of Ontario to carry on the line of educational fruit-growing for its own people."

"I am more in favor of boxing apples than ever before, as apples wrapped in paper will keep far better than when packed in barrels. In the apple season we are almost sure to have weather conditions too warm for the packing of the apples in barrels. When the weather is warm and apples are packed in large packages heat is generated which results in the decaying of the fruit. Next year at the Horticultural Exhibition it would please me to see a demonstration of the packing of apples with an up-to-date sizer."

"We have many soldiers taking up fruit growing, and we should do all we possible can to aid them and keep them contented on fruit farms. We must get a back-to-the-land movement which we cannot expect under existing conditions. Before this can be accomplished we have got to have a co-operation of all classes whether working in the field, factory, or office and make known to each other our exact position unselfishly."

"During the four anxious years of the war we were all wishing for the end of the struggle to come, thinking the conditions would then be much better, but we find ourselves to-day in a world of ugly temper and misunderstanding. We should take an interest in the other fellow's problems. The greatest difficulty we face to-day is that of understanding. We have had too much talk about masses and classes and too little recognition of the truth, that, in the main, all men are very much alike. If we but had a better opinion of the others' ideas it would make for greater contentment, and this would result in greater progress."

COMMERCIAL VARIETIES OF APPLES.

One of the main features of the first afternoon was a paper prepared by W. T. Macoun,

Dominion Horticulturist, Ottawa, dealing with the commercial varieties of apples of Canada, and the United States. In Mr. Macoun's absence his assistant, M. B. Davis, read the paper which showed evidence of great care and preparation. We can now only quote from the introductory paragraphs, but in subsequent issues we intend reproducing this paper in full:

"In the vast territory covered by Canada and the United States, where the climates range from Arctic to Tropical, there is a great diversity of vegetation and a great variety of edible fruits, and most important of all the fruits is the apple. It is grown in every province of Canada, and in every state of the United States, and, while in Canada the number of trees grown in the coldest parts of the coldest provinces is very limited, so in the United States the number of trees which are grown in the hottest parts of the hottest states is also limited."

"The apple succeeds best in a moderately warm or a moderately cool climate, but some varieties will withstand great cold and others will succeed in great heat. The hardest varieties of the colder parts are those which withstand extreme cold, the hardest varieties of the warmest parts are those which withstand extreme heat. In some parts of Canada and the United States the growing season is so short that only those varieties of apples requiring the shortest season in which the apple matures fruit can be successfully raised. Again other varieties require such a long season of warm weather that it is only in the warmest districts where apples are grown that they reach full development. Crispin Beauty requires but a short season, without much warm weather, to ripen, whereas the Winesap and Newtown Pippin will not mature thoroughly except in the warmest parts of Canada as even if the season is a long one unless there is much high temperature to properly mature these fruits they cannot be very successfully grown. Thus, just as the banana and orange require higher temperatures than the apple if they are to mature, so different varieties of apples require different amounts of heat to bring them to full maturity. Thus also some varieties do well in a short relatively cool season, others do best in a long, relatively cool season. Some varieties which only require a short season where the summers are hot do not reach their fullest development where the summer is cooler."

"It has been found that there are about ninety varieties being recommended by growers in different parts of Canada and the United States, although, if all the varieties advertised by nurserymen were included, there would be considerably more than this, and there are some doubtful ones which we have not included that might perhaps be. We have divided the varieties according to their season into 13 summer, 18 autumn, 21 early winter and 38 winter sorts. Some of the summer apples are autumn sorts in the coldest districts; the autumn varieties, early winter; and the early winter, winter; but they have been classified according to how they keep in Ontario or where a certain variety is specially noted."

VARIETIES FOR QUEBEC.

Professor T. G. Bunting, Macdonald College, Ste Anne de Belleuve, Quebec, gave a very interesting and practical talk on some features of the work in the college orchard. The following extract from his address bears special reference to varieties:

"The orchards at Macdonald College in the Province of Quebec are located twenty-one miles west of the city of Montreal, and comprise thirty acres, consisting of twenty-four and a half acres of young apple trees, twelve and thirteen years of age, an acre and a half of American plums, some cherries and pear trees, and some older apple trees from twenty-five to thirty years. The standard apple trees have been planted 33 feet by 33 feet with fillers the one way consisting of early-bearing apple trees, sour cherry and plum trees, mostly of the Americana group."

"Over 100 varieties of apples, including a number of Mr. Macoun's named seedlings, have been planted. Of this number of varieties 12 are represented by forty or more trees of each—12 by 20 or more trees and the balance by from 1 to 4 trees. The soil is a fertile clay loam overlying a rather stiff clay, and underneath this at varying depths is rock. The land has been fairly well drained with tile, and for the most part dries up in the spring much earlier than adjoining undrained land."

"In handling an orchard of so many varieties many difficulties have been experienced in marketing the fruit. The market requirements are for a large output of uniform fruit of known value. Good fruit of known value will sell readily, but unknown varieties of good quality are more difficult to sell, and will not bring such good prices, while little known varieties of mediocre merit should be discarded from the commercial plantings. The local adaptability of the district to different fruits,

If he has a month or begin laying he will be just about what they

up carefully, where possible pullets should going to stay for the blish economy to put strong and vigorous, selections from time gradually eliminating the flock goes into strongest and most are is not much use winter-laying flock, that are mature and ces are best.

contain somewhere d laying hens, since cally on the average deal more attention the whole flock can, one pen if necessary, production of eggs flocks of twenty-five each. Where labor, number per pen will

is concerned, the to face is to imitate ions in the winter. nvironment of the o their best without becoming weakened quarters. Feeding wintertime hens will keep them warm summertime. Feed- the breed, but in an a summer feed, tain the body heat production. Hot very cold weather es warm, and have ed effect upon the closely confined or winter must be succulent feed, as ration in which The feed should demand for heat g production. It the birds in good thin.

er the hen that is number of eggs. er; she belongs to er; by the continual she gets off the t again at night. ying herself from storing up food Exercise, there- densed with, and ake it by making breeds are easier ey will be more ir own volition. ore sluggish by r their feed to a Better results pt in light, airy deep litters for out for exercise

ment of poultry flock, sanitation absolutely neces- use dirt of any in and disease. uently, at least when the flock out three inches will gradually dded from time material for the straw because anything else, becoming crop- poultry house. e it will not be ided the house

give here the rap-nesting for plant to occupy sold 6 of them October, 2,034 of eggs is over \$30, leaving a weeks to go to pullets are No. 77, 218 eggs. gh I started y the highest was only 123. with the trap 's Egg-Layirg at Ottawa. COLDHAM.

as well as market requirements, should be carefully studied in determining the varieties that should be planted. Too many varieties is a mistake, except probably for local markets; however, it is well to have five or six varieties which will aid in distributing the work of picking, packing and marketing over a longer season, and also aid in ensuring some crop in off-seasons for some varieties. The McIntosh and Fameuse are our two leading varieties, and are similar in many respects, but the marked differences in other respects should be noted and studied by the intending planter. The McIntosh will fall readily as it nears maturity, and in cases of high wind many apples may go to the ground. The Fameuse hangs to the trees well, and may be left until after the McIntosh are harvested.

"The Fameuse has been very seriously injured as the result of the winter of 1917-18, and thousands of old and young trees have been killed out throughout the province. But we are not discouraged, for the Fameuse has stood the test and has been the leading variety for a hundred years.

"Our best and most profitable varieties are Duchess, Wealthy, Alexander, McIntosh and Fameuse (Snow). We can grow these to perfection and have an unlimited market for them. Of winter apples we have so few of sufficient hardiness and merit that it is questionable whether any of them should be recommended for extensive commercial plantings in Quebec."

COMBINATIONS OF FRUIT AND VEGETABLES.

"Fruit and Vegetable Combinations on Sanded Acreages" was the subject of a practical talk by E. J. Atkin, Leamington. The following quotation is here-with given covering the more essential points:

"Few native Canadians have any conception of the possibilities of an acre of soil. The principle of expansion is as old as the law of self-defence. Individuals, as well as nations, have grasped for more for all time. In our greed for grain we ignore the small and seemingly insignificant things of nature, and rush wildly on without chart or compass. Unless our system of agriculture is radically changed within the next fifty years, coming generations will have a food situation to solve that is now perplexing India.

"The farmers of to-day, and more particularly the fruit and vegetable growers, have learned several valuable lessons within the past few years. The first and foremost of these perhaps is that intensive farming and rich soil is the only line of horticulture that pays. Secondly that crop rotation must be followed to produce successfully, year after year, a large, healthy and profitable crop.

"As to the first point, it is my intention to mention it only briefly. In the Leamington section, where the scarcity and high cost of manure makes it almost prohibitive, we must resort to other means. True, we do use a small amount of farm-yard manure, particularly where we have to follow extremely intensive forms of culture, as in the green-houses and on our irrigation plots. In the latter we give an annual application of about twenty tons per acre, which is supplemented with commercial fertilizers. Where possible a cover crop is also sown in the fall, which is plowed down in the spring. On the remainder of the land a fall cover crop is generally grown; this is plowed down in the spring and supplemented with commercial fertilizers.

"Crop rotation is the point that requires perhaps the greater consideration, and the proper rotation to a great extent controls the loss from insect pests and plant diseases. While the majority of those before me, I presume, are fruit growers, a large number engage in vegetable growing as well. These two work well together in a good many localities and on the proper soil, especially one that is sandy in nature, they give us a combination that is both profitable and easily handled. While vegetable growing is the principle one in our district, a large number of the growers have found that a combination of the two work well together, especially the smaller fruits, such as strawberries, currants and even peaches, to a very great extent. As a sandy soil is not as well adapted to cherries, plums and pears, these are very little grown and are not nearly as profitable as the afore-mentioned. The peach trees are planted out early in the spring on a soil that has been previously well prepared. Early tomatoes are then planted in the orchard. The cultivation necessary for them gives the trees a good start at no extra expense. In the fall the vines are pulled up and piled around the roots, which gives protection and also serves as a catch to the snow. The second year the orchard is planted with melons. These grow well, and the only preparation necessary is digging some well-rotted manure in the hills. The third year often no crop is planted if the trees have made a normal growth, but if the space is limited and the trees permit it, two rows of tomatoes are often planted the wide way. By the fourth year the trees will commence to bear, and further inter-cropping would be unwise.

"Under the irrigation a different rotation is followed. Cabbage are planted in the spring, usually about April 1 to 10. These will all be harvested by the first week of July. The ground is then given a light top dressing of manure, and about Aug. 1 to 15 is planted to strawberries. These produce a very good crop the next year. After cropping they are cultivated, cleaned out and later on mulched and left for a full crop the coming year. When picking is over they are plowed down and the ground planted to onions, egg-plant or peppers. In this rotation five profitable crops are grown in the four years, while under ordinary means of culture only three would be produced."

GOVERNMENT GRADES FOR PEACHES.

The desirability of Government grades for peaches was discussed by F. A. J. Sheppard, St. Catharines, and Hamilton Fleming, Grimsby. Both are vitally interested in this branch of the industry, and their remarks on this contentious question are worth noting. Mr. Fleming condensed his opinions into the following recommendations:

"I am of the opinion that there should not only be an established grade, but that the minimum weight of the peaches should be marked on the package. This is a large and difficult subject, and should be gone into very carefully by all parties interested. I have spent much time on the question and, for the sake of discussion, and in order to obtain the views of my fellow growers, I will only mention one grade, and would suggest that the established grade of a No. 1 peach be as follows:

"No person shall sell or offer for sale any peaches represented to be of No. 1 quality, unless such peaches are sound, of one variety and of good color for the variety, free from bruises and other defects. The minimum diameter of the peaches shall be two inches. The grade and minimum weight of the package shall be distinctly marked on the package, also the packer's name and address. Ten per cent. of the peaches contained in the package may be below the requirements of this grade." While I have with me the Government standard eleven-quart basket, which will carry three packed layers of No. 1 peaches as above described, I have made no reference to the pack, as the probabilities are that the new Government standard bushel basket will be more generally used in the future, and at the present time the heaped leno basket appears to be a legal package."

Mr. Sheppard was prepared to agree that Government grades were desirable, but thought they were impracticable at the present time in the St. Catharines district, at least, because of the impossibility of obtaining labor. Arthur Craise, of St. Catharines, also agreed with Mr. Sheppard, and it was stated that labor was so scarce this year in the Niagara District that when the rush of the peach crop was on, peaches were simply picked into baskets and marketed orchard run, because of the impossibility of securing sufficient labor to do the grading. At a later session of the Convention, it was decided that the directors should appoint a small committee, who would consider the advisability of establishing Government grades for peaches and report at the next annual convention.

GOVERNMENT DEMONSTRATION ORCHARDS.

W. F. Kydd, who is in charge of the Government demonstration orchards, discussed the methods of handling these orchards, and some of the results that have been secured. The Government now has five leased orchards, consisting of 1,350 trees all told, and located in the Counties of Lambton, Norfolk, Simcoe, Ontario and Prince Edward. These orchards are for demonstration and experimental purposes, and both Mr. Kydd and Mr. Hodgetts stated that they were somewhat disappointed as to the comparatively small number of people who have taken advantage of the good work being carried on at these orchards. Mr. Kydd said that all kinds of sprays have been tested out and several different cultural methods. He was convinced that cultivation is necessary for ninety-nine out of every hundred orchards. If he were operating an orchard of his own, he would not plow within four or five feet of the trees, except in the spring when all of the ground in the orchard might be cultivated for six or eight weeks. At the Whitby orchard great difficulty was experienced in controlling scab, because of a wind-break surrounding the orchard. The speaker said that moisture remains on the trees all forenoon, providing the proper conditions for the growth of the disease. He also said that this orchard had suffered more from winter injury than any other orchard he knew of, except one. At Collingwood, much less insect trouble has been experienced than at any other place. The Theford orchard, in Lambton County, consists of 230 trees, and was leased four years ago for \$150 per year. It had never been pruned or sprayed for twelve years, but for the last four years it has cleared for the Department \$500 per year. At Wellington, in Prince Edward County, where an orchard has been leased for six years, it was necessary to deal with trees, the tops of which were badly cankered. About 450 barrels is the crop this year from 250 trees, but the tops have had to be practically renewed, so that no good crops have heretofore been secured. The Norfolk County orchard consists of 330 trees, and the first year it was taken over it merely paid expenses. This year there is a splendid crop of 1,000 barrels that will grade ninety-six per cent. No. 1. Mr. Kydd favored the use of spray guns, but said that injury very frequently occurred from this type of equipment because those handling them did not keep far enough away from the foliage. He thought it was necessary to keep at least four feet away. The Ontario apple industry, said the speaker, was going backwards, and, notwithstanding that old orchards will soon be gone, the young trees that have been planted out are not being cared for. Imported apples are filling our markets. He thought that the demonstration orchards had done some good, and said that the five leased orchards have shown a profit of \$2,500 to \$3,000 per annum altogether.

SOME ORCHARD PROBLEMS.

One of the best and most practical addresses of the convention was delivered by Professor F. C. Sears, Professor of Pomology, Massachusetts Agricultural College, Amherst, Mass. Professor Sears was formerly engaged for some years in horticultural work in Nova Scotia, and, having spent ten years of his life in Canada, is well acquainted with Canadian conditions. He took

as his subject "Some Orchard Problems," and referred to those problems which he, as a practical fruit grower, had had to solve. He stated that he operated, along with Professor F. A. Waugh, a 450-acre farm, of which 120 acres is planted to apples, and, while it might seem odd that a man could successfully hold down two jobs, he sometimes thought that the men who teach farming in the future must also have and operate a farm. Too many teachers now, he said, would starve to death on a farm.

He first referred to the question of fertilizers, stating that this was one of the most difficult problems to settle, and one which fruit growers have had the least help on from experiment stations. No two experiment stations will agree, and amid conflicting results growers are inclined to neglect fertilizing. Twenty-five years ago the State of Massachusetts began experiments to decide the value of potash as a fertilizer. They did not decide the question, but the experiments did show that no matter what fertilizer was used it was better than nothing. On his own farm the soil was rather light, and it was necessary to fertilize very heavily. He illustrated his methods by a Wealthy orchard set ten years ago. The trees were comparatively small, but blossomed very heavily this year. On account of the heavy bloom it was thought necessary to fertilize heavily in order to get size. As a result, 500 pounds of amophos, a combination of phosphoric acid and nitrogen; 300 pounds of nitrate of soda, and 200 pounds of flue dust (containing potash) were applied in three applications. The first application was put on just after the blossom, the second one the first week in July, and the third one toward the last of July. The result was a tremendous crop of large and highly-colored fruit valued at \$500 per acre. The fertilizer cost about \$60 per acre, and the land originally cost \$25 per acre.

LABOR AN IMPORTANT PROBLEM.

Everything that is produced on the place is sold on the place. Good local markets that can be reached on first-class highways are nearby, and if it is necessary to deliver fruit, the farm is paid for the delivery. One of the troubles on light land, said Professor Sears, is the question of humus. The only block of land that would cause him worry would be one that would not grow weeds. They have tried growing barley and millet, and have put on from one to two tons per acre of ground limestone to correct acidity in the soil. The cost to them is about \$6 per ton delivered at the farm. Last year they spent \$750 for fertilizers, and in 1920 plan to spend \$2,000. They are now seriously considering suitable methods of live-stock farming for the purpose of securing barnyard manure. A number of hogs are always kept, but it was possible that they would decide to fatten a barnful of Western cattle every winter on roughage grown on the remainder of the farm. Professor Sears believed a tractor necessary for any extended acreage, and had narrowed his choice of the different makes to two, both of which are common in Ontario. He had found a small truck for delivery purposes exceedingly valuable, and another year was planning to purchase a lighter truck that would haul fruit from the orchard to the packing house.

Labor, he thought, had caused them more trouble and serious consideration than any other problems of orchard management. The tractor will dispense with one teamster, but still the labor problem is very serious. They have to depend on Polish labor, and have four farm houses so that they can get married men. They have, however, but little trouble in keeping the men because they treat them well. The houses are repaired or decorated whenever they need it, and without the men asking for it. Good wages are paid, amounting to \$2.75 per day, in addition to free house, feed for a cow, and all the land they want for a garden. The men are never docked for time off when sick, but every man is expected to do a full ten-hours' work, and is always made responsible for a certain part of the work in which he is engaged.

CONSUMERS WANT RED APPLES.

About five varieties constitute Professor Sears' choice for a commercial plantation. These are all red, and are as follows in order of season: Duchess of Oldenburg, Wealthy, McIntosh, Baldwin and Wagner. Green varieties do not sell to the consumer, and the speaker instanced a comparison between McIntosh and Palmer Greening, both varieties having exceedingly fine quality. The McIntosh, which is red, will sell for as high this year as \$15.75 per barrel, a price that can be obtained easier than \$4.00 can be secured for Palmer Greening. Delicious is also being considered as a high-class dessert apple, following McIntosh.

The trees that come untrue to name from the nursery, said the speaker, prove a serious handicap to the fruit grower. Professor Sears has had 650 supposedly McIntosh trees turn out to be Wolfe River; 200 Gravensteins finally developed into Scott's Winter, until now they have narrowed down to securing trees by top-budding in the nursery, or whip-grafting. At the present time McIntosh and Wealthy are worth \$90 per hundred, and other varieties \$75. Nursery stock is very difficult to get.

There is no special time for pruning; it is more important that a good man prune a tree than that the pruning be done in March. Young trees are pruned every year, but as moderately as possible. Fall pruning is practiced because it helps to get the work done. If the land was rich enough, the speaker said he would not cultivate at all, but as it is, cultivation is stopped the first week in July in Massachusetts, and the land put under a cover crop. The bulk of the trees are headed back to three inches. Rhode Island Greenings could stand to be three and a half to four feet; McIntosh thirty inches, and Sutton six inches.

problems," and referred to a practical fruit grower, that he operated, along a 50-acre farm, of which he said, while it might seem to hold down two jobs, men who teach farming to operate a farm. Too many would starve to death

of fertilizers, stating that difficult problems to solve have had the least result. No two experiments of fertilizing results growers began. Twenty-five years ago they began experiments to fertilize. They did experiments did show as used it was better in the soil was rather to fertilize very heavily. Wealthy orchard set comparatively small year. On account of necessary to fertilize a result, 500 pounds phosphoric acid and soda, and 200 pounds were applied in three on was put on just the first week in July, of July. The result of highly-colored fruit fertilizer cost about \$60 per acre. Last \$25 per acre.

PROBLEM. The place is sold on and can be reached on and if it is necessary for the delivery. One Professor Sears, is a block of land that one that would not growing barley and to two tons per acre in the soil. The delivered at the farm. Fertilizers, and in 1920 seriously consider farming for the purchase. A number of hogs were that they would cattle every winter under of the farm. necessary for any and his choice of the which are common in truck for delivery another year was truck that would haul house.

them more trouble other problems of will dispense with lems is very serious. poor, and have four married men. They keeping the men houses are repaired, and without the e paid, amounting e house, feed for a or a garden. The men sick, but every ours' work, and is n part of the work

APPLES. Professor Sears' These are all red, Duchess of Olden-in and Wagner. consumer, and the een McIntosh and ng exceedingly fine d, will sell for as price that can be eured for Palmer considered as a McIntosh. from the nursery, dicap to the fruit 650 supposedly River; 200 Graven-Winter, until now ng trees by top-grafting. At the are worth \$90 per Nursery stock is

ning; it is more ree than that the trees are pruned le. Fall plowing e work done. If er said he would vation is stopped ts, and the land of the trees are Island Greenings ur feet; McIntosh Permanent trees

on good land he thought should not be less than fifty feet apart.

HOW AND WHEN TO SPRAY APPLES.

W. A. Ross, Horticultural Experiment Station, Vineland, reported on some spraying experiments carried on in Norfolk County, comparing the Ontario spray schedule with the Nova Scotia spray calendar; also on three inconclusive experiments with dusting. Mr. Ross favored very much the Thompson Bordeaux formula (3 lbs. bluestone, 10 lbs. hydrated lime, and 40 gallons of water). The bluestone is dissolved over night and is then strained into the spray tank. About two-thirds of a tankful of water is then added, and after starting the agitator the hydrated lime is then poured in, after which the remainder of the water is added and the mixture is complete. At Vineland, lime sulphur showed some spray injury, but there was none from the Bordeaux mixture. On Duchess, the lime-sulphur foliage was small and curled, while the Bordeaux foliage was of much better appearance. At Simcoe there was little difference in the condition of foliage with either Spys or Baldwins; if there was any difference it was in favor of Bordeaux. The codling moth was controlled equally well. Color on fruit sprayed with lime-sulphur is much brighter and snappier than with Bordeaux mixture. The ideal spray program, which was concurred in by Mr. Caesar, was as follows, for apples: First spray, before the buds burst, with lime-sulphur 1 to 7 where San Jose scale is present; 1 to 9 for oyster shell and blister mite, adding Black-leaf 40 for aphids. Second spray (in the pink), Bordeaux mixture, Thompson formula, (3-10-40), and one pound of powdered arsenate of lead or 2½ pounds of arsenate of lead paste to 40 gallons of the mixture. The third spray, when the blossom has fallen, lime-sulphur 1 to 40 and arsenate of lead. The fourth spray, lime-sulphur.

Mr. Caesar stated that he was trying to recommend as few sprays as possible, and that three were usually sufficient. He stated that the larvæ of the codling moth do not enter the fruit for three weeks after the bloom has fallen, and that by putting poison in the fourth spray it was possible to reduce the seriousness of this pest by from ten to thirty per cent. The eggs are laid for the second brood during the first week in August, but a big factor in controlling this brood is the weather.

W. P. Macdonald, Agricultural Representative for Lambton County, discussed the fruit situation in his County, and stated that the fruit industry in Lambton is a fair-sized one and worthy of development, but still in its infancy. The climate is modified by Lake Huron and the general north-westerly slope of the land. A ridge of sandy and gravelly loam runs through the County, upon which it is possible to grow fruit of excellent quality and type. The peach industry has suffered severely, first as a result of the shortage of labor brought about by the war; second, as a result of the peach-leaf curl in 1916 and 1917, and third as a result of the severe winter of 1917-18. Small fruits are grown at Thedford and Arkona, where some labor can be secured, but there are few specialized fruit growers in the county, all the fruit being grown in conjunction with mixed farming. Early maturity, marketing facilities, suitable soil, with resulting quality and color, were said to be the notable features of Lambton fruit growing. The general farm orchard is dead or dying.

SUCCESSFUL STRAWBERRY CULTURE.

P. H. Wismer, Jordan Station, one of the most successful growers of small fruits in Ontario, spoke on "Intensive Strawberry Culture," and rather than leave out many good points we are printing his address in full next week.

A great deal of interesting discussion was created by Mr. Wismer's address, but unfortunately we have not space to give it here.

SMALL HOLDINGS FOR RETURNED SOLDIERS.

"Small Holdings for Profit," was very fully discussed by F. C. Keeler, Brockville, who grows thirty varieties of fruits and vegetables on a small acreage and retails all of his produce to the consumer. Fourteen

years ago he purchased ten acres of land for \$1,300, and has since refused \$10,000 for it. He favors apple growing in small holdings, and considers the apple a very economical crop to produce. Many farmers, said the speaker, have much too large an investment for their incomes, and while he has himself succumbed to the natural desire of every farmer for more land he believes strongly in the possibilities of small holdings for returned soldiers. Mr. Keeler aims to produce fancy stuff that will bring the highest price. This he does not believe can be done on a 100-acre farm. He employs three men, and believes the labor problem can be made much easier of solution by treating employees considerately. He sees no good, however, in an eight-hour day for farmers, and claims that eight hours before dinner and eight hours after dinner is about the only practicable method still. A good share of his fruit is disposed of to consumers who pick it themselves at a suitable reduction, and Mr. Keeler believes that one of the next problems in fruit growing is to institute some kind of a cafeteria system whereby the consumer may come to the farm if he desires and get what he wants. Asparagus is the first crop harvested, followed by raspberries, peas, carrots, beets, potatoes, currants, and other crops, winding up with apples and celery. He is growing celery of good quality at a cost of less than one cent per head. He prefers strawberries and raspberries to asparagus, and specializes in the Wm. Belt strawberry because of its large size and fancy appearance. The yield of this variety has been raised by careful selection, cultivation and fertilization from 4,000 baskets per acre to 8,000 since 1908. Raspberries were all sold for 35 cents per box this year. In 1918 he secured \$1,200 returns from three-quarters of an acre of strawberries. Since then he has been able to sell strawberry plants for twice as much as before.

PROMISING VARIETIES OF SMALL FRUITS.

M. B. Davis, Assistant in Pomology, Central Experimental Farm, Ottawa, discussed some new but not well-known varieties of small fruits that have been satisfactorily tested for some years at Ottawa. The speaker first referred to the Portia strawberry originated at Ottawa. Attention was also directed to three varieties of raspberries, Newman No. 23, Brighton and Count, while three varieties of grapes, Lincoln, Mary and Wilkin's Seedling, as well as the Kerry black currant, were also mentioned. Brief notes on these new varieties will be given later.

H. G. Bell, Director Soil and Crop Improvement Bureau, Canadian Fertilizer Association, discussed the subject of "Fertilizers for the Fruit Grower" somewhat briefly, owing to lack of time, but summing up his remarks Mr. Bell said:

"It seems to me that the most profitable fertilizing practice for your orchard can be determined to quite an extent by a study of the trees themselves. If the leafage is sparse and the twig growth is indifferent, there is clear indication of the lack of nitrogen. If on the other hand, twig growth is extensive and a great deal of leafage and a slow ripening of the crop, there is pretty clear indication of the lack of phosphoric acid. Undersized apples, insipid in taste, and fruit and trees susceptible to disease indicate a marked lack of potash. As a general rule you will find sandy or gravelly soil short of all three of the plant food constituents, and orchards on such soils will naturally require more abundant feeding than were they found on richer loam soils.

"Fertilizers will not take the place of drainage, nor will they do the job of spraying or pruning or proper soil tillage, nor will fertilizers take poor varieties and produce good results from them."

The Niagara Grape Growers' Association, which was organized this year, was the subject of a paper read by Jas. Livingston, Grimsby, who recounted the history of grape growing since 1907, and pointed out the inconsistencies of grape prices in the intervening years from the standpoint of the grower. The speaker pointed out the need for co-operation along lines that will ensure a parity of prices in different parts of the grape-growing district. Arthur Craise, St. Catharines,

discussed the relation between the grower and the canning factories, and pointed out that many unfair restrictions were now placed upon the grower which should be removed. A small committee was appointed to take up this matter with the factories.

RESOLUTIONS.

A number of resolutions were passed at the final session on Friday, which are summarized herewith. It was carried unanimously that the Provincial and Dominion Governments be asked to take some steps that will retain in Canada the services of the best men, many of whom are finding more lucrative openings outside of the country after having got their training here. It was also decided that the Directors should investigate the feasibility of holding a National Apple Show in Canada in 1920 or as soon as possible. Another resolution asked that the Dominion Government call a fifth Dominion conference of fruit growers, and if a National Apple Show be held, that the conference be held at the time of the show. A resolution was also passed asking that the Women's Division of the Government Employment Bureau be continued, as it was felt that women and girls would be seriously needed for fruit harvesting in 1920. The convention concurred in a resolution prepared by a special committee of the Florist's Association that a National Council of Horticulture is desirable in Canada; and agreed to appoint representatives to such a council. The Board of Directors was empowered to reconsider the method of electing directors, and to report at the next annual convention on the question of electing directors according to districts furnishing the greatest memberships.

DIRECTORS.

The election of Directors resulted as follows: DISTRICT 1: Renfrew, Lanark, Carleton, Russell and Prescott, W. T. Macoun, C.E.F., Ottawa; DISTRICT 2: Glengarry, Stormont, Dundas, Grenville, Leeds and Frontenac, J. C. Neeler; DISTRICT 3: Lennox and Addington, Hastings and Prince Edward, R. W. Ireland, Wellington; DISTRICT 4: Northumberland and Durham, Peterboro and Victoria, H. Sirett, Brighton; DISTRICT 5: Ontario and York, W. J. Bragg, Bowmanville; DISTRICT 6: Peel and Halton, C. R. Terry, Clarkson; DISTRICT 7: Wentworth, David Allan, Grimsby; DISTRICT 8: Lincoln, A. Craise, St. Catharines; DISTRICT 9: Elgin, Norfolk, Haldimand and Welland, Jas. E. Johnson, Simcoe; DISTRICT 10: Kent, Essex and Lambton, Jas. Johnson, Forest; DISTRICT 11: Middlesex, Huron and Bruce, H. K. Revell, Goderich; DISTRICT 12: Brant, Oxford, Perth, Waterloo, Wellington and Dufferin, J. F. Elliott, Oxford Centre; DISTRICT 13: Grey, Simcoe, Muskoka, Parry Sound, Nipissing, Algoma and Manitoulin, W. L. Hamilton, Collingwood; O. A. C., Professor J. W. Crow; Horticultural Experiment Station, Vineland, E. F. Palmer.

FARM BULLETIN.

The Farmer-Labor Cabinet.

All guessing in regard to the personnel of the new Ontario Cabinet came to an end at 11 a.m. on Friday of last week when Mr. Drury and his chosen lieutenants were sworn into office at the Government House, Toronto. Subsequent to the ceremony, the new Ministers betook themselves to their offices in the Parliament Buildings, where they received their first experience as Ministers of the Crown. The composition of the new Government was first made known on Thursday, after W. F. Nickle, of Kingston, had declined the Attorney Generalship, on account of personal reasons, and W. E. Raney, K. C., Toronto, had accepted. The Cabinet was then complete and as set forth elsewhere in these columns.

Manning W. Doherty, who presides over the Department of Agriculture, was born in 1875 at the family homestead, Clontarf Farm, Peel County. Clontarf Farm has been in the family name for four generations,



W. E. Raney, K.C.
Attorney-General in the new Ontario Government.



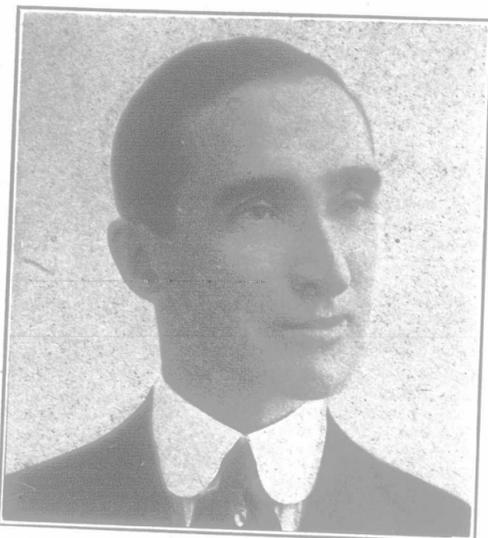
Harry Mills
Minister of Mines.



Walter Rollo
Minister of Labor and Health



H. C. Nixon, B.S.A.
Provincial Secretary.



Manning W. Doherty, M.A., B.S.A.
Minister of Agriculture.



F. C. Biggs
Minister of Public Works.

having been purchased from the Crown in 1815. After preliminary training at the Collegiate Institute and Upper Canada College, Mr. Doherty entered the O. A. C. in 1892, and graduated in 1895. His Master's Degree in agriculture was obtained at Cornell University, and he received his appointment as Associate Professor of Natural Science at the O. A. C. in 1898. While there he organized and conducted the first course in public speaking; incidentally, Premier Drury was a member of that class. Connections with the College were severed in 1902, and from then until 1912 Mr. Doherty was engaged in business. Since the latter date he had devoted himself to Clontarf Farm and its Clydesdales, Holsteins and Yorkshires. No other member of the Cabinet has as thorough a grasp of the work he has in hand as has the Minister of Agriculture. He has not had Legislature experience, that is true, but his technical training, as well as practical experience, combined with the knowledge gained of Ontario's rural needs through his work as a U. F. O. director, equip him admirably for the portfolio.

R. H. Grant, of Carleton, who is to be the new Minister of Education, is a university man as well as a farmer. His views, therefore, should be broad in educational matters. W. E. Raney, K. C., the new Attorney General, is a well-known Toronto lawyer. The public has got acquainted with him, largely through his activities in combatting race-track gambling and as solicitor for the Ontario Branch of the Dominion Temperance Alliance. The Provincial Treasurer, H. C. Nixon, is the youngest member of the Cabinet, a graduate of the O. A. C., and a successful farmer in North Brant. Peter Smith, the Provincial Treasurer, represents South Perth. He is fairly new in the ranks of the U. F. O., but is considered an able man. Before settling down finally on the farm, he was a school teacher. Beniah Bowman, from Manitoulin, who is to administer the Department of Lands and Forests, sat in the Legislature during the last session, being first elected at a by-election. He was originally a native of Waterloo County but has been farming at Gore Bay for some time. The portfolio of Mines must be established by an Act of Legislature. In the past it has been lined up with Lands and Forests; when finally separated, Harry Mills, of Fort William, will take charge. Mr. Mills is a locomotive engineer by trade. For seven years he has been member of the Board of Education at Fort William, three years of which time

he was Chairman of the Board. F. C. Biggs, Minister of Public Works, has had considerable experience in public service in his own county of Wentworth, where he has been twice elected Warden by acclamation. He has had training at the O. A. C. and operates a large farm. Walter Rollo, of Hamilton, who like Mr. Mills, represents Labor in the Cabinet is a broom-maker by trade and of Scottish ancestry; the Department of Health

while other members of the Cabinet have had university training. Owing to the fact that forty-five days must elapse from the time the Cabinet is sworn in before writs can be issued for by-elections, it is evident that the Legislature cannot convene until well on towards the first of February. In the meantime, the Cabinet will have time to prepare their program and policy for the future.

- The Personnel of the Cabinet.**
- Premier and President of Council—**E. C. Drury.**
 - Minister of Agriculture—**Manning W. Doherty.**
 - Minister of Education—**R. H. Grant.**
 - Attorney General—**W. E. Raney, K.C.**
 - Provincial Secretary—**H. C. Nixon.**
 - Provincial Treasurer—**Peter Smith.**
 - Minister of Lands and Forests—**Beniah Bowman.**
 - Minister of Mines—**Harry Mills.**
 - Minister of Public Works—**F. C. Biggs.**
 - Minister of Health and Labor—**Walter Rollo.**
 - Minister Without Portfolio—**Lt.-Col. D. Carmichael, M.C., D.S.O.**

and Labor will be his to administer. The Minister without Portfolio, Lieut.-Col. D. Carmichael, M. C., D. S. O., saw four year's service at the front. In the Legislature he represents centre Grey. It is rumored that Lieut.-Col. Carmichael will be given a place on the Hydro Electric Power Commission. It is rather significant that the new Cabinet numbers four ex-students of the Ontario Agricultural College,

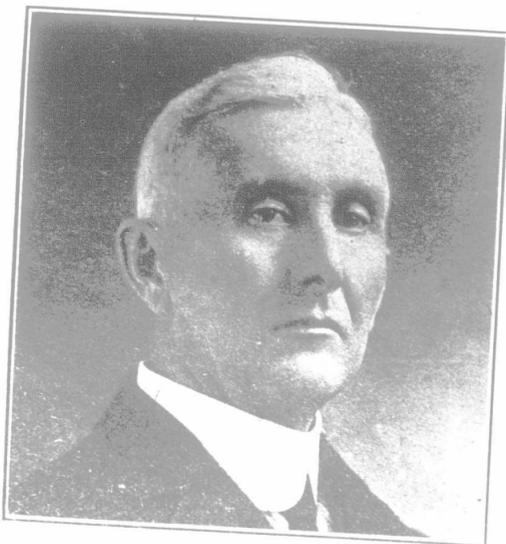
Victory Loan Went Over the Top.

It is very gratifying indeed to see the way Canadians responded to the appeal to buy Victory Bonds. The amount mentioned in the prospectus for this year's issue was \$300,000,000, but at time of writing there is every reason to believe that this amount will be more than doubled. Throughout the entire campaign a good deal of enthusiasm was in evidence, both in rural and urban centres. While the cities have piled up a big total, the rural districts have not fallen short. In fact, many of the counties have considerably surpassed their objective. All classes of people, from the newsboy to the millionaire manufacturer, have helped make this loan a crowning success. The larger cities have surpassed their objectives by many millions. At time of writing the race for first place is between Toronto and Montreal.

Sir William Hearst's Message.

When quitting office to make way for the new Government, Sir Wm. Hearst made the following statement: "In retiring from office I have nothing to add to what I have already said, save that I recognize heartily and gratefully the staunch support for good measures which the Government has received during its term of office from the great majority of the people of Ontario. "It has been an honor and a privilege to serve this great Province, particularly during the strenuous war period through which we have just passed, and the future prosperity and happiness of Ontario will be my dearest wish."

As a result of the recent strike of the bituminous coal miners in the United States, all bituminous coal in Ontario, either in transit or in storage, has been seized by the Provincial Fuel Administrator. A federal embargo has also been placed on all coal shipments from Canada.



R. H. Grant
Minister of Education.



Beniah Bowman
Minister of Lands and Forests.



Peter Smith
Provincial Treasurer.

NOVEMBER
TO
Week
Toronto
Montreal
Winnipeg
Calgary
Edmonton
Toronto
Montreal
Winnipeg
Calgary
Edmonton
Ma
Tor
The sl
has been
slowly m
prices sh
and pro
search o
well as p
stock th
low initia
advanta
by shipm
during t
heaviest
week we
sand he
a week
of good
apprecia
best kill
\$1 per h
made sub
cleared o
ended w
few heav
averagin
pounds,
load aver
pounds a
purchas
Several o
were mad
Steers av
hundred
loads run
pounds b
at \$12.5
quality i
\$11.75 to
to \$11.50
\$10.50.
hundred
at the h
moving f
from \$8
to \$7.75
shared i
sold fro
ones as h
at simila
bologna
market f
fairly act
ments we
feeders co
per hund
from \$10
from \$7
comparati
an easier
ported ab
the major
from \$15
\$12 and gr
The cros
ently past
thousand
lower than
Quotation
lamb selli
market, w
\$14. Cull
taken from
\$7 to \$9, w
The hog
selects so
25 cents
25 cents
Thursday
\$17.75, fe
f.o.b., but
\$17.50.

391 sheep, received during the corresponding period of 1918.

Winnipeg.

Receipts of stock were about even with those of the previous week, while through-billing amounted to thirty-four hundred and eighty-eight head. Of the through-billed stock, a large proportion was en route South and East to packing plants and the remainder on export to Belgium. Stockers sold from \$5.50 to \$8, and feeders of good quality from \$9 to \$10.25.

Buffalo.

Cattle.—Cattle market, with receipts considerably lighter than for former weeks, ruled generally a quarter to a half higher, all week at Buffalo, on best grades of shipping steers and the more desirable butchering cattle. Medium and less desirable butcher grades sold about steady, while on canner and cutter stuff, prices looked 15 to 25 cents lower. Bulls generally sold steady, a good, strong trade was had on stockers and feeders, and on the better grades of milk cows and springers prices ruled firm. There was a far better undertone to the trade than has been for some weeks past, and good clearances were had each day. Supply of Canadians totaled around 175 cars for the week and included the best shipping steers offered, top for these reaching \$16. Offerings for the week totaled 7,125 head, as against 8,325 for the previous week, and as compared with 10,975 head for the corresponding week a year ago. Quotations:

Shipping Steers, Natives.—Very choice heavy, \$16.50 to \$17; best heavy, over 1,300, \$15.50 to \$16; fair, over 1,300, \$13 to \$14; best, 1,200 to 1,300, \$15 to \$15.50; good, 1,200 to 1,300, \$14 to \$15; good, 1,100 to 1,200, \$13.50 to \$14.50; plain, \$11.50 to \$12.

Shipping Steers, Canadians.—Best heavy, \$14.50 to \$16; fair to good, \$13 to \$13.50; medium weight, \$12.50 to \$13; common and plain, \$11 to \$11.50.

Butchering Steers.—Yearlings, fair to prime, \$14 to \$15.50; choice heavy, \$13.50 to \$15.50; best handy, \$13.25 to \$14; fair to good, \$11 to \$12.50; light and common, \$9 to \$10.

Cows and Heifers.—Best heavy heifers, \$11 to \$11.50; good butcher heifers, \$10.50 to \$11; fair butchering heifers, \$9.25 to \$9.75; light, common, \$6 to \$7; very fancy fat cows, \$10.25 to \$10.75; best heavy fat cows, \$9.50 to \$10; medium, to good, \$7.50 to \$9; cutters, \$6 to \$6.50; canners, \$4 to \$5.

Bulls.—Best heavy, \$10.25 to \$10.50; good butchering, \$9.75 to \$10; sausage, \$7.25 to \$7.75; light bulls, \$6 to \$8.

Stockers and Feeders.—Best feeders, \$9.75 to \$10.25; common to fair, \$8 to \$9; best stockers, \$8 to \$8.50; fair to good, \$7.75 to \$8.25; common, \$6 to \$7.

Milkers and Springers.—Good to best, small lots, \$100 to \$150; in carloads, \$90 to \$100; medium to fair, small lots, \$80 to \$85; common, \$50 to \$55; in carloads, \$70 to \$75.

Hogs.—Market was erratic last week. Monday the general run of sales on all grades were made on a basis of \$15.50, with a few good hogs bringing \$15.60; Tuesday lights and pigs brought up to \$15.75, with better weight grades going at \$15.40 and \$15.50; Wednesday's market was fifteen cents to a quarter lower; Thursday lights and pigs brought up to \$15.50, while packers' grades landed mostly at \$14.75, and Friday the best grades moved at \$15.25, with lights and pigs going at \$15.50. Good roughs sold at \$12.50 and \$13, and stags ranged from \$11 down. Receipts for the past week were 30,700 head, as compared with 26,701 head for the week previous, and 44,700 head for the same week a year ago.

Sheep and Lambs.—Market was quite active all of last week, and a good clearance was had from day to day. Monday top lambs sold largely at \$14.25, with culls going from \$11.50 down, Tuesday's trade was steady, Wednesday's market was a quarter higher, and Thursday and Friday best lambs moved at \$14.75, with culls selling from \$12 down. Canadian lambs, of which there were only a few decks, sold a quarter to fifty cents under the best natives. Sheep remained steady all week. Wethers were quoted up to \$9.50, best ewes ranged from \$7.50 to \$8, and cull sheep \$3 to \$5.50. Receipts for the past week were 28,800 head, being against 25,121 head for the week

before, and 17,100 head for the same week a year ago.

Calves.—The first three days of last week showed top veals selling at \$19, with culls going from \$15 down, Thursday top lots brought up to \$20, and Friday the bulk made \$21. Cull grades the latter part of the week brought up to \$16. Few weighty fat calves sold above \$12, with some rough kinds landing around \$8, and few grassy kinds reached above \$6.50 and \$7. The past week's receipts totaled 3,300 head, being against 3,854 head for the week preceding, and 2,000 head for the corresponding week a year ago.

Toronto Produce.

Receipts of live stock at the Union Stock Yards, Toronto, on Monday, November 17, numbered 445 cars, 7,330 cattle, 351 calves, 5,902 hogs, 7,740 sheep and lambs. Strong active market. Heavy steers 50 cents higher, but choice steers and heifers 25 to 50 cents higher; top, \$13.50 per hundred for forty-one steers averaging 1,200 pounds each. Good cows 25 to 50 cents higher. Common cows, bulls and calves steady. Sheep strong; spring lambs strong; top, \$14.10, with bulk at \$13.50 to \$14. Hogs, \$17.75, fed and watered.

Breadstuffs.

Wheat—Ontario (f.o.b. shipping points, according to freights)—No. 1 winter, per car lot, \$2 to \$2.06; No. 2 winter, per car lot, \$1.97 to \$2.03; No. 3 winter, per car lot, \$1.93 to \$1.99; No. 1 spring, per car lot, \$2.02 to \$2.08; No. 2 spring, per car lot, \$1.99 to \$2.05. No. 3 spring, per car lot, \$1.95 to \$2.01. Manitoba, No. 1 northern, \$2.30; No. 2 northern, \$2.27; No. 3 northern, \$2.23.

Manitoba Barley.—(In store, Ft. William), No. 3, \$1.47½; No. 4 C. W., (not quoted); rejects, \$1.32.

Oats.—Manitoba (in store, Ft. William) No. 2 C. W., 85½¢; No. 3 C. W., 83½¢; No. 1 feed, 81½¢; No. 2, 79½¢.

Oats.—Ontario, (according to freights outside) No. 3, white, 85c. to 87c.

American Corn.—(Track, Toronto, prompt shipment) No. 2 yellow, \$1.82; No. 3 yellow, \$1.81.

Barley.—(According to freights outside), malting, \$1.45 to \$1.48.

Peas.—(According to freights outside) No. 2, \$2.50.

Buckwheat.—(According to freights outside), \$1.31 to \$1.33.

Rye.—(According to freights outside), No. 2, nominal.

Flour.—Manitoba, Government standard, \$11, (Toronto); Ontario, (in jute bags, prompt shipment). Government standard, \$9.50 to 9.60, Montreal and Toronto.

Millfeed.—Car lots delivered, Montreal freights, bags included.—Bran, per ton, \$45; shorts, per ton, \$52; good feed flour, bag, \$3.25 to \$3.50.

Hay.—(Track, Toronto), No. 1 per ton, \$25 to \$26; mixed, per ton, \$18 to \$21.

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

Hides and Wool.

Prices delivered in Toronto: City Hides.—City butcher hides, green, flats, 35c.; calf skins, green flats, 65c.; veal kip, 45c.; lamb skins and shearlings, \$2.75 to \$3.

Country Markets.—Beef hides, flat, cured, 35c.; green, 30c.; deacon and bob calf, \$3.60 to \$5; horse hides, country take-off, No. 1, \$10 to \$12; No. 1 lamb skins and shearlings, 75c. to \$2; horse hair, farmers' stock, 35c. to 40c.

Wool.—Unwashed fleece wool as to quality, fine, 40c. to 60c. Wool, washed, fine, 65c. to 75c.

Country Produce.

Butter firmed slightly on the wholesales during the past week, advancing 1c. per lb., selling as follows, wholesale: Choice creamery pound prints selling at 64c. per lb.; cut solids at 62c. to 63c. per lb.; and best dairy at 60c. per lb.

Eggs kept stationary in price, with very light offerings of new-laid, selling as follows, wholesale: New-laid, 80c. per doz.; selects at 63c. per dozen; and No. 1's at 60c. per dozen.

Pure lard was easier in price, wholesale, selling at 28c. per lb. in tierces; 28¾c. per lb. in 20-lb. pails, and 30c. per lb. prints.

Honey.—Choice comb, \$5 to \$6 per dozen; strained, 25c. to 26c. per lb.

Poultry.—Receipts were heavy and prices practically stationary on all lines.

The following quotations are for live weight, delivered, Toronto: Spring chickens, 20c. to 23c. per lb.; ducklings, 20c. per lb.; old ducks, 15c. per lb.; hens under 4 lbs., 15c. per lb. Hens 4 to 5 lbs., 18c. per lb. Hens over 5 lbs., 23c. per lb.; roosters, 15c. per lb.; geese, 18c. per lb.; turkeys, 33c. per lb.

Wholesale Fruits and Vegetables.

Both the orange and lemon markets were very weak the past few days, and prices materially declined.

Apples kept firm on choice quality fruit. Poor grades being difficult to dispose of. Onions and Potatoes.—Onions kept quite firm at the existing high prices, while potatoes again advanced.

Wholesale Quotations.

Apples.—Western boxed, \$3.15 to \$4.50 per box; Ontario boxed, \$1.60 to \$3.25 per box; Ontario and Nova Scotia barrels, \$4.50 to \$9; baskets, 50c. to 75c. per 11 quarts.

Grapes.—Imported Emperors, \$7.50 to \$8 per keg; \$4.25 to \$4.75 per lug.

Pears.—Imported, \$5 to \$6 per box; domestic, Keiffers, 25c. to 50c. per 11 qts.; better varieties, 75c. to \$1 per 11 qts.

Tomatoes.—Hot-house No. 1's, 30c. per lb.; No. 2's, 25c. per lb.

Beets.—\$1.35 to \$1.50 per bag.

Cabbage—\$1 to \$1.25 per bag, \$2.25 to \$2.50 per bbl.

Carrots.—\$1.10 to \$1.25 per bag.

Cauliflower.—50c. to 75c. per dozen.

Celery.—50c. to \$1 per dozen; \$2.75 to \$3.50 and \$4.50 to \$5 per case.

Cucumbers.—Hot-house, \$3 per dozen.

Lettuce.—Cal. Iceberg, \$6 per case;

Canadian Head at 80c. per doz.; Leaf, 30c. per doz.

Onions.—\$6.50 to \$7.50 per sack of 100 lbs.; \$5 to \$5.25 per 75 lbs.; Spanish, \$7 to \$7.50 per case.

Parsley.—A glut on the market.

Parsnips.—\$1.40 to \$1.50 per bag.

Potatoes.—\$2.35 to \$2.40 per bag.

Turnips.—90c. to \$1 per bag.

Seeds.—Alsike: Following are the prices that wholesalers are paying at country points per bushel: No. 1, fancy, \$25 to \$26.50; No. 1, \$23 to \$23.50; No. 2, choice, \$22 to \$22.50; No. 2, \$21 to \$21.50; No. 3, \$17 to \$17.70; rejected, \$10.40 to \$14.

Montreal.

Horses.—The horse market is attracting no attention just now. Heavy draft horses sell at \$250 to \$300 each, weighing 1,500 to 1,600 lbs. each; light draft, weighing 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, \$125 to \$175; culls, \$50 to \$75 and saddle and carriage animals, \$150 to \$250 each.

Dressed Hogs.—The mild weather is somewhat against demand for dressed hogs and the market has been quiet at 25c. per lb. for abattoir dressed hogs and light country dressed sold at 21½c. to 22½c. per lb.

Poultry.—The market for poultry will probably become more active from this onward, as the weather becomes colder. Dressed turkeys were quoted at 40c. to 44c. per lb., chickens 20 to 28c.; ducks, 30c. to 34c. and geese 22c. to 24c. per lb., as to quality.

Potatoes.—The market for potatoes continued a little uncertain. Supplies of Quebec stock were fairly large and the quality is good, but these remarks do not apply to Green Mountains to the same extent as in the past few years. Very little of the latter potatoes are available. Car lots of Quebec white stock were quoted at \$1.80 per bag of 90 lbs., while for smaller lots, in store, the price was \$2 to \$2.25 per bag.

Honey.—White clover comb honey, in pound sections, was quoted at 23c. to 25c. per lb., while white clover strained was 18c. to 20c. in 30-lb. pails and buckheat was 18c. to 20c. per lb.; maple syrup was scarce at 30c. to 35c. per gallon tin.

Eggs.—The price of fresh-gathered eggs continued to mount and there is no telling where it may go. The production is light and the bulk of the receipts is of rather inferior quality. Fresh gathered stock was 75c. to 80c. per

doz., selects 64c., No. 1 stock was 58c. and No. 2 stock, 55c. per doz.

Butter.—The price of butter continued unchanged during last week, this being the first week for some time of which this could be said. Pasteurized creamery was 63¼ to 63½c. per lb., finest creamery being 62½c. to 63c., fine creamery, 61½c. to 62c., and finest dairy 57c. to 58c. per lb.

Cheese.—Reduction is now very light and prices are firm, being 30c. to 31c. per lb.

Grain.—Oats were quoted car lots, basis track, Montreal, at 99c. per bushel for No. 2 Canadian Western, in transit and for Nov. shipment from Ft. William, while No. 3, were quoted at 97c., extra No. 1 feed being 97½c., No. 1 feed being 96c., and No. 2 feed, 93½c. In store, No. 2 Canadian Western were 97½c.; No. 3 were 95½c.; tough No. 3 were 94c., and No. 2 feed, 92c.

Flour.—Manitoba spring wheat flour was steady at \$11 per bbl., in jute bags, ex-track, Montreal freights or to city bakers, with 10c. off for spot cash. Ontario winter wheat flour was \$10.50 to \$10.60 per bbl., cotton bags. White corn flour was \$9.80 to \$9.90 per bbl., and rye flour \$8.25 to \$8.50, in jute.

Millfeed.—The market for millfeeds, was easier, owing to increased offerings. Bran was quoted at \$43 to \$43.50 per ton, and shorts at \$50 to \$51, ex-track, though some were asking \$1 more. Smaller lots brought \$1 to \$2 per ton more. There is some demand for export to the United States.

Baled Hay.—Sales of car lots of good No. 2 timothy hay were reported at \$23 to \$24 per ton, No. 3 being \$21 to \$22 and clover and clover mixed, \$20 to \$20.50.

Hides.—The market was steady, being 33c. per lb. for steer and cow hides, and 25c. for bull hides, veal skins being 75c. per lb., and kips 50c. Lambskins were unchanged at \$2.60 each and clipped lambs at \$1.25 each, while horse hides were \$12.50 each.

Chicago.

Hogs.—Heavy, \$14.10 to \$14.50; medium, \$14.10 to \$14.55; light, \$14.10 to \$14.55; light lights, \$14.25 to \$14.50; heavy packing sows, smooth, \$13.60 to \$14; packing sows, rough, \$13.25 to \$13.50; pigs, \$14.24 to \$14.75.

Cattle.—Compared with a week ago: Beef steers, mostly 50c. to 75c. higher. She-stock, 25c. to 50c. higher; bologna bulls, 50c. higher; butcher bulls steady; canners and cutters mostly 25c. higher; veal calves mostly 50c. higher; best grade stockers and feeders 50c. to 75c. up; common grade stockers steady to 25c. higher; Western 25c. to 50c. higher.

Sheep.—Compared with a week ago: Fat lambs, big, 25c. higher; sheep, strong, to 25c. higher; feeders steady.

Victory Bonds.

Following were the values of Victory Bonds on the Toronto market Saturday, November 15: Victory Bonds maturing 1922, 100¼; Victory Bonds maturing 1923, 100¼; Victory Bonds maturing 1927, 102¼ to 102½; Victory Bonds maturing 1933, 103½; Victory Bonds maturing 1937, 104½ to 104¾.

Sale Dates.

Nov. 26, 1919.—Elgin County Holstein Breeders' Club Sale, St. Thomas.

Nov. 27, 1919.—F. A. Ficht & Son, Woodstock, Ont.—Holsteins.

Dec. 2, 1919.—David Caughell, R. 8 St. Thomas.—Holsteins, farm stock, etc.

Dec. 2, 1919.—Wm. Steen, R. R. 3, Northwood, Ont.—Scotch Topped Short-horns.

Dec. 3, 1919.—Niagara Peninsula Holstein-Friesian Association, Dunnville, Ont.

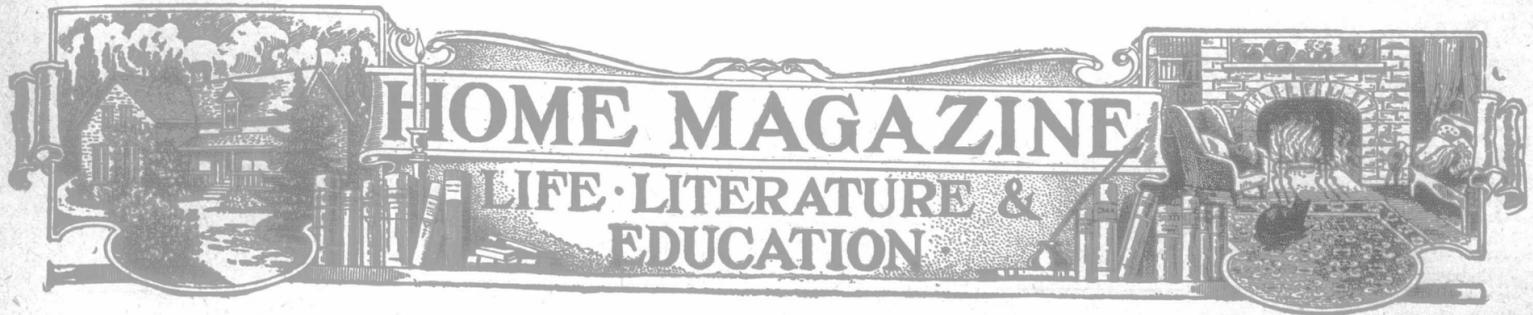
Dec. 10, 1919.—Hon. Peter Smith, Sebringville, Ont.—Holsteins.

Dec. 12, 1919.—Ontario Hereford Breeder's Association, Guelph, Ont.

Dec. 17, 1919.—Oxford County Holstein Breeders' Club semi-annual sale at Woodstock, Ont.

Dec. 18, 1919.—Southern Counties Ayrshire Breeder's Club Sale at Woodstock, Ont.

Dec. 18, 1919.—Brant District Holstein Breeders Sale, Brantford, Ont.



Make Firm the Peace.

BY ALFRED NOYES.

Now, in this morning of a nobler age,
Though night-born eyes, long-taught
to fear the sun,
Would still delay the world's great
heritage,
Make firm, O God, the peace our dead
have won.

For Folly shakes the tinsel on its head,
And points us back to darkness and
to hell
Cackling 'Beware of visions,' while our
dead
Still cry, 'It was for visions that we fell.'

They never knew the secret game of
power.
All that this earth can give they thrust
aside.
They crowded all their youth into an
hour,
And, for one fleeting dream of right,
they died.

Oh, if we fail them, in that awful
trust,
How should we bear those voices
from the dust?
—The Daily Mail, London.

**Training Young Canada
For Parliament.**

ALL over Ontario and the West, during the past few weeks, farmers have been elected to the Legislature. If they make good, that is, "play fair" for the whole country and for all classes in it,—as we confidently expect—they have probably entered the halls of Government to stay.

Now, sitting in Parliament requires more than a clear head and good business ability. If a member is to be anything more than a mere figurehead, he must be able to speak, if occasion comes. He must be able to express himself fluently and to "think on his feet." For lack of these qualifications many a man of fine ideas has been obliged to sit silent—and the country has suffered. Or he may have found himself out-talked and out-generalled by some man with a good run of the tongue, but who is, comparatively, a mere "wind-bag" where ideas are concerned.

Of course *practice* is one of the secrets of good speaking. When a man has enough of it to get rid of stage-fright and become unselfconscious, he is in a position to say what he really thinks in the best way of which he is capable. For this reason, during the coming winter, the country districts, as never before, should have speaking, speaking everywhere. Debates and literary societies should flourish, "Farmers' Clubs" should grow apace, "dinners" should become fashionable and toasts encouraged—now that they must be drunk in cold water there is no danger of befuddled brains therefrom. And everywhere it should be insisted that the men, at least, shall *speak*, not read, their addresses. . . . By such ways is real talent discovered. There is no saying what genius for oratory and administration a single winter of such practice may not develop, or reveal.

Nor will such occasions stop with training men to express themselves: they train, also, the power to *think*. When a man has to get up a speech he has to inquire *all around* his subject; there must be no weak spot in his argument—if he can prevent it. After a little practice of this kind he will be surprised to find his ideas taking more definite form and his faculty for seeing into things growing. . . . Again, when he takes part in a debate he finds it necessary

to meet argument with argument—a capital mental exercise. The post of "critic," at a debate, is an equally good exercise: one that develops judgment; while the opportunity to propose or reply to a toast invites the grace that should come at such times. Indeed dinners and other social functions are a distinct help to everyone who wishes to acquire conversational ability and ease in "mixing" with people. The touch of conviviality breaks stiffness and loosens the tongue; opinions are interchanged, and the ripple of repartee set going.—It is not a difficult matter to hold banquets in the rural districts, and this form of coming together socially should be encouraged. There is no necessity to have a luxurious spread, emphasizing too much the eating part of the entertainment; all that is required is to have the usual "good supper" of the country, attractively served, with especial attention to the decoration, and the speeches at the end the real feature of the occasion.

So much for training of the grown-ups in public speaking. But is it not advisable to begin much sooner, even in the lower classes of the public schools? One would not suggest turning the hot school lunch, so persistently and advisedly advocated these days, into a banquet with speeches—the children need the greater part of the noon-hour for play; but might not a part of every Friday afternoon be given to asking a child, here and there, "What do you think about so-and-so?"—the questions suited to the age and advancement of the child, and the answers to be given by him on his feet. Is it not safe to say that children so trained will find little embarrassment, later in life, when called upon to propose a toast at a wedding, or to voice an opinion in a political meeting? . . . Of course, it is taken for granted that the teacher shall insist absolutely that the language with which the young speaker

expresses his thought shall pass muster. As the child grows, so the man will be. Some day the man, because of his ideas, may get into the Legislature, and the consciousness of being able to speak properly will be a great comfort as well as a great advantage to him.

At this point it may be well to remark that that in all this training, whether of the child in school or the young man in the rural club, it is well to make the subjects rather easy for the first time or two. For instance if you ask a young speaker, the first time he stands up to deliver himself in public, to tell what he thinks his community needs for its improvement, he is much more likely to make a fair attempt than if you require him to give a dissertation on the League of Nations or a pronouncement on the political situation in Canada. It is wonderful, however, how quickly young people progress when the necessity to speak comes frequently enough; often in the course of a few weeks they surprise themselves as well as their friends.

Perhaps it may seem that this article is a "men's" article, written almost solely for men; but not so. If you will pause to think about it you will know that very often Literary Societies, Debating Clubs, etc., are started by women and girls. Men don't always "bother" about such things. They are interested in the Farmers' Clubs, it is true, but there they talk chiefly about live-stock and farming—excellent subjects. The "United Farmers" adds politics,—another excellent idea, and one hitherto much needed in Canada. There remains, however, a whole range of subjects untouched by these Associations and likely to be left untouched if the women and girls make no move to the contrary. These are the cultural subjects, and those which deal especially with community life—as necessary, surely, for their effect upon thought and senti-

ment, as others of more practical nature.

Besides, the *social* side of life must by no means be neglected. It is necessary for men and women, young men and young girls, to meet frequently at paths rings in which the crowd can "mix up" informally. Such meetings are necessary to the rounded out life of every community and every individual. Folk must not become "queer" because of being too much alone, nor communities backward for lack of social opportunities. It is not sufficient that one or two sides of human nature be developed: *all* sides must be if the individual or the community is to become the *all-round* personality that most closely approaches the ideal. Communities, you see have personalities as distinct as those of individuals. They may be, on the whole, progressive or backward, cultured or uncouth, intellectual or ignorant; social or unsocial, idealistic or grovelling,—and are often spoken of as such.

But, to return to our *moutons*.—In all this work of "starting things" women and girls have a part, and a great part, to carry out. In these days they take all subjects for their province, and rightly so—it is right that they should be interested in politics and farming,—yet it would be a sorry day for the world if women were to turn away from the social graces and social opportunities which do so much towards smoothing and gladdening life.

November is now well past. The winter is passing. If you have no facilities for public speaking in your neighborhood, get something going as soon as possible—and, by all means, begin with a banquet or other social gathering. Who knows but that, in your little neighborhood may be to-day a future Premier of your Province, or even of this Dominion? Give him a chance to begin his training without further delay.



Mr. Asquith at the League of Nations Union Meeting.

On the 13th of October the inaugural meeting of the national campaign of the League of Nations Union was held at the Mansion House. The chief aim of the Union is to secure the whole-hearted acceptance by Great Britain of the principles of the League of Nations, and to form a strong backing for British delegates to the League. The photo shows: The Lord Mayor of London and Mr. Asquith standing, and Lord Robert Cecil sitting on right.

...c., No. 1 stock was 58c.
...55c. per doz.
...price of butter continued
...ring last week, this being
...or some time of which this
...Pasteurized creamery was
...per lb., finest creamery
...63c., fine creamery, 61½c.
...st dairy 57c. to 58c. per lb.
...duction is now very light
...firm, being 30c. to 31c.
...were quoted car lots,
...ntreal, at 99c. per bushel
...adian Western, in transit
...ipment from Ft. William,
...ere quoted at 97c., extra
...eing 97½c., No. 1 feed
...No. 2 feed, 93½c. In
...Canadian Western were
...ere 95½c.; tough No.
...No. 2 feed, 92c.
...toba spring wheat flour
...11 per bbl., in jute bags,
...real freights or to city
...0c. off for spot cash.
...wheat flour was \$10.50 to
...1, cotton bags. White
...\$9.80 to \$9.90 per bbl.,
...25 to \$8.50, in jute.
...e market for millfeeds,
...ng to increased offerings,
...at \$43 to \$43.50 per ton,
...0 to \$51, ex-track, though
...ing \$1 more. Smaller
...o \$2 per ton more. There
...for export to the United
...ales of car lots of good
...hay were reported at
...n, N. 3 being \$21 to \$22
...clover mixed, \$20 to
...market was steady, being
...steer and cow hides, and
...es, veal skins being 75c.
...s 50c. Lambskins were
...2.60 each and clipped
...ch, while horse hides were

Chicago.

\$14.10 to \$14.50;
to \$14.55; light, \$14.10
lights, \$14.25 to \$14.50;
sows, smooth, \$13.60
sows, rough, \$13.25 to
24 to \$14.75.
ared with a week ago:
tly 50c. to 75c. higher.
o 50c. higher; bologna
; butcher bulls steady;
ers mostly 25c. higher;
y 50c. higher; best grade
eders 50c. to 75c. up;
tockers steady to 25c.
5c. to 50c. higher.
red with a week ago:
25c. higher; sheep,
her; feeders steady.

ry Bonds.

the values of Victory
ronto market Saturday,
Victory Bonds maturing
ctory Bonds maturing
ctory Bonds maturing
102½; Victory Bonds
103½; Victory Bonds
4½ to 104¾.

e Dates.

—Elgin County Holstein
le, St. Thomas.
—F. A. Ficht & Son,
—Holsteins.
—David Caughell, R. 8
steins, farm stock, etc.
—Wm. Steen, R. R. 3,
—Scotch Topped Short-

Niagara Peninsula Hol-
ciation, Dunnville, Ont.
—Hon. Peter Smith,
—Holsteins.
—Ontario Hereford Breed-
uelph, Ont.
—Oxford County Hol-
ub semi-annual sale at

—Southern Counties
s Club Sale at Wood-
—Brant District Hol-
e, Brantford, Ont.

The Fashions.

How to Order Patterns.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Address Fashion Department, The Farmer's Advocate and Home Magazine, London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

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

Name.....
Post Office.....
County.....
Province.....
Number of Pattern.....
Age (child or misses' pattern).....
Measurement—Waist..... Bust.....
Date of issue in which pattern appeared.....

3038-3040. A Stylish Costume.
Waist 3038 cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 3040 cut in 6 Sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. The entire dress will require 8 yards of 42-inch material for a medium size. The skirt measures about 1 1/2 yard at the foot. TWO separate patterns 10 cents FOR EACH pattern.

2679. Girls' Dress.
Cut in 4 sizes: 2, 4, 6 and 8 years. Size 4 will require 2 3/8 yards of 36-inch material. Price 10 cents.

3049. Ladies Cover-All Apron.
Cut in 4 Sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium requires 4 1/2 yards of 36-inch material. Price 10 cents.

3043. Girl's School Dress.
Cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 requires 3 3/8 yards of 44-inch material. Price, 10 cents.

3033. "Tunic" Dress.
Cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 5 3/8 yards of 44-inch material. Width of skirt at lower edge is 1 1/4 yards. Price, 10 cents.

3061. Doll's Set.
Cut in 5 Sizes for Dolls: 16, 18, 20, 22 and 24 inches in height. Size 18 will require 5/8 yard of 36-inch material for the dress, 3/8 yard of 40-inch material for the cape, and 1/2 yard of 20-inch material for the bonnet. Price, 10 cents.

3035. Girl's School Dress.
Cut in 3 sizes: 12, 14 and 16 years. Size 14 will require 5 1/8 yards of 27-inch material. Price, 10 cents.

3032. Ladies' House Dress.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5 3/8 yards of 36-inch material. Width of dress at lower edge is about 2 yards. Price, 10 cents.

2970. A Set of Pleasing Toys for the Nursery.
Cut in 1 size. Either style requires 3/4 yard of 27-inch material. Price, 10 cents.

3036. A Popular Style.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5 5/8 yards of 44-inch material. The dress measures about 2 yards at lower edge with plaits extended. Price, 10 cents.

3042. Girl's Dress.
Cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 requires 4 1/8 yards of 27-inch material. Prices, 10 cents.

3037. A Practical Model.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5 7/8 yards of 36-inch material. Width of dress at lower edge is about 2 1/4 yards. Price, 10 cents.

3053. Child's Dress.
Cut in 5 sizes: 1, 2, 3, 4 and 5 years. Size 4 requires 2 1/4 yards of 36-inch material. Price, 10 cents.

2733. Misses' Dress.
Cut in 3 sizes: 16, 18 and 20 years. Size 16 will require 3 3/8 yards of 44-inch material. The dress measures about 2 yards at the foot. Price 10 cents.

3034. A Popular Style.
Cut in 4 sizes: 2, 3, 4 and 6 years. Size 4 requires 2 5/8 yards of 44-inch material. Price, 10 cents.

2766. Ladies' Apron.
Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size 38 requires 3 3/8 yards of 36-inch material. The Sleeve protectors require 3/8 yard. Price, 10 cents.

3044. Misses' Dress.
Cut in 3 sizes: 16, 18 and 20 years. Size 16 will require 3 1/2 yards of 44-inch material. The skirt measures 1 1/2 yard at the foot. Price, 10 cents.

3059. Girls' Dress.
Cut in 4 sizes: 4, 6, 8 and 10 years. Size 10 requires 3 1/2 yards of 44-inch material. Price 10 cents.

2709. Ladies' Dress.
Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6 1/2 yards of 36-inch material. The skirt measures about 2 1/4 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 3/4 yards for the petticoat and 2 7/8 yards for the combination. Price, 10 cents.

3046-3048. Business Costume.
Waist 3046 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 38 will require 2 5/8 yards of 36-inch material. Skirt 3048 cut in 7 Sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. Size 24 requires for a one-piece skirt, 2 5/8 yards of 48-inch material if cut crosswise, and 2 1/8 yards of 54-inch material if cut lengthwise. With front and back seams—2 1/4 yards of 54-inch material will be required if cut with front edges straight, and 2 3/4 yards if front and back edges are cut bias. The Skirt measures about 2 1/2 yards at the foot. TWO separate patterns 10 cents FOR EACH pattern.

3051. Girls' Coat.
Cut in 5 sizes: 6, 8, 10, 12 and 14 years. Size 12 will require 4 1/4 yards of 44-inch material. Price 10 cents.

3045. Ladies' Envelope Chemise.
Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium requires 2 5/8 yards of 36-inch material. Price, 10 cents.

3062. Boudoir Set.
Cut in 4 Sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium requires 5/8 yard for the cap, and 3 3/8 yards for the sack, of 32-inch material. Price, 10 cents.

The Windrow

An attempt is to be made to grow cotton in the Belgian Congo district.

"The old woman who lived in a shoe must have been a pretty well-to-do old woman."—Cincinnati Times-Star.

About 500 co-operative societies are working full force in the Czecho-Slovak Republic to reduce the high cost of living. The branch societies are concentrated in a Central Union, and co-operation in the disposition of food, clothing and shelter is dealt with.

A Health Campaign conducted by American medical missionaries, has been inaugurated recently in China. China now has 400,000,000 population, on an average, although 16,000,000 die every year; the campaign, which is likely to be carried on, will add another 100,000,000 in ten years. Already baby clinics are being held and Health Exhibits somewhat similar to those with which we are acquainted, but more spectacular, are being sent round.

Representatives of the organized working women of twelve countries opened the first international working women's congress in history in Washington, D. C. The main purpose of the meeting was to formulate the program of legislation which the women of organized labor want recommended by the international labor conference soon to be held under the provisions of the Peace Treaty.

Business men of Great Britain, France, Belgium, Italy and the United States, have formed a World Trade League whose purpose is to form a commercial brotherhood which will consider mutual interests. Each country in the League of Nations will be entitled to send two representatives. It is believed that this Trade League may help, by removing the causes, to eliminate war.



NOVE
The
often
hearke
remem
for the
though
A be
the sil
Father
quiet C
Up to
Loud a
I, and
God
the wr
earth.
of mys
to tra
feet.
indiffer
messag
unjust
the aff
heard
maste
I am c
We a
Those
have b
God, if
Him
friends
of God
why He
Man w
Yet th
Cross v
embrac
of unfa
ear of t
God's
are far
as they
He is
silence
sorrow
soul,—
in spirit
and ca
After
real suc
called
ease.
rest an
the sak
grudge
and "m
the rev
discove
passed
to lit
God's
help us
portuni
of cours
with th
to Him
at las
riches
and we
God ma
what is
own chi
"Which
a
To have
Or to
v
That h
Pa
But
Happin
we nee
to claim
of God
consci
discove
in tribu
There
musicia
through
Eve an
playing
to gain
passers
panions
"Remer
Christ

Hope's Quiet Hour.

God is Listening.

Then they that feared the Lord spake often one to another; and the Lord hearkened, and heard it, and a book of remembrance was written before Him for them that feared the Lord, and that thought upon His Name.—Mal. 3:10.

A beautiful soul, reaching up through the silence to whisper to the heavenly Father, said: "O Holy silence, O Thou quiet God!" and then went on:

"We reach
Up to Thine ear our lips; we would have
sung
Loud as the angel-host,—ah! do we less?
I, and my brothers in the wilderness?"

God may seem to pay no attention to the wrongs endured by His children on earth. He hides Himself behind a veil of mysterious silence and allows tyrants to trample the helpless beneath their feet. But His silence does not mean indifference. Long ago the comforting message was sent to a nation crushed by unjust oppression: "I have surely seen the affliction of my people. . . and have heard their cry by reason of their task-masters; for I know their sorrows; and I am come down to deliver them."

We are easily deceived by appearances. Those who stood beside the Cross would have believed that Jesus was the Son of God, if the Father had interfered to save Him from agony and death. Both friends and foes misunderstood the silence of God. They could not understand why He was silent if He loved the dying Man who claimed to be His beloved Son. Yet those hands nailed to the awful Cross were free to reach up to the close embrace of the Father, and that dying cry of unflinching trust was spoken into the ear of the listening God.

God's plans for His suffering children are far greater than they can understand as they pray for swift relief from pain. He is sometimes silent, but it is the silence of wisest love. He sees the sorrow and hears the cry of the troubled soul,—and He cares! We can grow strong in spirit if we are confident that God knows and cares.

After all, we care more for making a real success of this great opportunity called "Life" than we do for present ease. Men will rise early and late, take rest and eat the bread of carefulness, for the sake of future gain; and they don't grudge the price if they "win out," and "make good." Yet, only too often, the reward fails to satisfy; and men discover, when the opportunity has passed by, that it has been frittered away to little purpose. Let us try to trust God's silence, knowing that He will help us to make the most of life's opportunity. We share His nature, and, of course, we can only be really satisfied with the achievements which are dear to Him. How disappointed we shall be at last if we have only won temporal riches, and must go forth in poverty and weakness to the real life ahead. God makes no mistakes and He knows what is really of priceless value to His own children.

"Which were better when the Night ends
and there breaks the awful Dawn,
To have dreamed in fruitless slumber,
to have lain supine and gross,
Or to have known the flame-wound,
wherefrom the balm is drawn
That heals a multitude of men?—The
Palace or the Cross?"

But our hearts instinctively seek joy. Happiness is our natural element, and we need not wait until this life is over to claim the Divine gift. In the Presence of God is fullness of joy, and if we live consciously in that Presence now we shall discover St. Paul's secret of rejoicing even in tribulation.

There is a story told of the great musician, Gounod, that he was going through the streets of Paris one Christmas Eve and saw a poor old man feebly playing on a musical instrument, trying to gain a few copper coins from the passersby. Gounod suggested to his companions that they should sing for him. "Remember," he said, "that it is Christmas Eve, and God Almighty

may be amongst those who listen to us to-night. Therefore let us do our best."

They did their best, and money poured in for the poor man, who gratefully asked the names of his benefactors, and was told that they were called "Faith Hope and Charity."

The other day I was at a meeting in connection with the Forward Movement of the Canadian Church. Those who were given literature to distribute in the homes of their neighbors, were advised to kneel down before they started making visits and ask God to make use of them and teach them what to say.

We are apt to think that we only need to do this when we are called to do "church work," and so we miss the daily gladness of God's everyday companionship in everyday work. A little boy—son of one of our readers—said he wanted to go to heaven to "help God do his chores." Isn't it a wonderful thing to remember that God came down to earth because He wanted to help His children with their "chores." I like that homely word which is so constantly used in the homes of our Canadian farmers. God doesn't want to be treated as a visitor and "entertained in the parlor." He wants to be "at home" in the houses of His busy children, and be allowed to help them in the commonplace "chores."

Because He is listening we must be careful how we speak and what we say. We don't like an honored guest to hear us speak crossly or complainingly. Those who are depressed in face and manner, in the ordinary home circle, usually flash into sprightliness when a visitor appears. A woman's voice may sound weary and mournful when she speaks to her own family. Then the telephone bell rings and she goes to answer the 'phone. Instantly there is a change. The tone and the words have a cheerful sound. Even the face will be brightened with a smile, although the listener cannot see her face. Especially will this be the case if the unseen listener be a prized friend. The speaker cannot see him, and he may be miles away, yet the reminder of him brings sunshine into the heart and face and voice of a discouraged woman.

Look up in the face of the Great Friend, and surely your bright smile will answer the smile in His eyes. Speak, remembering that He is listening; and gladness will ring out in the tones of your voice. Remember, also, that our Lord identifies Himself with His brethren. If we speak rudely to them we are guilty of rudeness towards Him; if we are kind to the children or the downtrodden, He says: "Inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me."

The little kindness and slight neglect are seen to be of really great importance when they are shown to our King. Let us make Him welcome, so that He may feel at home in our houses. Shall we treat Him as a neglected and forgotten Guest, just because work is pressing? He is willing to give wonderful help in our work if we will only turn to Him. After all, the work—if it is worth doing—is not our work but God's. He is the Master, and we are only under-workmen, obeying His orders.

A famous French pastor of the 18th century was not satisfied with inviting God to live with him, but chose the church to be his home. He was accustomed to spend hours there on his knees, "bathing in the flames of love which issued from the Divine Presence." The smile on his face, as he took the daily services, was so beautiful that his flock were filled with amazement. It seemed to them that he "saw our Lord." Many thousands of people came to his village home for spiritual help and guidance. Often there were crowds outside the church all night, waiting to speak to this friend of Christ. His influence for good was very great, because he was like a "live wire"—in continual contact with Infinite Power. He was just a man, but God worked through him. For practical living, that is the secret—an open secret. Our powerlessness is the consequence of being too busy to spend time with God.

A monk, called Anthony, was told that a cobbler in Alexandria was holier than he was. He visited the cobbler and was asked for the secret of his life. The cobbler said: "Every shoe I mend is to me Christ's own." What a joy life would be if we always remembered that the rooms to be cleaned, the clothes

to be mended, the dishes to be washed were in reality "Christ's own!"

If you are weary of the monotony of life and find commonplace duty dull—

"Think softly, soul, thy Lord is there,
And then betake thyself to prayer."

DORA FARNCOMB.

Gifts for the Needy.

Two gifts for the needy reached me to-day—a dollar from "a Lucknow friend," and two dollars from "Puslinch friend." Three parcels of papers for the "shut-in" also arrived this week. I will pass on these donations as soon as possible.

DORA FARNCOMB,
6 West Ave., Toronto.

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 a stamped envelope ready to be sent on. (4) Allow one month in this department for answers to questions to appear.

DEAR Ingle Nook Friends.—After Conventions of any kind there is always a great deal to talk about, is there not? Indeed that is one of the benefits of these gatherings and of all organizations—that they supply something to think about and talk about that is not mere gossip. Of late years many women's societies have been started, and some people fear we are in danger of over-organization, but I do not think so, at least so far as the rural districts are concerned. Any sensible farm woman—and most farm women are sensible—knows when she is over-taxing herself, or neglecting anything of consequence by connection with such things, and she can always withdraw. The weak spot of the old way was that women shut themselves up too completely with their own little affairs. It was a case of "me and my wife, my son John and his wife, we four, thank the Lord; no more." A mere glance at the work of the Women's Institute alone is sufficient to show how vastly superior it has been for the women of Canada to come out of their shells, and those who know most about it say that the homes have not suffered, but actually benefited, because of the new interests and new opportunities for learning modern methods in house-keeping that have come with the Institute. The U. F. W. is comparatively a young organization, but already it, too, is doing splendid work, although, perhaps, emphasizing a somewhat different line.

A dear little friend of mine who has been living "down south" for the past year blew into my den the other day. Her husband, an officer in the U. S. army, had been overseas; she herself (a real little genius in mathematics) had been doing business for a big produce company that supplied the military camps, and she had much to tell. She raved about the beauty of the southern cities—the wide boulevarded streets with flowering trees far as eye can see, the spacious old-fashioned houses, the look of easy culture everywhere; she spoke enthusiastically of the beauty of the women, their pretty faces, soft voices and gentle manners; then she stopped.

"But you know," she said, "they haven't enough to do. The men down there are more interesting than the women. The women have everything done for them; they just sit on verandahs most of the time, wear pretty clothes, do fancywork, read novels and talk about things that don't amount to much. They were always marvelling at the way I worked and asking me if all the Northern women had as much energy."

"I'd like to go back," she added, presently, "I loved the south and its people, and I liked doing the strenuous work I did there. At the same time," rather wistfully, "you Northern women have deeper interests. You always seem to have something worth while on the go. You don't spend much time gossiping."

I think that remark made me realize, more than before, the value of "keeping something worth while on the go," and that in this way, organizations for the public good stand first.

Looking back over the years since the Women's Institute was founded, it

appears that its efforts have gone in big waves, as it were, each of which reached its climax in the discussions, then settled down quietly to work while another came on. The first one years and years ago when the one Convention for Ontario met in Guelph, was all for cookery and household accomplishment. The next was for the Medical Inspection of schools—a movement now so well afoot that it will not stop until every section of Ontario, yes Canada, will be covered. The third, of course, was War work; and the fourth, just now beginning to gain momentum, is for *Community Work*. By community work is meant anything and everything that brings the people together in co-operation for those things that will make the community a happier, more sociable, better-all-around place to live in.

Of course that is a large order. Glancing along its possibilities one sees not only debating societies and neighborhood convivialities, but also health campaigns, lecture courses, tree-planting days, marketing plans, community concerts, community libraries, perhaps even community moving-picture shows—this last foreshadowed in the fact that at the recent W. I. Convention in London one of the resolutions dealt with the necessity for censorship of the movies and encouragement of a wider use of educational films.

One really can't see how all this can be brought about without Community Halls, and it was pleasing to hear at the Convention that in Western Ontario several Institutes have already begun, in one way and another, to raise money for this end. Among these were the branches at Blyth, Crediton, Sebringville, and one or two other places whose names I can't remember. I should be glad by the way, if some of these branches would write a description of their methods of raising funds and send it to me for publication in the Ingle Nook. Such letters might be a great help and inspiration to other places which would like to have a Community Hall but do not exactly know how to go about raising the money for one.

It seems to me that an ideal Hall should have: (1) A good auditorium, with a roomy stage and dressing-rooms. (2) A big basement with well-equipped kitchen. (3) A cloak-room (4) A room for storing the seats when the floor-space of the auditorium is needed, and the tables (occasionally needed for banquets) at other times. Ideally the auditorium should have pictures, a handsome drop curtain that will drop, a big fire-place and a few armchairs (to transfer the place into a rest-room when needed), book-cases, magazines, and a big reading-table. If very ambitious it might have the Community Library adjoining.

Speaking of drop curtains reminds me of a funny incident. Upon one occasion, in a little Northern town, the then Attorney-General of Ontario, Mr. I. B. Lucas, was speaking. My sister, who had some part in the program, was sitting on the front seat, and, near her, a daring little schoolboy who had ventured up thus far. There was a very clumsy drop curtain with a huge wooden roller at the bottom of it, in connection with the stage, raised, of course, for the occasion. By some fault in the mechanism, just before the Attorney-General concluded his speech, the curtain began to unroll. Slowly, down and down, directly above the speaker's head, came the ponderous roller. Talk about the sword of Damocles! My sister watched in some consternation, but trusted to the good genius behind the scenes to see to it. Not so the school-boy. He hopped about on the seat for a minute in evident excitement, then called out:

"Hi, mister! Look out fer yer nut!"

In the interests of "nuts", then, when you build your Community Hall, see to the drop curtain.

Just here, in places where Church Union has taken hold, might not one of the disused churches be dismantled of its ecclesiastical appendages, remodelled completely, and so turned into a Community Hall? It could scarcely be put to a better use, and the saving in expense would be tremendous.

Oh, I see your beautiful hall—and don't forget that the Government will help to pay for it. Once you have it, besides forming a home for your Institute, Farmer's Club and other meetings, will bring a host of interesting things to your community,—better movies, and

Dress.
16, 18 and 20 years.
Require 3 1/2 yards of 44-
The skirt measures 1 1/2
Price, 10 cents.

Dress.
4, 6, 8 and 10 years.
3 1/2 yards of 44-inch
10 cents.

Dress.
34, 36, 38, 40, 42, 44
bust measure. Size 38
yards of 36-inch material.
The skirt measures 1 1/2
yards at 2 1/4 yards at
10 cents.

Short clothes Set.
1, 2, 3, 4 and 5 years.
3 1/4 yards of 27-inch
dress, 1 1/4 yards for
and 2 1/8 yards for the
ice, 10 cents.

Business Costume.

cut in 6 sizes: 34, 36,
4 inches bust measure.
2 1/2 yards of 36-inch
048 cut in 7 Sizes: 22,
2 and 34 inches waist
requires for a one-piece
48-inch material if cut
1/2 yards of 54-inch ma-
terial. With front and
yards of 54-inch material
if cut with front edges
yards if front and back
The Skirt measures
at the foot. TWO
10 cents FOR EACH

coat.

6, 8, 10, 12 and 14
all require 4 1/4 yards of
Price 10 cents.

Envelope Chemise.
Small, 32-34; Medium,
42; and Extra Large,
measure. Size Medium
of 36-inch material.

Set.

Small, 32-34; Medium,
and Extra Large,
measure. Size Medium
the cap, and 3 3/8 yards
inch material. Price,

Windrow

to be made to grow
in Congo district.

who lived in a shoe
pretty well-to-do old
Times-Star.

erative societies are
in the Czecho-Slovak
the high cost of
n societies are con-
tral Union, and co-
sposition of food,
is dealt with.

aign conducted by
issionaries, has been
y in China. China
0 population, on an
6,000,000 die every
which is likely to
another 100,000,000
eady baby clinics
d Health Exhibits
to those with which
ut more spectacular,
the organized work-
countries opened
l working women's
Washington, D. C.
of the meeting was
ogram of legislation
of organized labor
y the international
to be held under
Peace Treaty.

eat Britain, France,
the United States,
rld Trade League
form a commercial
ill consider mutual
try in the League
ttitled to send two
believed that this
help, by removing
te war.

concert companies, and lecturers. Above all things don't forget the lecturers. Work up an interest in them; there is no influence more educative or more inspiring. . . . And you or your sect will be stimulated to "getting up" things. Perhaps it will start a dramatic club ambitious enough to attempt even high-class drama, as the "Janey Canuck" Club down near Ottawa did; perhaps it will go in for sing-songs, or for a "Music and Art" society; occasionally there may be a dance. The old prejudice against dancing is gradually fading away, these days, especially since it is the fashion now to have all over by midnight, but wouldn't it be fine if more attention were paid to folk-games and all those pretty dances where each dances alone? Personally I have not the slightest objection to round and other "partner" dances where the crowd is all right, but I like still better to see these in which the arms take a part as well as the feet—they are so very graceful, and help so to develop the whole body in grace and symmetry. The Highland fling and Irish lilt are fine, so is the sailor's hornpipe; but I think the prettiest thing I ever saw in my life was a dance of young girls on a stage. They wore long, floating white gowns, and carried long wreaths of flowers, and as they went in sinuous curves about the stage the rhythmic movement of their bodies and arms formed a perfect poem in action. In Maeterlinck's "Blue Bird," too, there are some very pretty figures.—Do you remember the "Dance of the Hours"? . . . In dancing schools such as that carried on by Mrs. Somers in Toronto, girls are taught all of these "single" dances, even to the "Highland fling." Some of you may remember the beautiful entertainment put on at Toronto Exhibition evening performance two or three years ago, when hundreds of young dancers went through the "Highland" step, Irish lilt and sailor's hornpipe. I was told afterwards that all of them were girls. The minuett and pavanette at Jubilee Park (Eaton's store) last summer were also danced by Mrs. Somers's pupils.

NOW lest you may think Junia is becoming altogether too gay and giddy, to a more serious subject: I have been approached, lately by a distressed friend who has been deputed to buy some books for her community library. She wants to know what is new—"and good"—in recent fiction.

Unfortunately I have been much too busy to read many books of fiction this fall, but I have made note of some that I have seen written up in "The Independent," and "The Bookman." I have always found it pretty safe, so far as my own taste goes, to try anything recommended by these two publications.

I find the following among the titles on my long list:

Fiction.—"Christopher and Columbus," by the author of "Elizabeth and her German Garden" (Doran Pub. Co., New York); "The Great Hunger," by Johan Bojer (Moffat, Yard & Co., New York); "The Happy End," by Joseph Hergesheimer (Knopf Pub. Co., N. Y.); "The Arrow of Gold" (Doubleday, Page & Co., Long Island, N. Y.); "Conrad in Quest of His Youth," by Leonard Merrick (Dutton Pub. Co., N. Y.); "The Undying Fire," H. G. Wells (Macmillan's); "Mary Olivier," by May Sinclair; "The Gay Dombey," by Sir Harry Johnston; "The House of the Misty Star," Frances Millar; and in the humorous section; "The Life of the Party," by Irvin Cobb (Doran Pub. Co., N. Y.); "Ma Pettengill," by Harry Leon Wilson (Doubleday Pub. Co., Long Island, N. Y.); "Deep Waters," by W. W. Jacobs.

But why stick to fiction? Biography and autobiography are even more fascinating—at least to a great many people. Among the newer books I find quite highly recommended by my "authorities," "Burns, How to Know Him," by William Allan Neilson; "Goethe," by Prof. Calvin Thomas (Henry Holt & Co., N. Y.); "The Journal of Leo Tolstoy," (Alfred A. Knopf Pub. Co., N. Y.); "Henry Thoreau," by E. W. Emerson (Houghton, Mifflin Co., N. Y.)—These books I intend to become acquainted with as soon as I can.

Books are splendid Christmas gifts for children, and one is always safe in buying Kingsley's "Heroes," "Alice in Wonderland," the children's "Arabian Nights," "Robinson Crusoe," "Tangle-

wood Tales," and for the older boys Fenimore Cooper's books, Henty's, and Robert Louis Stevenson's "Treasure Island" and "Kidnapped." These are, of course, old books. Among the new ones are "The Children's Fairy Land," by Harriet Olcott (Henry Holt & Co., N. Y.), and "The Children's Life of the Bee," by Maeterlinck (Dodd, Mead & Co., N. Y.) "The Hilltop Troop," a Scout book, by Arthur S. Pier, (Pub. Houghton, Mifflin & Co., Boston) is said to be very interesting to boy scouts.

Anyone who wants to get up children's plays might find the necessary help in "Children's Plays," by Ada Skinner (D. Appleton & Co., N. Y.)

Among the new books written by Canadians are:

"Canada's Sons and Great Britain in the World War," By Col. Geo. Nasmith, C. M. G. (Thomas Allen Pub. Co., Toronto, \$3.50)—Col. Nasmith always writes interestingly.

"Through St. Dunstons to the Light," by Pte. Jas. Rawlinson (Thomas Allen, \$1.00) "Rainbow Valley," by L. M. Montgomery; "Golden Dicky," by Marshall Saunders; "Joan at Halfway," by Grace McLeod Rogers; "In Orchard Glen," by Marian Keith; "The Touch of Abner," by H. A. Cody; "Mist of Morning," by Isabel Ecclestone MacKay; "Bulldog Carney," by W. A. Fraser; "Janet of Kootenay," by Evah McKowan. (The last eight are published by McClelland & Stewart Pub. Co., Toronto.)

A delightful and educative children's book is "Bob and Bill See Canada," by Alfred E. Uren. Bob and Bill are two young rabbits who live in a brush pile on a hill in Nova Scotia. They decide to travel to the Pacific, and start off. The story is written in rhyme and very well illustrated. The book is published by the Musson Co., Toronto; price, \$1.25.

If you cannot find these books in your nearest bookstores, write to the publishers for catalogue and prices.

Just a word in closing. At the London Convention a strong plea was put forward in behalf of Canadian writers. Canadian writers are grateful for all such kind interest, but I am sure they do not wish especial coddling. They want to take their place with the world's writers, standing or falling according to their merit. It is fine to give Canadian authors a place on your bookshelves, but do not do so to the absolute exclusion of authors of other nationalities. To do so is to become provincial, narrow, and, to a certain extent, uneducated. Imagine passing by H.G. Wells, John Galsworthy, Jerome K. Jerome, E. V. Lucas, Hugh Walpole, Joseph Conrad and May Sinclair because they are English! Or St. John Ervine and Katharine Tynan because they are Irish! Or Blanco Ibanez because he is a Spaniard! Or Maeterlinck because he is a Belgian! Or J. M. Barrie because he is Scotch! Or Doestoevsky and Turgenyev because they are Russians! Or Ernest Poole, Winston Churchill and Mary Roberts Rinehart because they belong to the United States!

No, no, my friends.—Do not let us be narrow. Humanity is greater than even one's own country; a good thing is a good thing wherever one finds it; and Canadian writers are too big to want to be especially coddled. —JUNIA.

Keeping Geraniums.

For J. T. C., Waterloo Co., Ont.

If the cellar is not too dry geraniums may be kept by taking them up, shaking the soil off the roots, and hanging them up "heads down," in a cool, dark part. Towards spring repot, water and place in a sunny window. Some leave the plants in the pots, in a cool dark part of the cellar, letting the soil dry out almost completely. The leaves will drop off but new growth will start when the plants are brought up after a two or three months rest.

Worth Thinking Over.

"I never won anything without hard labor."—Theodore Roosevelt.

"The more man develops agriculture the better for everyone." —Sir Oliver Lodge.

The Cookery Column.

Mock Cherry Pie.

1 cup cranberries, 1 cup water,
1 cup brown or ½ cup seeded
maple sugar raisins,
1 tablesp. flour.

Boil all together stirring in the flour moistened with water; when cold add 1 teasp. vanilla and a little extract of almond. Bake with 2 crusts.

Sour Cream Pastry.

1½ cups flour, ½ teasp. soda,
½ tablesp. salt, sour cream.
Wet the flour with just enough cream to make a firm dough.

Corn Bread.

1 cup cornmeal, 1 teasp. salt,
1 cup flour, 1½ cups milk,
4 teasp. baking powder, 2 tablesp. shortening,
3 tablesp. sugar, 1 egg.

Mix dry ingredients in a bowl; add the milk, melted shortening, and beaten egg. Beat well and pour into a well-greased, shallow pan. Bake in a hot oven about 25 minutes.

Stuffed Potatoes.

Scrub the potatoes with a brush, rub with butter and bake. Break 4 of them in halves, while hot, scoop out and mash fine. Add 1 tablesp. melted bacon fat, ¼ cup grated cheese, nearly ½ teasp. salt, pinch of pepper and enough milk to beat into a soft fluffy mixture. Refill the shells, brush over with melted bacon fat, dust with pepper, and brown in oven.

Holland Red Cabbage.

Slice red cabbage and soak in cold water. Put 1 quart in a saucepan with 2 tablesp. shortening, ½ teasp. salt, a sprinkle of nutmeg and few grains of cayenne. Cover and cook until tender. Add 2 tablesp. vinegar, 1 teasp. onion juice and 2 tablesp. sugar, and cook 5 minutes longer. Chop fine and serve with grated egg-yolk over.

Kitchen and Furnace Fires

Keep old gloves, an old cap and an overslip to put on when attending to the furnace, and much worry from roughened hands, dusty hair and soiled clothing will be prevented. Don't forget to keep the water-pan in the furnace filled, also, if the house is heated by stoves, keep a pan of water on each. This will prevent the air from becoming too dry for health, moreover rooms are much warmer when there is enough moisture in the air. Another fuel-economy is to shut the oven damper and leave the oven doors open so that the heat will be thrown down about the floor. To start a fire so that it will burn well, see that the sticks cross, or partially cross each other in such a way that a free current of draught upward will be permitted; a current of air under the fire causes it to burn, and the purer the air the better; no current of air under a fire and a cold one flowing over it on top will keep any fire from burning freely. To secure the best effect from the fire keep all the oven-flues and other flues free from fine ashes, and be sure that the house is well-ventilated. If coal is used never let it burn up to a white heat; keep it glowing red. Never use coal-oil, poured from a can or other vessel, to start up a smouldering fire; explosion, fire, and possibly death may be the result. If coal-oil must be used, pour some on the end of sticks of kindling, quite away from the stove, then thrust the sticks into the stove under the built-up fuel, applying a match if necessary.

Where the carefully trained child learns bad manners is a standing mystery to its watchful parents. These anxious rearers of the young are often heard propounding this query, but generally without result. Once in a while, however, out of the deep silence comes an illuminating answer.

Johnny furnished one just the other day. He had just finished a particularly toothsome dish of apple pudding, which he ate to the last morsel. Then, despite the fact that there was company at the table, he deliberately picked up his saucer and licked it clean.

"Johnny!" exclaimed his mother, after a horrified gasp, "who did you ever see do a thing like that?"

"Cats," replied Johnny.

Serial Story

"His Family."

BY ERNEST POOLE.
(Serial rights reserved by The Farmer's Advocate and Home Magazine.)

Synopsis of Previous Chapters.

The central figure in this story is Roger Gale, sixty years of age when the story begins. He had grown up in the country, but at seventeen had drifted to New York, where he finally got into business, became fairly prosperous, married, and became the father of three daughters: Edith, who, when the story opens, has been married for some years, and is the too-devoted mother of four children; Deborah, a teacher, principal of one of the big schools of the city; and Laura, the wild, capricious one, who announces her engagement to a young man named Sloane. With time, at last, to rest somewhat on his oars, Roger Gale finds himself, at sixty, a somewhat lonely widower living a life apart from that of his children. He realizes suddenly that he does not even know them. He determines to "find them out," and the story is carried on in a fascinatingly interesting way. Chapter IV gives a conversation between Deborah and her father, in which her suspicion of young Sloane as a suitable life-partner for Laura is unconsciously intimated. The father is worried, and, to distract him, Deborah takes him to a concert in Carnegie Hall, from which they go to Edith's for supper. The talk turns on the approaching marriage, and Edith says Deborah may find the house too much of a burden after Laura has gone. Roger feels that the home may be given up, and that his whole life is being upset. . . . Chapters V. and VI. tell of the busy time preceding Laura's wedding, and the birth of Edith's child. Looking into the character of his children, Roger sees, almost with a start of surprise, himself—his youthful self in Laura's burning curiosities and venturesome spirit, his later self in Edith's dropping of all outside interests and craving to keep only to her own family. He realizes the truth of his wife's words, "You will live on in our children's lives."

CHAPTER VII.

In the weeks which followed, Roger found the peace of his home so interrupted and disturbed by wedding preparations that often retreating into his den he earnestly told himself he was through, that a man with three grown daughters was a fool to show any sympathy with the utter folly of their lives. Yield an inch and they took a mile! It began one night when Deborah said,

"Now, dearie, I think you had better make up your mind to give Laura just the kind of wedding she likes."

And Roger weakly agreed to this, but as time wore on he discovered that the kind of wedding Laura liked was a thing that made his blood run cold. There seemed to be no end whatever to the young bride's blithe demands. The trousseau part of it he didn't mind. To the gowns and hats and gloves and shoes and trunks and jaunty travelling bags which came pouring into the house, he made no objection. All that, he considered, was fair play. But what got on Roger's nerves was this frantic fuss and change! The faded hall carpet had to come up, his favorite lounge was whisked away, the piano was re-tuned while he was trying to take a nap, rugs were beaten, crates and barrels filled the halls, and one whole bed-room stripped and bare was transformed into a shop where the wedding presents were displayed. In the shuffle his box of cigars disappeared. In short, there was the devil to pay!

And Deborah was as bad as the bride. At times it appeared to Roger as though her fingers fairly itched to jab and tug at his poor old house, which wore an air of mute reproach. She revealed a part of her nature that he viewed with dark amazement. Every hour she could spare from school, she was changing something or other at home—with an eager glitter in her eyes. Doing it all for Laura, she said. Fiddleticks and rubbish! She did it because she liked it!

In gloomy wrath one afternoon he went up to see Edith and quiet down. She was well on the way to recovery, but instead of receiving solace here he only found fresh troubles. For sitting up in her old-fashioned bed, with an old-fashioned cap of lace upon her shapely little head, Edith made her father feel she had washed her hands of the whole affair.

"I'm tone about h wedding there. think, fo I should simple would I she doe has onl run in a In di defendi he had such a s learned before th "Do y to you Edith b was son Laura te adays. quite s and get "She soothing mind set "Pari in three of mar to her I to me." "Wha "I'd glance v bed. "having I "Oh, "She When s I tried a little the wed married have h plain th childre find by she love Edith g of dismi "Do that?" frown. "I n plainly understa "is Deb "Wha inquired "Oh, "Deboral She at and kee But w with th vaguely own lit happine criminal Not eve "Deb "in eve "Tha "Do I Do you "No "Do "I kno That's to run a with a just wh bent, sh up to t childre Deboral Roge comfort when t take ou fully p hope di "Wit Edith's daughte tries to "She "If s if she h come to Her f down, f "It s "that w their li building the tim modern we're a "To Roger



COWAN'S COCOA

MAKES CHILDREN ROBUST.

WRITE FOR RECIPE BOOKLET.

THE COWAN COMPANY LTD. TORONTO.

on, went off in a feverish hunt for cigars, came back distractedly, joked with young girls and even started some of them dancing. The whole affair was over in no time. The bride and the groom came rushing downstairs; and as they escaped from the shower of rice, Roger ran after them down the steps. He gripped Sloane's hand.

"Remember, boy, it's her whole life!" entreated Roger hoarsely.

"Yes, sir! I'll look out! No fear!"

"Good-bye, daddy!"

"God bless you, dear!"

They were speeding away. And with the best man, who looked weary and spent, Roger went slowly back up the steps. It was an effort now to talk. Thank heaven these people soon were gone. Last of all went the ponderous aunt of the groom. How the taxi groaned as he helped her inside and started her off to Bridgeport. Back in his study he found his cigars and smoked one dismally with Bruce. Bruce was a decent sort of chap. He knew when to be silent.

"Well," he spoke finally, rising, "I guess I'll have to get back to the office." He smiled a little and put his hand on Roger's weary shoulder. "We're glad it's over—eh?" he asked.

"Bruce," said Roger heavily, "you've got a girl of your own growing up. Don't let her grow to feel you're old. Live on with her. She'll need you." His massive blunt face darkened. "The world's so damnably new," he muttered, "so choked up with fool ideas." Bruce still smiled affectionately.

"Go up and see Edith," he said, "and forget 'em. She never lets one into the flat. She said you were to be sure to come and tell her about the wedding."

"All right, I'll go," said Roger. He hunted about for his hat and coat. What a devilish mess they had made of the house. A half hour later he was with Edith; but there, despite his efforts to answer all her questions, he grew heavier an heavier, till at last he barely spoke. He sat watching Edith's baby.

"Did you talk to Laura?" he heard her ask.

"Yes," he replied. "It did no good." He knew that Edith was waiting for more, but he kept doggedly silent.

"Well, dear," she said presently, "at least you did what you could for her."

"I've never done what I could," he joined. "Not with any one of you." He glanced at her with a twinge of pain. "I don't know as it would have helped much if I had. This town is running away with itself. I want a rest now, Edith, I want things quiet for a while." He felt her anxious, pitying look.

"Where's Deborah?" she asked him.

"Gone back to school already?"

"I don't know where she is," he replied. And then he rose forlornly. "I guess I'll be going back home," he said.

On his way, as his thoughts slowly cleared, the old uneasiness rose in his mind. Would Deborah want to keep the house? Suppose she suggested moving to some titty-titty little flat. No, he would not stand in her way. But, Lord, what an end to make of his life.

His home was almost dark inside, but he noticed rather to his surprise that the rooms had already been put in order. He sank down on the living

American Steel Posts
LAST A LIFE TIME

CHEAPER THAN WOOD
AND MORE DURABLE

THEY PROTECT STOCK
FROM LIGHTNING

NO STAPLES
ARE REQUIRED

Will Not BURN OR ROT

WOOD POSTS REQUIRE HEAVY MANUAL LABOR TO SET THEM

WEEDS AND INSECTS THAT DESTROY THE CROPS CAN NOT BE BURNT FROM FENCE ROWS

Made by The Canadian Steel & Wire Co., Ltd.

There is BIG MONEY IN TRAPPING

FREE SAMPLE of Hallam's Paste Animal Bait

Enough for 2 or 3 sets—attracts all flesh eating animals—is put up in tubes (like tooth paste)—not affected by rain or snow. Economical to use, handy to carry.

Also Hallam's Trappers and Sportsmen's Supply Catalog—48 pages, English and French—showing Animal Traps, Guns, Ammunition, Fish Nets, etc. All at moderate prices.

Sample bait and catalog Free for the asking—send to-day.

Address in full as below

John Hallam Limited 506 HALLAM BUILDING, TORONTO.

when you ship your **RAW FURS**

room sofa and lay motionless for a while. How tired he was. From time to time he drearily sighed. Yes, Deborah would find him old and life here dull and lonely. Where was she to-night, he wondered. Couldn't she quit her zoo school for one single afternoon? At last, when the room had grown pitch dark, he heard the maid lighting the gas in the hall. Roger loudly cleared his throat, and at the sound the startled girl ejaculated, "Oh, my Gawd!"

"It's I," said Roger sternly. "Did Miss Deborah say when she'd be back?"

"She didn't go out, sir. She's up in her room."

Roger went up and found her there. All afternoon with both the maids she had been setting the house to rights, and now she ached in every limb. She was lying on her bed, and she looked as though she had been crying.

"Where have you been?" she inquired.

"At Edith's," her father answered. She reached up and took his hand, and held it slowly tighter.

"You aren't going to find it too lonely here, with Laura gone?" she asked him. And the wistfulness in her deep sweet voice made something thrill in Roger.

"Why should I?" he retorted. Deborah gave a queer little laugh.

"Oh, I'm just silly, that's all," she said. "I've been having a fit of blues. I've been feeling so old this afternoon—a regular old woman. I wanted you, dearie, and I was afraid that you—" she broke off.

"Look here," said Roger sharply. "Do you really want to keep this house?"

"Keep this house? Why, father!"

"You think you can stand it here alone, just the two of us?" he demanded.

"I can," cried Deborah happily. Her father walked to the window. There as he looked blindly out, his eyes were assaulted by the lights of all those titty-titty flats. And a look of vicious triumph appeared for a moment on his face.

"Very well," he said quietly, turning back. "Then we're both suited." He went to the door. "I'll go and wash up for supper," he said.

CHAPTER VIII.

It was a relief to him to find how smoothly he and Deborah dropped back into their old relations. It was good to get home those evenings; for in this new stage of its existence, with its family of two, the house appeared to have filled itself with a deep reposeful feeling. Laura had gone out of his life. He glanced into her room one night, and it looked like a guest room now. The sight of it brought him a pang of regret. But the big ship which was bearing her swiftly away to "Paris in June" seemed bearing off Roger's uneasiness too. He could smile at his former fears, for Laura was safely married and wildly in love with her husband. Time, he thought, would take care of the rest. Occasionally he missed her here—her voice, high-pitched but musical, chatting and laughing at the phone, her bustle of dressing to go out, glimpses of her extravagances, of her smart suits and evening gowns, of all the joyous color and dash that she had given to his home. But these regrets soon died away. The old house shed them easily, as though glad to enter this long rest.

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

NOV
Fo
point
narrat
peace
on the
of tho
the q
establi
cigar
some
pleas
Judith
planni
to go
had g
about
seas, t
He res
and on
in for
The w
with
his way
Roger
for in
follow
Edith
new pl
Only
it was
togeth
double
"If
said, "
you w
Roger
evening
Laura's
time.
and fou
take ab
not dis
never d
office.
The r
his offic
been so
of his e
ing. B
perturb
ployer
he had
too sla
his busi
come so
creative
so in ye
fairly b
and sch
ories we
They ha
Bruce h
office in
under B
to this
caravans
ventures,
work, flo
this buil
expressed
Nothing
a man's
did not f
elevator,
eyes pus
Roger wo
are you s
But ag
down, an
back befo
himself d
assistants
work in
tables lon
with color
were den
newspaper
little by li
how whil
of the cou
studied th
patrons, F
new Amer
Clipping
ness men
corporatio
pings, new
keeping k
affairs for
How sav
Here was
factories a
each mor
down-tow
before the
wrote, "P
the followi
each day
office ever
information
low." Th
Roger's fat
tinent. An
"Remembe
leave your

For the story of his family, from Roger's point of view at least, was a long uneven narrative, with prolonged periods of peace and again with events piling one on the other. And now there came one of those peaceful times, and Roger liked the quiet. The old routine was re-established—his dinner, his paper, his cigar and then his book for the evening, some good old-fashioned novel or some pleasant book of travel which he and Judith had read aloud when they were planning out their lives. They had meant to go abroad so often when the children had grown up. And he liked to read about it still. Life was so quiet over the seas, things were so old and mellow there. He resumed, too, his horseback rides, and on the way home he would stop in for a visit with Edith and her baby. The wee boy grew funnier every day, with his sudden kicks and sneezes, his waving fists and mighty yawns. And Roger felt drawn to his daughter here, for in these grateful seasons of rest that followed the birth of each of her children, Edith loved to lie very still and make new plans for her small brood.

Only once she spoke of Laura, and then it was to suggest to him that he gather together all the bills his daughter had doubtless left behind.

"If you don't settle them," Edith said, "they will go to her husband. And you wouldn't like that, would you?"

Roger said he would see to it, and one evening after dinner he started in on Laura's bills. It was rather an appalling time. He looked into his bank account and found that Laura's wedding would take about all his surplus. But this did not dismay him much, for money matters never did. It simply meant work in the office.

The next day he rose early and was in his office by nine o'clock. He had not been so prompt in months, and many of his employees came in late that morning. But nobody seemed very much perturbed, for Roger was an easy employer. Still, he sternly told himself, he had been letting things get altogether too slack. He had been neglecting his business again. The work had become so cut and dried, there was nothing creative left to do. It had not been so in years gone by. Those years had fairly bristled with ideas and hopes and schemes. But even those old memories were no longer here to hearten him. They had all been swept away when Bruce had made him move out of his office in a dark creaky edifice down close under Brooklyn Bridge, and come up to this new building, this steel-ribbed caravansary for all kinds of business ventures, this place of varnished woodwork, floods of daylight, concrete floors, this building fireproof throughout. That expressed it exactly, Roger thought. Nothing could take fire here, not even a man's imagination, even though he did not feel old. Now and then in the elevator, as some youngster with eager eyes pushed nervously against him, Roger would frown and wonder, "What are you so excited about?"

But again the business was running down, and this time he must jerk it back before it got beyond him. He set himself doggedly to the task, calling in his assistants one by one, going through the work in those outer rooms, where at tables long rows of busy young girls, with colored pencils, scissors and paste were demolishing enormous piles, of newspapers and magazines. And vaguely little by little, he came to a realization of how while he had slumbered the life of the country had swept on. For as he studied the lists and the letters of his patrons, Roger felt confusedly that a new America was here.

Clippings, clippings, clippings. Business men and business firms, gigantic corporations, kept sending here for clippings, news of themselves or their rivals, keeping keen watch on each other's affairs for signs of strength or weakness. How savage was the fight these days. Here was news of mines and mills and factories all over the land, clippings sent each morning by special messengers down-town to reach the brokers' offices before the market opened. One broker wrote, "Please quote your terms for the following: From nine to two o'clock each day our messenger will call at your office every hour for clippings giving information of the companies named below." The long list appended carried Roger's fancy out all over the continent. And then came this injunction: "Remember that our messenger must leave your office every hour. In infor-

Cream of the West Flour

— the hard wheat flour that is guaranteed for bread



Of uniform strength and quality for high-rising bread, delicious biscuits, etc. Your recipe comes out right always.

Ask for it at Your Grocer's

The Campbell Flour Mills Co., Limited
affiliated with
Maple Leaf Milling Co. LIMITED
Toronto Ontario
A COAST TO COAST SERVICE 20,000 BBLs. DAILY



84c. each
3 for \$2.40

Full size of Hdks., 10-in. square, with lace edge 1-in. deep.

BUCKINGHAMSHIRE HAND-MADE LACE HANKIES

Made in a complete square with corner properly turned on the lace pillow; the lace wears and retains its beauty for many years.

A pretty assortment of edgings, Bucks Hand-made in widths of 1/4-in. to 3-in., from 20c., 25c., 30c., 60c. per yard. Collars, Yokes, Appliqués, etc., all worked by the Village Lace-makers.

Write for sheet of designs, post free. Any quantity can be sent to any address given, in the British Isles, or abroad, on receipt of remittance covering the amount.

MRS. ARMSTRONG'S LACEMAKERS
Olney, Bucks, England

SEEDS

We are in the market for Alsylke, Red Timothy and Sweet Clover, also all grain of good sample. Send samples and we will quote our best price f.o.b. your station.

GEO. KEITH & SONS
Seed Merchants since 1866
124 King St. East, - - Toronto

Please mention Advocate

mation of this kind every minute counts."

Clippings, clippings, clippings. As Roger turned over his morning mail, in spite of himself he grew absorbed. What a change in the world of literature. What a host of names of scribblers, not authors but just writers, not only men but women too, novelists and dramatists, poets and muckrakers all jumbled in together, each one of them straining for a place. And the actors and the actresses, the musicians and the lecturers, each with his press agent and avid for publicity "fame!" And here were society women, from New York and other cities, all eager for press notices of social affairs they had given or managed, charity work they had conducted, suffrage speeches they had made. Half the women in the land were fairly talking their heads off, it seemed. Some had been on his lists for years. They married and wanted to hear what was said in the papers about their weddings, they quarreled and got divorces and still sent here for clippings, they died and still their relatives wrote in for the funeral notices. And even death was commercialized. A maker of monuments wanted news "of all people of large means, dead or dangerously ill, in the State of Pennsylvania." Here were demands from charity bodies, hospitals and colleges, from clergymen with an anxious eye on the Monday morning papers. And here was an anarchist millionaire! And here was an insane asylum wanting to see itself in print!

With a grim smile on his heavy visage, Roger stared out of his window. Slowly the smile faded, a wistful look came on his face.

"Who'll take my business when I'm gone?"

If his small son had only lived, with what new zest and vigor it might have been made to grow and expand. If only his son had been here by his side.

To be continued.

Bill's Sugar and Syrup
Wasn't Up To Much

That's what his neighbors said, they were right too, but there were reasons, this sap was not fresh enough or clean enough, his boiling outfit was out-of-date and he scorched the whole batch. He did a lot of hard work with poor results. It is all a question of proper outfit. With a



GRIMM CHAMPION
Outfit

In your maple grove you are sure of making the best possible syrup and sugar. Do it cleanly and quickly and get more money out of it. Scrap your old outfit and make something worth while out of your sugar bush. We can help you a lot if you write us.

The Grimm Mfg. Co.
60 Wellington Street, Montreal, Que.

Crate Fattened Poultry

We are open for shipments of Crate fattened poultry. Highest market prices paid according to quality.

HENRY GATEHOUSE & SON

Fish, Oysters, Game, Poultry, Eggs and Vegetables.
344-350 West Dorchester Street, Montreal

WANTED Crate Fed Chickens
Dressed

Also
Large Hens Alive or Dressed

Write for price list.

WALLER'S 702 Spadina Ave. TORONTO

Put something by for a sunny day!

WHEN the horizon brightens with an opportunity that may lead to your success and prosperity, do not let it find you unready to take it on.

Through lack of capital, many men have been forced to see their opportunities pass—in many cases all that was required was a very small sum to invest.

A few dollars saved each week or month, deposited to your credit in a savings account at The Bank of Toronto, with the interest it earns, will soon accumulate to a substantial sum. Have it ready when the call comes for your venture.

THOMAS F. HOW
General Manager

Your savings account is invited.

THE BANK OF TORONTO

Current Events

The Parliament of Canada was prorogued on Nov. 11th.

The Quebec Legislature will meet early in December.

The members of the Drury Cabinet were sworn in at Toronto on Nov. 14.

A handsome Soldiers' Memorial Hall, the first completed in Canada, was opened at Cobden, Ont.

Hart House, a memorial of the late Hart Massey, was formally opened and presented to the Toronto University, by members of the Massey family, on Armistice Day.

Packs of wolves, in unusual numbers, are roaming about near the settlements in the far North West.

An annual clinic, conducted by some of the highest medical and surgical authorities in America, was held in Hamilton Ontario, last week.

The Department of Agriculture in Quebec has procured a number of tractors which will be sold to farmers at cost price.

On Nov. 10, after a stormy passage through the Senate, the two Prohibition Bills were signed by the Governor General.

The degree of Master of Household Science was conferred upon Miss Edith Rayside, (a graduate of Queen's '96) by Toronto University.

Several lives were lost by the wrecking of the H. E. Runnels and John B. Owen, on Lake Superior, during the recent storm.

W. U. Harvey, nominated by the Farmers and endorsed by the Liberals, was elected by acclamation to the seat vacated in the Saskatchewan Legislature by Hon. W. R. Motherwell, to contest the riding in the Federal Legislature.

On Nov. 11th, obeying the mandate of the U. S. Federal Court, the miners' strike was cancelled, but negotiations for a new wage agreement will be undertaken.

The Prince of Wales was given a great reception in Washington, where he visited the President in his sick-room. Before leaving for a three-days' rest in a Southern

Do Your Banking by R. F. D.



Make the mail your messenger; and save yourself the long rides to town.

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

Write the manager to tell you all about this convenient plan of **Banking By Mail**—or call in and have it explained, the next time you are town.

THE MERCHANTS BANK

Head Office: Montreal. OF CANADA Established 1864.

With its 131 Branches in Ontario, 42 Branches in Quebec, 1 Branch in New Brunswick, 2 Branches in Nova Scotia, 30 Branches in Manitoba, 44 Branches in Saskatchewan, 74 Branches in Alberta and 9 Branches in British Columbia, serves rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.

STORM DOORS

STORM SASH

The season is at hand when you will need these. Get them before the frost comes and the wintry winds begin to blow. We can supply you. Send us your sizes NOW.

Hot Bed Sash in Any Quantity.

GET OUR PRICES.

A. COATES & SONS

PLANING MILL, BURLINGTON, ONT.

'Phone 66



TWO DOLLARS will only buy to-day what One Dollar bought ten years ago.

Plan to carry \$5,000 insurance

Write to-day for specimen policy and literature

Excelsior Life Insurance Co.

Head Office: Toronto, Ontario

summer resort, the Prince placed a wreath on the tomb of Washington.

The U. S. Senate, by a solid lineup of Republicans, reinforced by four Democratic voters, refuses to adopt the League of Nations Covenant without modification of Article 10, which pledges America to help European nations in case of necessity. On his western tour, suddenly ended by his collapse, President Wilson asserted that to remove this article would be to cut the heart out of the Covenant, and result in rejection of the Treaty, which stands upon the League of Nations.

William E. Johnson, head of the small band of United States workers now in England in the interests of prohibition, was mobbed and beaten in London, chiefly by a band of medical students, before rescued by the police.

Countess Leo Tolstoi, wife of the great Russian writer, died at Yasnaya Poliana. She was the mother of 16 children.

Some Filipino Proverbs.

Lord Bacon said, "The genius, wit and spirit of a nation are discovered by its proverbs." The following have been handed down by mouth from generation to generation of the Filipino people. Most of them suggest that human nature is pretty much the same on both sides of the globe.

BRAVERY—A hero is braver for his wounds.

It is too late to withdraw when you are already wounded.

CAUTION—A fish is caught by the mouth.

Repentance never comes first.

Courage is of two sorts; one goes forward, the other retires.

Haste creates delay.

There is a snake in every jungle.

CHARACTER—Which ever side a tree leans, there it falls.

'Tis easy to be born, 'tis hard to be a man.

He who is raised in ease is usually destitute.

CHOICE—He who is hard to suit will choose the worst.

COMPENSATION—You laugh to-day, I laugh to-morrow.

COUNSEL—He who despises counsel is on the way to misfortune.

Whoever believes everything said has no mind of his own.

DISDAIN—You may dislike, but never despise.

FAULT-FINDING—The fault-finder has the biggest faults.

FOOLS—A wise man's joke is believed by a fool.

Fools earn for the wise.

It is foolish to argue with a fool.

FORESIGHT—Strength yields to plan.

Working early is better than working hard.

FORGETFULNESS—He who is happy is forgetful.

FRIENDSHIP—Let us fight, then be friends.

GOOD DEEDS—Good deeds are more precious than gold and silver.

Kindness is a great capital.

GRATITUDE—Kindness is with kindness to be paid, not with gold and silver.

HOME, LOVE OF—The pain of a finger is the suffering of the whole body.

HONOR—Even the poor love honor.

Break your head, but not your word.

HOPE—It may be mere mud, but above it is a piece of heaven.

I should not grieve over my misfortune, for what muddy water did not become clear?

HOSPITALITY—Though my house is small, my heart is large.

INDUSTRY—A sleeping shrimp is carried away by the current.

A lazy dog does not get even bones.

Work put off ends in nothing.

He who is always preparing to do something, never does anything.

MERIT—The quality of gold is known by rubbing it against stone.

MODESTY—He who is high suffers a great fall.

The fly that rests on the back of a carabao (water buffalo) thinks it is taller than the carabao.

Boastfulness drives away wisdom.

Do not brag before landing the fish.

PERSEVERANCE—A thing is near, though far, if you want it.

If you want eggs, put up with the cackling of the hen.

If yo
will ne
Prim
superi
dignity
RIGI
a clear
RUM
shout.
SHRI
tend to
TEM
will be
enough
A wa
A so
THRI
spendi
TRU

Louis
South
great h
of his l
love of
sheep;
in natu
spite of
the adv
highly-

He w
so that
but aln
of the
early a
First V
Like Jo

Boers

Kruger

opposed

dent's c

bitter a

Altho

Moder

his favo

every b

the Em

master

When

into it

compre

From t

policy,

sent his

soon wa

course,

vance o

Lukas

his nerv

took ov

soon co

stition

equalled

and Spi

His for

would h

the old

fensive

their on

Tugela

saved h

he orga

When

1900 the

less, Bo

harasse

Lord R

useless

actions

that Ge

foes as

either b

English

lies abo

Botha b

his rema

know th

under B

that foll

ciled by

and the

When

their gre

responsi

Dutch

chiefly

policy fr

He ne

had tak

British

British

sense to

not stan

both as

country

He was,

viction,

convicti

and colle

down wit

flag ques

the Prince placed
omb of Washington.
ate, by a solid lineup
enforced by four Demo-
uses to adopt the League
enant without modifica-
, which pledges America
an nations in case of
western tour, suddenly
lapse, President Wilson
move this article would
rt out of the Covenant,
jection of the Treaty,
n the League of Nations.
Johnson, head of the
ited States workers now
interests of prohibition,
d beaten in London,
d of medical students,
the police.

If you are afraid of every dog bark, you will never reach your destination.
PRIDE—Do not be too near your superiors, lest they trample upon your dignity.
RIGHTOUSNESS—He who deviates from a clear path may lose his way.
RUMOR—A whisper is louder than a shout.
SHREWDNESS—If you want to fool, pretend to be a fool.
TEMPTATION—A piece of green wood will burn if placed near the fire long enough.
A wanderer will sooner or later slip.
A soft snare has a tight hold.
THRIFT—Easy earning means quick spending.
TRUTH—A liar loves to take an oath.

The Late General Botha.

Louis Botha was in all things a typical South African. He was typical in his great height and frame, in the stoutness of his later years, in his veldt-craft, in his love of the open and of horses, cattle and sheep; he was typical also in his mind; in natural sense and shrewdness, which in spite of his apparent simplicity gave him the advantage in dealing with many a highly-cultured European.

He was born in 1863, it is said in Natal, so that by birth he was a British subject, but almost all his life he was a Burgher of the South African Republic. At an early age he became a member of the First Volksraad, representing Bryheid. Like Joubert and a good many other Boers of the better class, he opposed Kruger's narrow and fanatical policy. He opposed also the methods of the President's clique. He never belonged to the bitter anti-British party in South Africa.

Although he took part in politics as a Moderate, his favorite study was war and his favorite character Napoleon. He read every book he could obtain on the life of the Emperor, and by these early studies mastered the principles of war.

When war was at last declared he went into it with a greater zeal and a wider comprehension than General Joubert. From the very first he urged a forward policy, and it was to him that Kruger sent his telegram: "May the Vierkleur soon wave over a free harbor," meaning, of course, the port of Durban. In the advance on Dundee he at first acted under Lukas Meyer, but when that General lost his nerve and deserted his army, Botha took over command. His generalship soon conquered the Boer's almost superstitious distrust of youth, which almost equalled that of the British, and Colenso and Spion Kop proved his generalship. His forward policy, opposed by Joubert, would have led the Boers to the sea, but the old man insisted on that fatal defensive policy which lost to the Boers their only chance of success. When the Tugela Heights were captured Botha saved his forces by the skill with which he organized the retreat.

When Joubert died in the spring of 1900 the war was already lost. Nevertheless, Botha reorganized the army and harassed, although he could not stop, Lord Robert's advance. It would be useless to recount the various guerrilla actions which followed. Sufficient to say that General Botha won the respect of foes as well as friends. He never showed either brutality or bitterness, and when English traitors slandered their race with lies about the concentration camps, Botha brought them to confusion with his remark: "We are only too glad to know that our women and children are under British protection." In the peace that followed General Botha was reconciled by the statesmanship of Lord Milner and the tact of Joseph Chamberlain.

When the Liberal Government made their great gamble of giving South Africa responsible government, and giving the Dutch an electoral majority, it was chiefly General Botha who saved that policy from disaster.

He never for a moment forgot that he had taken the oath of allegiance to a British King, and he was proud to wear a British General's uniform. His clear sense told him that South Africa could not stand alone, and that its prosperity both as an agricultural and industrial country depended on the British Empire. He was, therefore, by intellectual conviction, a loyal British subject, and this conviction he shared with his great friend and colleague, General Smuts. He laid it down with courageous firmness that "the flag question was settled for ever." As

chief Transvaal delegate to the Union Convention he played, as always, a moderating part, and he was an honored and appreciative guest of this country at the Colonial Conferences of 1907.

His Moderate views were opposed to the racial fanaticism and Republican bitterness of General Hertzog, who led the Nationalist movement and who was General Botha's most redoubtable opponent in South African policy. This opposition led to a cordial co-operation with the British Unionist Party in South Africa. There was more than political interests between General Botha and Dr. Jameson. There was a close and cordial friendship. These two trusted and understood each other and worked in loyal comradeship for the good of South Africa and the British Empire. There was never a more remarkable case of co-operation between a Prime Minister and a leader of the Opposition.

When war broke out General Botha found himself confronted by a very dangerous situation. The Boer Nationalists, fired by General Hertzog's eloquence, and not understanding the subtlety which distinguished between disloyal talk and disloyal action, took up arms in a desperate attempt to use the British embarrassment to establish the independence of South Africa. This movement was supported by De Wet, who had a deep personal grudge, inspired, it is said, by jealousy, against General Botha, and by General Beyers, who was then in command of the Union Forces, and who is said to have been seduced from his loyalty, when he visited Europe, by the German Emperor himself.

It is unnecessary here to describe the magnificent skill and energy with which General Botha and General Smuts suppressed the rising. It was a very formidable movement. The treachery of General Beyers had placed a large part of the available rifles in the hands of the rebels, and, as they were numerically strong, if they had been allowed to concentrate the position would have been very dangerous. But Botha and General Smuts never allowed the rebel plans time to fructify. By a skilful use of the railway they kept them continually on the move, and so disposed their forces that the rebels were defeated by sheer strategy and almost without a battle.

Having crushed the rebellion, he took a force of between 40,000 and 50,000 men over a waterless country with an almost incredible speed. In less than a week he had marched 120 miles. His infantry marched 250 miles on the heels of his cavalry, and were only three days behind. The forces also made skilful use of the motor-car, and thereby prevented the union of the rebels and the Germans.

Victory was quick and complete, but it had the unfortunate effect of overstraining the General's strength. His sedentary life after the Boer War had unfitted him for the strenuous incidents of the campaign in German South-West Africa, the most waterless and barren region of South Africa.

General Botha's greatest achievement, however, was to maintain South African sentiment against the constant attempts of the enemies of England to stir up trouble between the races, black and white, and between Dutch and English. In one of his speeches he said that the plot against South Africa, if he told it, "would make the hair of South Africans to rise on end." As a matter of fact, he knew, and it can now be stated, that the Germans had prepared a force of some 20,000 reservists in South America, and had intended, if they had succeeded on the sea, in transporting them to German S.-W. Africa to use that country as a base of operations for the conquest of the Union.

Throughout the years that followed General Botha maintained a position in South Africa, while General Smuts represented the Union Government in Europe. The combination of General Botha's steadiness and General Smuts' skill was perhaps one of the most remarkable phenomena in the history of the war. Throughout, General Botha's speeches show his unswerving grasp of the situation. He knew the great ambitions and designs of the Germans, and he knew also that the fortunes of South Africa were wrapped up with the British Empire. His visit to this country in December of 1918 is too recent to require description here. In his enfeebled state of health his indomitable spirit never failed, and his commonsense and sanity were of the greatest value to the counsels of the

Auction Sale of
30 PURE-BRED HOLSTEINS

At the Arlington Yards, WOODSTOCK, on

Thursday, November 27th, at 1 o'clock p.m.

Included in sale is a cow closely related to Madame Posch Pauline, a sister to a thirty-pound three-year-old, daughters of twenty-pound cows, and others just as good. There are twenty cows and ten yearling heifers. Also three bulls with good official backing. The herd sire is a son of a 21.93-lb. junior 3-year-old, and a son of Prince Colanthus Abbecker. These are all good milkers and heavy producers.

WM. PULLIN, Auctioneer

BUD. IRVING, Clerk

F. A. FICHT & SONS, Proprietors.

Entries close November 24th for the
TENTH ANNUAL
Toronto Fat Stock Show
December 11th and 12th

Do not put off until the last day. You may be too late. Mail entries to-day.

Entry forms and premium list on application.

Box 635 - - - West Toronto

EARN MONEY IN SPARE TIME

Boys and Girls, living in the country, often want some way of earning money in spare time.

HOW ARE YOU GOING TO DO IT?

Do you know, that The Farmer's Advocate and Home Magazine makes a standing offer to subscribers and members of their families to act as local agents in securing New Subscribers to the paper?

Our local agents receive a generous commission for every new name sent in and a bonus each time a list of ten names is completed.

The Farmer's Advocate and Home Magazine

Is so well known, and Canadian farmers have so much confidence in it, that the work of securing new subscribers is easy and pleasant.

You can do the work whenever and wherever you like. Use your spare moments, and go to see those living near you who do not take the paper.

IF YOU WANT EXTRA MONEY AND ARE WILLING TO DO YOUR PART

Fill out the attached coupon and send it to us as soon as possible.

Coupon THE WILLIAM WELD CO., LTD. LONDON, ONTARIO

Gentlemen:-

I am willing to begin right away to earn extra money by sending in the names of new subscribers to The Farmer's Advocate and Home Magazine.

Name.....Age.....

Address.....

Name of subscriber.....

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

The Feed that Makes'em Fat

The value of Linseed Oil Cake Meal in live-stock feeding cannot be overestimated. A ton of ground Linseed Cake contains three times the digestible protein or flesh-making elements contained in a ton of corn, while the manure value is more than three times that of corn. One dollar invested in Maple Leaf Oil Cake Meal will bring you thrice as many pounds of flesh-making feed for your cattle as it would invested in grain feed. Cows give more milk, calves grow faster, hogs gain weight and horses pick up smart when fed rations of Maple Leaf Oil Cake Meal. It is absolutely pure; no adulteration.



Maple Leaf Oil Cake Meal

In England a farmer gets cheaper rent if he uses Oil Cake Meal because the manure so greatly enriches the land. By using it in Canada the farmer gets bigger profits in live-stock and in land improvement too. Decide now on the regular use of Maple Leaf Oil Cake Meal and watch results.

Put up in 100 lb. Bags; Shipped in Ton and Half-Ton Lots.

The CANADA LINSEED OIL MILLS, LIMITED
TORONTO - MONTREAL

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at four 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 60 cents.

AFRICAN GEESSE, BOURBON RED TURKEYS, White African Guineas, Muscovy, Indian Runner, Wild Mallard Ducks, Barred Rock, Rhode Island Red Cockerels. Mrs. John Annesser, Tilbury, Ont.

BARRED ROCK COCKERELS, THREE each. From best laying strains in Ontario. Buy early and get your pick. J. F. Worden & Son, Picton, Ont. R. R. 8.

FOR SALE—CHOICE COCKERELS, BRED from heavy-laying, non-setting hens in the following varieties: Andalusians, Brahas, Anconas, Orpingtons, Rocks, Leghorns, Wyandottes; also Pekin and White Runner ducks and drakes, African, Emden, Toulouse and China geese. M. Shantz, Ayr, Ont.

FOR SALE—PURE-BRED WHITE LEGHORN and White Wyandotte Cockerels, bred from prize-winning stock, \$3.00 each. Esra Stock, Woodstock, Ont.

FOR SALE—ROSE COMB BROWN LEGHORN bred-to-lay. Males and females at most reasonable prices. Galloway & English, Ingersoll, Ont.

HEAVY BRONZE TURKEYS FROM PRIZE stock. R. G. Ross, Glanworth, Ont.

MAMMOTH BRONZE TURKEYS—A FEW young toms and hens to sell. I can furnish pairs not akin. At Guelph, nineteen-sixteen and seventeen, I won as many prizes as all the exhibitors in Bronze turkeys. Nineteen-eighteen winning five firsts and six seconds in six classes, also special for best male and female in Bronze turkeys. Also a few young ganders and geese in Africans and Emdens, bred from Guelph winners. Geo. Neil, Tara, Ont.

PEDIGREED COCKERELS, BARRED ROCKS, \$5.00, from 260 and 254 egg hens. Ten pullets laid 2034 eggs in eleven months. F. Coldham, Box 12, Kingston, Ont.

ROSE-COMB RHODE ISLAND REDS, COCK-ERELS—Guld's strain, three-fifty each. Alex. McKinney, Erin, Ont.

TURKEYS FOR SALE. WELL-BRED Mammoth Bronze Turkeys, good healthy stock, fine specimens. C. Lorne Liddle, R. R. No. 2, Leamington, Ont.

WHITE WYANDOTTE COCKERELS LARGE early hatched birds bred from our heavy laying Guelph winners \$5 each. R. Trivett, Newmarket Ont.

Cockerels For Sale

A limited number of good growthy O.A.C. Bred-to-Lay Rock Cockerels for sale from the School Fair Breeding Stations. Three Dollars each. Satisfaction guaranteed or money refunded on return of bird.

R. SCHUYLER - Paris, Ont.

Live and Dressed Poultry Wanted.

We can handle any quantity of good poultry, either alive or dressed and will pay top prices. We prefer turkeys, ducks and geese dressed, and chickens and hens either alive or dressed. It will pay you to sell your poultry to G. A. MANN & CO. 78 King St. London, Ontario.

White Wyandotte Cockerels

Massive 7 to 9-lb. birds from bred-to-lay hens, \$5.00 and \$10.00 each. Mated in pairs or trios if desired, with young hens that will Hogan test 175-230 eggs per year; pairs \$8.00 and \$15.00. K. C. McDIARMID, Marionville, Ont.

WANTS & FOR SALE

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock. TERMS—Four 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 60 cents.

COLLIE PUPS, PEDIGREED, SIRE BY imported Buccleuch Specialist Dam Elgin Colleen. Arthur Gilbert, Mount Elgin, Ont.

FERRETS FOR SALE AT \$4.50. APPLY R. C. Whaley, Brownsville, Ont.

ONE HUNDRED ACRES, COUNTY OF Perth, Township Northeast Hope, Lot twelve, Concession three. Seventy-five acres, clear and under cultivation, eighteen acres hardwood bush, eight acres stump land, bank barn, stone dwelling, excellent land. Farm may be purchased with or without season's crop, stock and implements. For particulars apply on farm or to A. W. Hamilton, Lucknow, Ont.

WANTED—TO PURCHASE FARM, WITH or without stock and implements. Write John Nichol, care of Merchants' Bank, Sherbrooke, Que.

WANTED—WORKING MANAGER—300-acre stock and grain farm, situated four miles south of Kerwood, Ontario. Must be practical, efficient and reliable, and show good reference. Charles Murby, Room No. 105 Exchange Bldg., Union Stock Yards, Chicago, Ill.

150 ACRES OF CHOICE LAND IN NEW Ontario, 40 acres cleared, 50 acres burned, chopped and seeded; House 18 x 30, Barn 40 x 56, Implement Shed 23 x 40; suitable for mixed farming or growing seed potatoes; railway switch on place; close to school, church and store. Price and particulars apply: Ernest Winlaw, Healslip, Ont.

Allies, especially as regards British Empire problems. It is said to have been at his suggestion that General Hertzog was received by Mr. Lloyd George, and Mr. Lloyd George's speeches obviously bear the mark of Botha's statesmanship.

He left this country a worn-out man. Between Plymouth and Madeira he had a very bad heart attack, from which he never fully recovered, and although he continued to do his duty and support his party and his cause on his return to South Africa it was soon obvious that he could not live very long. His death is one of the greatest losses that the British Empire could possibly sustain at the present moment.

The future of South Africa is perplexed and dangerous owing to the ceaseless activities of the enemies of the British Empire, and we can only hope that the loyalty of the party which General Smuts now leads, and the British acting together, will defeat the dangerous propaganda of the Nationalists, who are backed now, as always, by German intrigue.

In private life he was happy on his farm and with his family; it was not, however, the simple patriarchal peasant life of a Kruger or a Joubert. For General Botha was a cultivated man, and his wife is a charming, clever and well-read woman. It was the home, therefore, not of a peasant but of a gentleman. In his disposition he was kindly, humane, and good-humoured. He loved good company, and delighted in the society of cheerful companions like Sir Starr Jameson, Sir Thomas Smartt, and Sir Percy FitzPatrick. When in England he was happiest when staying at the country house of his friend, the Marquess of Winchester. If the narrower and more fanatical Boer frowned at these friend-

ships, the average Dutchman, the common-sense normal South African, knew that he could always trust Botha to be staunch to the Dutch agricultural interest.

One of General Botha's last achievements in connection with the world war was to secure reasonably good treatment for the Overseas cadets who were in Officers' Training Corps or Officers' Cadet Battalions in this country when the Armistice was signed. All these men were on their way to commissions in the Imperial Forces. Many of them had seen service overseas; some had come to England holding temporary commissions in Colonial forces; others had been sent here with recommendations for commissions from the officers under whom they had served in one or other of the African campaigns. The proposal of the War Office was to send all these fine young fellows home without the "stars" which most of them had well earned, and to which all of them aspired. Our authorities were so sadly lacking in imagination that they did not seem to realize what harm might be done to the Empire if thousands of the best class of young soldiers were allowed to go to their distant homes with the feeling that they had been ungenerously treated by the Mother Country. The matter was brought to General Botha's attention. He saw at once what a blunder was being made, and insisted that every Overseas Cadet should receive a commission before leaving England. The officials concerned pointed to the "regulations," but General Botha was not a man to be frightened by red tape. There was a short but sharp contest between the Union Premier and Whitehall officialdom. General Botha won, and the Cadets went home rejoicing, each with a second lieutenant's star to display to his admiring friends at home.—World Wide.

Beef Production in England.

"Cattle and the Future of Beef Production in England," which has been written by K. J. J. Mackenzie, M.A., the Reader in Agriculture in the University of Cambridge, is a work that cannot fail to attract much attention, and no little criticism, at the hands of British stock breeders and stock feeders and rearers. This is clearly recognized by the author, who tells us, in his preface, that he knows, only too well, that much of my text will strike a blow at practical men in that which, after their honor, they cherish most—their prejudice." We do not agree with the main conclusion he arrives at—and which is the logical conclusion of his main arguments—which appears to be that we should utilize the powers of our dual-purpose cattle to the full, and only prepare them for the butcher for beef after their dairy utilities have been exploited to the full. This means the production of inferior beef at home, and depending upon imports for the beef of high quality to which the people of this country have been hitherto accustomed. This, at any rate, is how we read the author's rather round-about way of putting this. "At a price," he tells us, "the carcasses of the descendants of our much-boasted pedigree stock will be returned to us in admirable condition in the freezers of ocean-going ships. Though the amount of soil awaiting the land-robbler is limited, there is enough of it left to last until Europe has recovered from this war. . . . A nation accustomed to prime meat is more than likely to go on eating it while it can, even though it be shown that its place of origin is insecure." If we may be permitted to say so, the underlying fallacy of the work is that it does not recognize that there is much farming, not only in this country but all over the world, which must be judged, not by ideals set up by scientists—often impractical men—but by the available conditions under which that farming is carried on. All farming which does not come up to the scientific ideal, or which does not get all the produce out of the land which would be perfectly possible under more available favorable conditions, is not "land-robbing," but may be in the highest degree meritorious. There is a second point to which an allusion may be made. Quality of produce has been one of the greatest aims of the soundest agricultural reformers for many years past, and because, in beef making as in other matters, there have been abuses in this—animals too fat, for example, that is no

reason why the ideal of quality should not in itself be a good one and worthy of taking a pride in. We should prefer to describe the production of high-quality beef—and making the best of our "dual-purpose" cattle on the beef side as well as on the milk side—as a justifiable pride rather than "prejudice." And in the management and best use of our cattle stocks there is one condition absent that makes any comparison with continental practices very inopposite. On the continent cattle are still largely used for draught purposes—a use that has long, and happily, been discarded in this country. The young bulls which would be used largely for this purpose can, therefore, be best utilized by steering and converting into high-quality beef in the quickest and most economic manner. ALBION.

Horse Classes at Toronto Provincial Winter Fair.

We are informed by the Secretary of the Ontario Provincial Winter Fair that several changes have been made in the prize list for horses and additional cash prizes offered. The changes are as follows:

The cash prizes offered in the various classes for horses has been increased by several hundred dollars for the 1919 Fair. In addition several important changes have been made in the prize list as to classes and sections.

A class for Belgian stallions any age, has been added and in the following breeds—Percheron, Hackney, Standardbred and Thoroughbred there are now four classes for stallions instead of three as formerly. The various sections now read:

Section 1, stallion foaled previous to January 1st, 1916; section 2, stallion foaled in 1916; section 3, stallion foaled in 1917; section 4, stallion foaled on and after January 1st, 1918.

The Ontario Horse Breeders' Association is offering special prizes of 1st, \$6; 2nd, \$4 to be awarded to Ontario breeders of first and second prize winning animals in all Horse Classes.

Walker House Trophy. A handsome silver trophy, to be competed for annually at the Ontario Provincial Winter Fair, and to be given for the "Grand Champion, Canadian-bred, heavy draught, 2 years and over," recorded in the exhibitor's name in the National Live Stock Records, Ottawa. This trophy is to be given alternately to males and females and in 1919 will be given for the Grand Champion Stallion. A miniature of this cup to be given to the winner each year.

Bright Special. A cash prize of \$25 will be given to the "Grand Champion, Canadian-bred, heavy draught, 2 years and over," recorded in the exhibitor's name in the Canadian National Live Stock Records, Ottawa, to be competed for alternately by males and females, and to be given in 1919 for the Grand Champion Mare.

W. A. Dryden, of Brooklin, writes: "I have had a good trade for my Shropshire rams, both in imported and lambs of my own breeding. All of the imported rams are away except two of the best which I reserved for use upon the splendid lot of imported ewes which I am now offering for sale. These ewes are an exceptionally well-bred, typical lot of Shropshires, and are the right kind for anyone wishing to add fresh blood to their flock or for the foundation of new flocks. I shall be glad to hear from anyone contemplating a start in the sheep business and will quote close prices. Any one who buys these in-lamb ewes should be able to grow their own flock header for another season."

A bishop has suggested prayers for the new voters. Perhaps he agrees with us that a good many of the old ones are past praying for.

She knew the symptoms—"Madam," announced the new maid, "your husband is lying unconscious in the reception hall, with a large box beside him and crushing a paper in his hand." "Ah," cried her mistress in ecstasy, "my new hat has come."

ideal of quality should be a good one and worthy in. We should prefer production of high-quality beef the best of our "dual" on the beef side as well as a justifiable pride in "breed." And in the best use of our cattle in condition absent that comparison with continental opposite. On the one side still largely used for a use that has long been discarded in this young bulls which would for this purpose can be utilized by steering and high-quality beef in the most economic manner.

OXO CUBES
Ready in a moment
A cup of hot OXO every day is splendid safeguard against colds and chills
A CUBE TO A CUP
This 10c., 25c., 50c., 1.15, 2.25



THE MOLSONS BANK
Incorporated in 1855
Capital and Reserve, \$8,800,000
Over 100 Branches

Open an account with The Molsons Bank and pay your accounts by cheque, thereby avoiding the trouble and expense involved in the frequent transfer of cash.

My Book How to Break and Train Horses
FREE

BIG MONEY IN "ORNERY" HORSES

MY free book will amaze you. See the big money that is being made by those I taught my famous system of horse breaking and training! Wild colts and vicious, unmanageable horses can be picked up for a song. By my methods you can quickly transform them into gentle, willing workers and re-sell them at a big profit. You can also earn fat fees breaking colts and training horses for others.

Write! My book is free postage prepaid. No obligation. A postcard brings it. **Write today.**
Prof. JESSE BEERY 4371 Main St., Pleasant Hill, Ohio

More Light Than 20 Oil Lamps
AT LAST—the light of lights—A beautiful lamp that lights with common matches just like oil lamp, but makes and burns its own gas from common gasoline, giving a brilliant, steady, restful, white light of 900 candle power.
Most Brilliant Light Made
Brighter than the brightest electricity. More light than 20 oil lamps. Cheapest and best light made. Costs less than one-third of a cent per hour. Safer than the safest oil lamp. The

Coleman Quick-Lite

No wicks to trim—no globes to wash. No dirt, no grease, no glare or flicker. Absolutely safe. Fuel can't spill—no danger even if tipped over. **Guaranteed 5 years—will last a lifetime.**
If your dealer can't supply, address nearest office for Catalog No. 10
Rochester Lamp Co., Ltd.
120 Church St., Toronto



When writing advertisers please mention Advocate

English Live-Stock Prices.

The fine price of 720 guineas was paid at a Hereford cattle sale, at Glasbury-on-Wye, for the six-year-old "White-face" cow, Oyster Gipsy, one of the noted Hampton Court blood belonging to W. H. Jones, Llanthomas, Llanegon, Hay, Hereford. The Oyster family has bred more winners than any other modern blood line.

Two herds of 87 non-pedigree dairy Shorthorns, owned by Arthur Hiscock, Motcombe, Dorset, have been sold for £4,635 15s., or an average of £53 5s. 8d. apiece. One cow made £100 (top price) and others fetched £73 to £84. Dairy cows of Shorthorn ancestry, and not in the Herd Book, are everywhere realizing £80 down to £56 in our English weekly commercial markets.

Michaelmas Sheep Fairs are an institution in England. Prices for well-bred rams of nearly every breed remain very high and breeding ewes are still costly to buy. C. B. Warner sent 22 Lincoln shearing rams to Malton Fair, and they realized £335 8s. 6d., the highest price being 36 guineas. J. Cranswick received 35 guineas for one, and realized £528 4s. for 24 head. Major Behren's 20 Lincoln rams made £213 13s. 6d.

Leicester rams sent by J. F. Thompson to Hull Fair made up to 20 guineas; Mr. Nightingale got 19 guineas, and T. C. Jackson, 11 guineas. W. F. Woods' Kent, rams realized 41 guineas to 7 guineas, and averaged £13 4s. 4d., at Sittingbourne Fair. Ashley Stevens' 38 rams sold at 44 guineas to 8 guineas, and averaged £13 2s. 6d.; Lord Harris' 14 averaged £8 15s. 6d., and W. F. Clark's, £6 6s. 9d.

The noted flock of Border Leicester sheep, the property of Messrs. Foulder, Oakbank, has been sold for high prices: 81 rams made £55 each; four-crop ewes, £12 13s. each; three-crop ewes, £18 4s. 9d. apiece; two-crop ewes, £19 9s. each; and one-crop ewes, £20 18s. 6d., a ewe of this last-named age fetching £53.

For 71 head of Berkshire pigs, sold at Suddon, Wincanton, Julius Fricker averaged £29 5s. 10d. apiece, or a total of £2,067 11s. Some 20 old pigs averaged £60 12s., and 51 of this year's crop averaged £17 apiece.

Working, farm, in-foal, Shire-bred mares have fallen in price in some North country marts, where they were very high in 1917-18. Last week they realized 96 and 86 guineas in Preston. Yearling Shire colts are also cheaper in Yorkshire, and realized 50 guineas down to 39 guineas at York, where Clydesdale fillies, two years old, realized 70 guineas.

Three Friesian cows in England have topped 2,000 gallons a year, and yards of tripe have been written in the daily papers about it. It has started Jersey, Guernsey, Shorthorn and Dexter cattle stuntists on the job of boosting. Every one of them is trotting out his record-breakers, but the claims of the Guernsey cattle bred in England do merit recognition. It must be recollected that the English dairy farmer is only just finding out which is the profit-yielding end of his cow.

The Canadian Shorthorn Annual.

The Canadian Shorthorn Annual, which was issued some time ago, is an exceptionally well-prepared and interesting volume containing one hundred pages. It contains a list of the officers and directors of the Dominion Shorthorn Breeders' Association, the minutes of the last annual meeting, the financial statement, rules for registering animals, the standard for registration in the Canadian Record of Performance, and the names of cows and bulls which have qualified in the R. O. P. It also gives the names of winning Shorthorns at the larger exhibitions held last year throughout the Dominion. The front part of the book is exceptionally well illustrated with Shorthorn animals of outstanding merit. There are a number of timely articles, showing the expansion of the Shorthorn breed and the adaptability of the breed to Canadian conditions. An article on fitting show steers, by J. H. Skinner, Purdue University, is exceptionally well written and contains much practical information. This Annual might well be in the hands of everyone interested in Shorthorn cattle.



Doubly-Saving and Double-Acting

No Baking Powder can be more efficient, more economical than this.

Paying a high price for a baking powder does not guarantee you the best. High prices are sometimes charged for the impression they make.

EGG-O Baking Powder

is doubly saving because it is sold at a fair price, and its double action—in the bowl and the oven—makes it a never-failing leavener.

Buying Egg-O in the larger sized tins is most economical for family use.

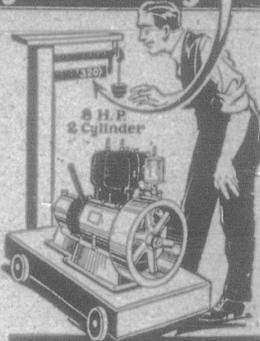
Always follow the directions—one level teaspoonful to one level cup of well sifted flour.

The Egg-O Baking Powder Co., Limited
Hamilton, Canada

What Should an Engine Weigh?

Abraham Lincoln was asked how long a man's legs should be and he replied, "they should be long enough to reach the ground—and no longer." An engine should weigh enough to do its work—and no more. Years ago it was necessary to cast engine parts very large and heavy, with heavy base and fly-wheel, or the violent explosions and fast and slow speeds of the old-style engine would tear it to pieces.

Six years ago the Cushman Motor Works designed a new type of farm engine weighing about one-fifth as much per H.P. as other farm engines, but so well built, balanced and governed that it ran more steadily and quietly than a farm engine was ever known to run. Some people laughed, and said that an engine weighing only 190 lbs. must be a toy, but when they saw the Cushman at work beside heavy engines weighing five or six times as much, they realized that weight does not mean power, and that the Cushman is a giant in power for its size.



Cushman Light Weight Engines
40 to 60 Pounds per Horse Power

4 H.P. Weighs Only 190 lbs. 15 H.P. Weighs Only 780 lbs.
5 H.P. Weighs Only 320 lbs. 20 H.P. Weighs Only 1200 lbs.

Cushman Engines have Throttle Governor and Schebler Carburetor, insuring regular speed even on jobs of irregular loads, like sawing. Their perfect balance also helps to make them steady, insuring unusual durability and freedom from engine trouble.



Before Buying Any Engine Ask These Questions

How much does it weigh? If it weighs more than 60 lbs. per horsepower, why? Is it throttle governed? A throttle governor insures steady, quiet economical power.

Cushman Motor Works of Canada, Ltd.
DEPT. L. A., Verrall Storage Warehouse,
Foot of George Street.
TORONTO, ONTARIO
Head Office: Winnipeg, Man. Distributing Warehouses: Moose Jaw, Saskatoon, Calgary, Edmonton.

NORTHERN ONTARIO
A vast new land of promise and freedom now open for settlement to returned soldiers and sailors FREE; to others, 19 years and over, 50 cents per acre. 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

H. A. MACDONELL, Director of Colonization,
G. H. FERGUSON, Minister of Lands, Forests and Mines.
PARLIAMENT BUILDINGS, TORONTO.

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

Questions and Answers. Miscellaneous.

Cars and Tractors.

1. Where are following cars built: Reo, Oldsmobile and Gray Dorr? Have they warehouses in Canada?
2. Where could I get a good book on running cars and tractors? D. A.

Ans.—1. The Reo is manufactured at Lansing, Mich.; the Oldsmobile, by the General Motors, Oshawa, and the Gray Dorr, at Chatham, Ont. All three have agencies in the larger centres of the Province.

2. "Gas Engine Troubles and Installation," which can be secured through this office for \$1.00, gives valuable information about all parts of a gasoline motor, regarding causes of various troubles and adjustments for the same. We are not familiar with a good book on the running of cars or tractors.

Toad Flax.

What is the name of the enclosed weed? Would you advise patting the field in corn next year? D. W.

Ans.—The weed submitted to this office is a sample of toad flax, *Linaria vulgaris*. This weed is spreading quite rapidly in Eastern Canada, especially on light, shallow soil. Being a perennial and deep-rooted, it is a rather persistent weed. A short rotation of crops with deep, thorough cultivation in spring and fall is recommended for the control of this weed. It is doubtful if you will be able to completely eradicate the weed with the corn crop next year. Plowing early in the fall and giving a partial summer-fallow during the fall months, and then planting to a hoed crop, is a method which has proven successful in cleaning out this weed.

Hens Dying.

I have had several hens die this fall. They would gradually become thinner and weaker and with some one eye was partly closed. Some died with what appeared to be throat trouble; there was a swelling around the neck. What was the cause of the sickness? A. S.

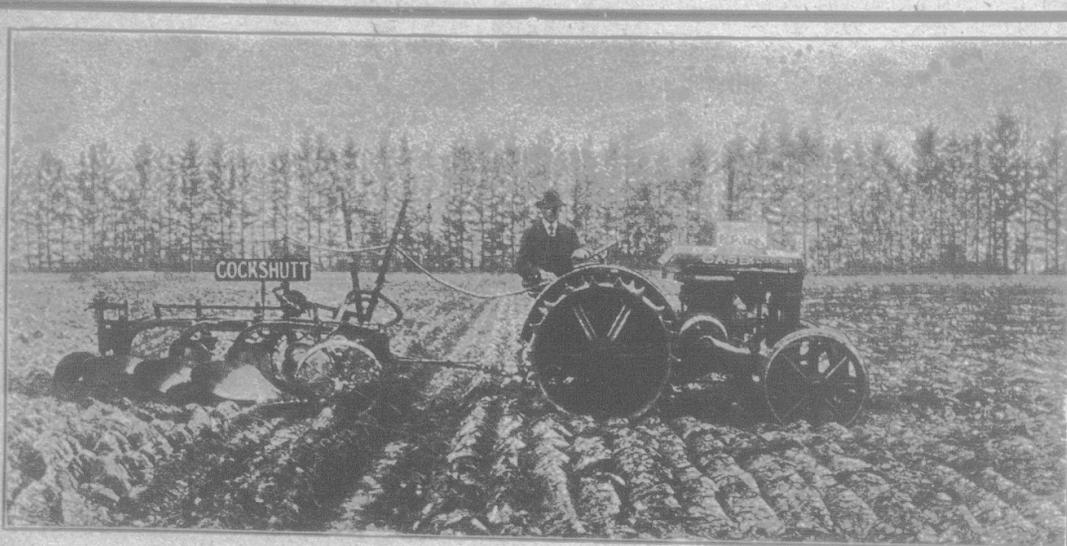
Ans.—The birds becoming thinner and weaker would indicate tuberculosis. Other well-marked symptoms, however, would be a lameness and an anaemic appearance about the head. The swelling of the head and closing of the eyes are symptoms of roup. The diseased birds should be isolated from the healthy ones and the heads bathed in a weak solution of commercial roup cure. The nostrils might be sprayed with oil of eucalyptus. Tumors sometimes appear and should be lanced, and afterwards touched with a five per cent. solution of carbolic acid. To prevent roup getting into the flock, keep the pen clean and the birds well nourished and out of drafts. Exclude from the poultry house anyone coming in contact with infected birds. The throat trouble may have been due to roup.

Veterinary.

Skin Trouble.

I have a pure-bred Berkshire sow that, when her litter is about 4 weeks old takes skin trouble. Scales form over head and back. It is very itchy and the young pigs take it. There is no matter under the scales, but it retards their growth for about six weeks. S. A. R.

Ans.—Some pigs are more subject to troubles of this nature than other breeds. All that can be done as a preventive is to keep the sow in only moderate condition, and see that she gets plenty of exercise during pregnancy. Feed on easily digested laxative food. Thoroughly disinfect the premises in which she is to farrow and nurse her litter and keep thoroughly clean in every way. Make a mixture of 1 part carbolic acid to 50 parts sweet oil or raw linseed oil and rub her well with it every third day for a week or two before the time the trouble usually appears, and daily if symptoms indicate that it is appearing; also rub the young as soon as symptoms appear in the dam. Feed her as soon as she farrows a tablespoonful 3 times daily of equal parts Epsom salts, sulphur and powdered charcoal. In cold weather supply her with all the soil and wood ashes she will consume, also a reasonable supply of raw roots.



COCKSHUTT "VICTORY" PLOW

At the International Plowing Match held recently at Chatham, Mr. J.B. Cooperthwaite, of Agincourt, won **FIRST PRIZE** in the Tractor Plowing Competition with his Cockshutt 3-Furrow "VICTORY" Plow. In that contest were 27 Tractor outfits—with 19 of them pulling Cockshutt Plows. Experienced plowmen and tractor operators everywhere realize that for best results with any make of Tractor and under all kinds of plowing conditions, the **COCKSHUTT** is the Plow to use.

You Can Get the Same Results

The Cockshutt "Victory" Plow is built in 2-Furrow and 3-Furrow sizes and with 10", 12" or 14" bottoms. Get the size best suited to your tractor and your land. Always remember it's the Plow that actually does the work—the Tractor is but the motive power. The Cockshutt will hitch behind any make of Tractor.

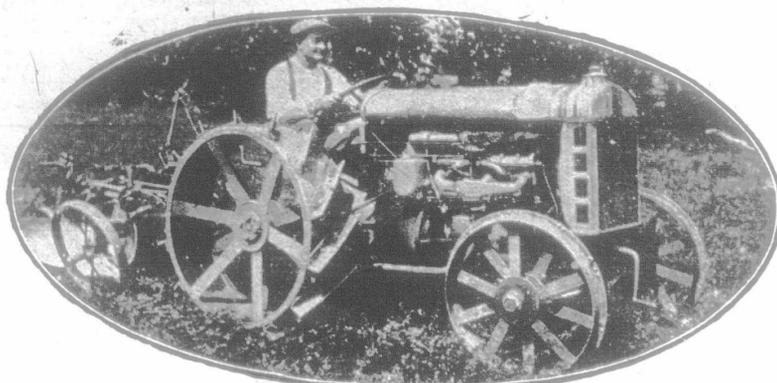
Automatic Power Lift raises and lowers the bottoms. Operator sits on his Tractor and simply pulls a cord. Extra clearance provided between beams for working dirty land. Every part has surplus strength. Design of moldboards and shares is the result of long experience. They will give **YOU** the same splendid service they are giving others.

See our nearest Agent or write us for further particulars.
Farm Implements and Machines for Every Farm Need.

Cockshutt Plow Co.
Limited
BRANTFORD, ONTARIO
Winnipeg, Regina, Calgary,
Saskatoon, Edmonton.

Sold in Eastern Ontario,
Quebec and Maritime
Provinces

Frost & Wood Co.
Limited
SMITHS FALLS, ONTARIO
Montreal, St. John, N.B.



Hon. E. C. Drury, Ontario's Victorious Premier, operates a Cockshutt Victory Plow on his farm at Barrie.

Questions and Answers.

Miscellaneous.

Tractors and Tractors.

Are following cars built: mobile and Gray Dort? Have houses in Canada? Could I get a good book on tractors? D. A.

The Reo is manufactured at Oshawa, Ont. All three have the larger centres of the

Engine Troubles and In- which can be secured through \$1.00, gives valuable about all parts of a gasoline causes of various troubles for the same. We with a good Book on the or tractors.

Toad Flax.

the name of the enclosed would you advise putting the next year? D. W.

weed submitted to this office toad flax, *Linaria vulgaris*, is spreading quite rapidly in Canada, especially on light

Being a perennial and it is a rather persistent weed. Cultivation of crops with deep, in spring and fall for the control of this doubtful if you will be able to eradicate the weed with the next year. Plowing early giving a partial summer the fall months, and then a hoed crop, is a method even successful in cleaning

Hens Dying.

several hens die this fall gradually become thinner and with some one eye was Some died with what the throat trouble; there around the neck. What of the sickness? A. S.

birds becoming thinner and indicate tuberculosis. Other symptoms, however, would and an anaemic appearance ad. The swelling of the of the eyes are symptoms diseased birds should be the healthy ones and the in a weak solution of com- cure. The nostrils might h oil of eucalyptus. Tumors ear and should be lanced, is touched with a five tion of carbolic acid To getting into the flock, keep and the birds well nourished drafts. Exclude from the anyone coming in contact birds. The throat trouble due to roup.

Veterinary.

Swine Trouble.

re-bred Berkshire sow that is about 4 weeks old takes Scales form over head and very itchy and the young There is no matter under it retards their growth for S. A. R.

pigs are more subject this nature than other that can be done as a pre- p the sow in only moderate see that she gets plenty of g pregnancy. Feed on axative food. Thoroughly remises in which she is to arse her litter and keep n in every way. Make a part carbolic acid to 50 or raw linseed oil and rub it every third day for a fore the time the trouble s, and daily if symptoms t is appearing; also rub on as symptoms appear in her as soon as she farrows 3 times daily of equal lts, sulphur and powdered old weather supply. her il and wood ashes she will a reasonable supply of V.

The Trapper.

POSSIBILITIES AND PRELIMINARIES.

It is almost needless to enumerate here the possibilities in trapping fur-bearing animals. Millions of dollars worth of furs are yearly taken in Canada, and strange as it may seem, the most of the Canadian furs are trapped by the farmer and his sons. Some may be more favorably located than others, but they are very few, if any, communities where a person cannot make a good thing during winter as a side line, devoting his spare time to the very profitable industry of trapping. I can easily call to mind many farmers or farmers' sons who make anywhere from a hundred dollars up each season, depending on their locality and the amount of time devoted to it.

Again, any one who is fortunate enough to have swamp land can turn it from land of no value into the best paying land on the farm, with only a fractional part of the outlay that would be yearly necessary on ordinary land. The method of doing this is to fence off the swamp with a strong wire fence of about two-inch mesh, and "grow" muskrats. After the land is fenced you would not want to trap any rats for about two years, and you would then be able to begin operations, increasing the number you catch each season. Of course, if it is a large swamp, it would not even be necessary to fence it. The idea is this. Muskrats are very prolific, and one pair would on an average easily rear fifteen a year, so you can readily understand how fast this would count up if left to increase for a year or two. In the United States, in the south, a somewhat similar method is used, and thousands of dollars are taken in annually. No fences are here used, but the limits that are rented to each one are staked off, and one trapper does not trespass on the other's land. In a fairly large swamp, of course, no fencing would be necessary. Muskrats however, must have water, and if the streams or ponds in the swamp froze to the bottom in the winter, it would have to have them dug deeper so that the water would not freeze solid, as muskrats must have water.

Two things ought to be taken into consideration by the trapper, and these only. Never trap unprime furs, and use methods and devices to put the animals out of their misery in the least possible time. As a means to this latter end, look at your traps each and every morning regularly, as soon after daylight comes as possible. Most fur-bearers are nocturnal, in part at least, and in daylight they are nervous and afraid. Therefore, when they are captured and when daylight comes, they work harder than ever, if they are alive, to secure freedom, and by looking at the traps regularly and early every morning, you not only decrease their suffering, but you also then run fewer chances of having them get away by securing their freedom at the price of amputating or pulling off their imprisoned limb. You see it pays to be humane, and I have yet to know of any one who ever gained anything by causing an animal unnecessary cruelty. Another method is to use, whenever possible, one of the types of traps that instantly kill the animals. By these I refer to the "Kill-um" and "tree" traps. The former are for muskrat, skunk and all animals having burrows. They are made of heavy wire and placed over the mouth of the burrow. When an animal attempts to enter or emerge it touches the trigger, and the two "circles" of wire go in opposite directions and almost instantly choke the animal to death. For mink, marten, muskrat, etc., use size No. 1 of this trap; for skunk, coon, etc., use size No. 2. The tree trap fastens to a tree by means of nails, and was originated for such climbing animals as coon, etc., and when fastened to the trunk of the tree is used for weasel, mink, marten, etc. The bait is fastened to the trigger, and when the animal touches bait, the jaw comes down over its head and holds it fast, killing it very quickly. For weasel use size No. 0, mink, etc., size No. 1, marten, etc., size No. 2, raccoon, etc., size No. 3. Of course, these traps can be used only at certain sets, as stated, but you can at least use them there. By doing this you are following along humane lines, and at the same time, when you use these traps there is no possibility of the animal getting away.

Active Christianity Will Mend the World

THE United National Campaign—representing the co-operative feature of the simultaneous, but independent, Forward Movements of the Anglican, Baptist, Congregational, Methodist and Presbyterian communions invites all followers of our common Lord and Master to pray earnestly for the peace and well-being of Canada and the world, and for a renewal of the Christian spirit of sacrifice and service.

Thirteen National Conventions

Thirteen National Conventions are about to assemble at the call of the United National Campaign. The dates arranged, and the places of meeting here follow:—

November 24th and 25th	Toronto and Montreal.
November 25th and 26th	Montreal and Moose Jaw.
November 26th and 27th	Regina.
November 27th and 28th	Saskatoon.
December 1st and 2nd	Edmonton and St. John.
December 2nd and 3rd	Calgary, London and Halifax.
December 4th and 5th	Charlottetown and Vancouver.

The Objects of the Conventions

1. To give thanks to God for Victory.
2. To rouse the Canadian people to a keener sense of their religious privileges and national responsibilities.
3. To stimulate the practice of prayer for individual and national needs at this difficult period.
4. To re-affirm the principle that the Gospel of Christ is the only cure for those conditions which produced the world war, and the only foundation for ensuring national stability, social welfare and individual happiness in the day of peace.

The Reason for United Action

His Grace, the Archbishop of Canterbury, preached the opening sermon of the Church Congress held at Leicester, England, on October 14th, 1919. On that occasion, he said:—

"We ought to be able to make more of the real oneness, which, thank God, is already ours, the oneness, both in faith and in potential action, of all who can and do kneel to Christ as their living Lord. We want to dwell upon and foster the power of that fellowship for united impact upon the world, or penetration of the world, at an hour so inexpressibly difficult as this. That need not, it will not, interfere with completest loyalty to the distinctive truths, which in our smaller circles

within the Church of God we conscientiously hold dear."

"The corporate life which belongs definitely to our own Churchmanship claims our whole-hearted allegiance. But that allegiance acquires an element of peril if it becomes so disproportioned as to obliterate or mar our loyalty to the larger whole, the Christian fellowship, the God-guided life and energy of all who profess and call themselves Christians."

The United National Campaign

G. H. Wood - Chairman of the Executive Committee

Yourself— Build More Com- fort into the Farm Home

Aren't there a dozen improve-
ments you've been going to make
in the home, and which you've
put off?

A bathroom, another bedroom
in the attic, a brighter kitchen,
a better storeroom, a new dress
for the old livingroom.

You can do these things your-
self—easily—with Beaver Board.
Big knotless panels of manu-
factured lumber—easy to handle.
Give you the most wonderful
opportunity for attractive, bright,
cosy interiors.

The farmer has a dozen uses
for Beaver Board—can effect
a dozen economies with it. Learn
the facts about Beaver Board.
Send us your name and address
for our book "Beaver Board and
Its Uses" and a sample of
Beaver Board.

THE BEAVER CO., LIMITED
414 Wall St., Beaverville, Ottawa
Plants at Ottawa and Thorold, Ont.
Distributors in principal cities.
Dealers everywhere.

BEAVER BOARD

FOR BETTER WALLS & CEILING



You can't expect Beaver
Board results unless this
trade mark is on the back
of the board you buy—
MADE IN CANADA.

I Will Chop, Turn, Saw or Grind all Day 3 to 14¢ per hour

I am the Lundy Engine. I am
strong. I work without tiring; nor do I complain. I do my work
steadily and faithfully. All I ask is a little daily oil to make my
joints limber and easy, and some Kerosene to keep up the beating
of my mighty heart. I will do all kinds of work that a man could
not do. I will grind feed to fatten cattle; chop wood, so that my
master may sit in comfort by his winter fire; turn the lathe, the grind-
stone, the churn, the separator, or the washing machine. I will saw
logs into lumber to build new houses and bigger barns. I will pump
water, pull stumps, and do a hundred things that require big power
to pull or lift. I never give trouble. I start quick when ordered.
I am not over noisy when I am working and I manage to make my
owner feel that he has the best servant and the best service. Every
farmer needs me. I shall be glad to go out and serve well the man who
gets me, and pay for my cost many times over in the work I do.

LUNDY ENGINE Gives Lots of Power—Cheap

The Lundy Engine is built for strength and
durability. No skimping to save cost; parts
that need strength are made heavy; bear-
ings are silent; wheels run true, and the
whole engine moves smoothly. There are
FIFTEEN improvements over the pre-
vious model. Runs on Coal Oil, and
costs 3c to 14c per hour, according
to H.P. Does not overheat or
stall. Has new arrangement of
carburetor, which makes it leak
proof. Consult us about the en-
gine you need. Tell us what you
intend to use it for, the size of the
machinery you want it to turn, and
we will gladly advise you proper
size and H.P. of engine to get.



Write for Engine Booklet. Free on Application
A. R. LUNDY, 251 King St. West, Toronto

It is primarily for the trapper's own
benefit to drown, as soon as possible
after their capture, all aquatic animals,
to prevent their securing freedom (musk-
rat, mostly, by amputating or pulling
out their feet). There are several methods
of doing this, but they are all similar, and
the two best methods are given below.

Secure a small pole over which the
ring on the trap chain will slip easily,
about six feet in length, and trim it of
all twigs and limbs down smooth. Leave
a crotch or V-shaped pair of twigs at
the small end which the ring cannot
slip over, and sharpen the butt end.
Now take this where you are making
your set, slip the ring of chain over end,
run butt back in bank far enough to
have it solid, and have it on the incline,
that is, sloping down towards the stream.
Set your trap at the set you have selected,
and when animal is caught it naturally
makes for deep water to rid itself of the
trap. The chain ring slides readily
enough down the stick to let it into
deep water, where, with the weight of
the trap, it will drown in very short
order.

The other method is on much the same
principle, but made of wire instead of a
pole or limb.

A piece of wire is used of about the
same length as the foregoing; one end
is fastened to a flat stone and the other
to a stake driven into the bank. The
trap ring is placed on wire before being
fastened to the stake, and the stone
thrown out into deep water, so wire is
gradually or steeply inclined in the
direction of the deep water. I have used
these methods a great deal and have yet
to fail to drown the animal when the
water was any depth at all. So much for
that.

Now, regarding the taking of furs
only, you know, as well as all
trappers, it should not be done, and all
trappers should be with the fur trade advice
committee for the simple reason that
if you take an animal whose
pelt is worth more than you lose at the very
moment you get for it, you are making a
profit. It is the only way of the season.

TRAPPERS

It's FREE

Send For This
Great Book



It's just what you've been
looking for. **THE ART OF
TRAPPING** is the best and
most complete Trapper's
Guide ever published—prepared
at great expense—by experts. It
gives a complete and accurate de-
scription, pictures and tracks of the
different Fur-bearers of North Am-
erica; it tells when and where to
trap; the best and most successful
trapping methods; the right kind of
baits and scents; the sizes of traps to use; the correct way
of skinning and handling the different pelts to
make them worth the most money; the trapping
laws of every province.

"SHUBERT"
will send this great book FREE to any one interested
in trapping or collecting Fur-bearers. Just sign and
mail the coupon today.
"THE ART OF TRAPPING" is NOT a supply cata-
log—but a real Trapper's Guide containing information
of inestimable value to any trapper. It will guide and
help the experienced trapper and teach the beginner the
art of successfully trapping the North American Fur-bear-
ers. No trapper or Fur collector can afford to be without
this great book. Send for your copy at once.

A. B. SHUBERT, LTD.
THE LARGEST HOUSE IN THE WORLD DEALING EXCLUSIVELY IN
NORTH AMERICAN RAW FURS
324 DONALD ST., WINNIPEG, CANADA.

SIGN AND MAIL THIS COUPON TODAY

WITHOUT OBLIGATION SEND ME
"THE ART OF TRAPPING"
THE BEST AND MOST COMPLETE TRAPPER'S GUIDE EVER PUBLISHED
and keep me posted on Raw Fur Market-
Conditions during the Fur Season of 1919-1920 125

Name _____
Post Office _____ (PLEASE PRINT NAME) R.F.D. _____ Box No. _____
Electoral District _____ Province _____
Copyright, Canada, 1919, A. B. Shubert, Ltd.

the animal was caught. At the very
least you lose this, mind you, and as a
rule more.

You may say that one unprime pelt
is such a small loss. It is, but it is the
number of these small losses that count,
and yearly thousands and hundreds of
thousands of dollars are lost in this
manner. The farmer who would cut
his grain when it was green simply to get
it sold quicker would be a good candidate
for the asylum, but it is no more foolish
to do this than it is to capture animals
whose pelts are unprime. In spite of all
that amateur trappers are told every
season, as regular as clockwork, they con-
tinue to catch unprime animals. I know
of instances where trappers will catch
furs, year after year, and not secure one-
sixth of what they were worth had they
waited two months longer, and by trap-
pers who have had experience and are old
enough to know better. From all I can
make out it shows a lack of judgment
and brains. They always have and
always will persist in killing the goose
that lays the golden egg in anything that
they undertake to do. You no doubt
could name similar specimens and know
what I mean. Don't be like them, but
rather use your brains and judgment for
what they were originally intended, and
go at trapping in a businesslike, systematic
and humane manner. Remember it can
be conducted on a losing scale, or one
that will return you much money for the
time and labor expended. It all depends
on yourself.—R. G. Hodgson.

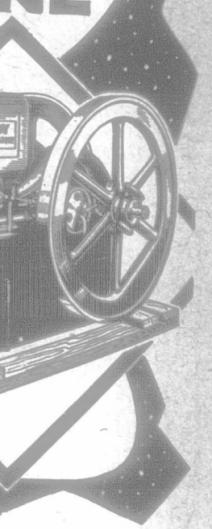
Questions and Answers. Miscellaneous.

Hereford Herd Book.
Where could I obtain Volume 10 of the
Canadian Hereford Herd Book? D. J. S.
Ans.—Write the Accountant, National
Live Stock Records, Ottawa, or H. D.
Smith, Secretary of the Canadian Here-
ford Breeders' Association, Ancaster,
Ontario.

n. Saw
3 to 14¢
per hour

I do my work
oil to make my
up the beating
at a man could
wood, so that my
lathe, the grind-
mine. I will saw
ns. I will pump
require big power
when ordered.
age to make my
t service. Every
t the man who
the work I do.

NE



Horse Owners! Use
GOMBAULT'S
Caustic Balsam
A Safe, Speedy, and Positive Cure



The safest, Best BLISTER ever used. Taken the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.75 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto, Ont.

YOU CAN'T CUT OUT A BOG SPAIN OR THOROUGHPIN
but you can clean them off promptly with

ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.

and you work the horse same time. Does not blister or remove the hair. \$2.50 per bottle, delivered. Will tell you more if you write. Book 4 R free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Wens, Cysts. Alays pain quickly. Price \$1.25 a bottle at druggists or delivered. W. F. YOUNG, Inc., 258 Lyman's Bldg., Montreal, Can.

BOOK ON
DOG DISEASES,
And How to Feed

Mailed free to any address by the Author.

H. Clay Glover Co.
Inc.
118 West 31st Street,
New York, U.S.A.

America's
Pioneer
Dog
Remedies

If you want fair grading, highest prices and prompt returns, ship your

RAW FURS

to us. Price list of furs and trappers' supply catalogue free on request. We are also in the market for

DEER SKINS

Write for prices.

E. T. CARTER & CO.
77 Front St. E. Toronto, Can.

TRACTORS!

GET INSTRUCTION

Every farmer in these days of high wages and scarcity of help is thinking —TRACTORS.

If he does not buy one this year, he will next; and if not next year, then the year after. But he is bound to get one.

IF YOU OWN A TRACTOR you want to save maintenance and repair bills. We show you how.

IF YOU THINK OF BUYING A TRACTOR, get instructions first, and buy not as a novice, but as one who has a thorough knowledge of Tractors.

IF YOU SELL TRACTORS, gain self-confidence and the respect of your customers by a sound knowledge of the machine you sell.

LASTLY, IF YOU WORK ON THE FARM, be worthy of higher wages and better conditions. Become a highly-paid expert Tractor operator.

OUR CORRESPONDENCE COURSE gives a complete up-to-date, thorough training on every phase of every tractor. Write NOW for free information.

CANADIAN CORRESPONDENCE COLLEGE
Dept. E, Toronto

and Answers.
aneous.

rd Book.
ain Volume 10 of the
rd Book? D. J. S.

ccountant, National
Ottawa, or H. D.
the Canadian Here-
ociation, Ancaster,

WHEN WRITING ADVERTISERS
Please mention Advocate

Trappers! Learn This Table by Heart.

Here, for the guidance of the new trapper, are a few brief notes about the seasons when he is most likely to get prime skins. It must not be taken as law, because the weather conditions in each locality affect the quality of furs considerably on animals. This will, however, serve as a very fair guide.

Skunk: In the northern regions skunk are prime about the last of October and stay so until the middle of March. In the south they are prime toward the last of November and stay so until the middle of March.

Mink: Prime in latter part of November, December and January in the north; in December and January only in the south. At the beginning of February, especially if the winter is mild, they begin shedding in both sections.

Muskrat: In the north muskrat skins are fair in the fall, but not really prime until midwinter. They remain prime until latter part of April or first part of May. From then until June they shed slowly. In the south muskrat trapping should not be continued after April 1.

Otter: In the north they are prime from November 1 to June 1. In the south they are prime shortly after the first of December and stay so until the middle of April.

Fox: Generally speaking fox are prime in the north about 15th of November to the middle of March; in the south from November 30 to February 1.

Raccoon: Northern raccoon are prime November 1; later in the south, according to location. They should not be trapped later than March 30 in the north or February 28 in the south.

Opossum: In the north, opossum are prime about November 1 and stay so until March 1. In the south they do not become prime until November 15, and begin to shed several weeks earlier than they do in the north.

International Live Stock Show.

Great preparations are under way for the International Live Stock Show to be held in Chicago commencing November 29. The entries of live stock consist of 441 Shorthorns in the breeding class, and 49 in the fat class. There are several entries from Ontario; 141 Milking Shorthorns are entered. The Angus breed will be represented by 244 in the breeding class and 82 in the fat class. There are 381 Herefords in the breeding class and 88 in the fat class. One hundred and ten grades and cross-breeds are entered. The sheep classes have a large entry. Among the exhibitors from Canada are George Allan, Caledonia; H. M. Lee, Highgate; J. H. Patrick & Son, Iderton; F. B. Gosnell, Highgate; Peter Arkell & Sons, Teeswater; R. Armstrong, Teeswater; G. B. Armstrong, Teeswater; Robt. McEwen, London; E. F. Rich, Burford; Larkin Farms, Queenston, and Jas. Snell, Clinton. In the breeding classes of swine there are 129 Berkshires, 79 Poland Chinas, 57 Chesters, 192 Durocs, 21 Tamworths, 64 Yorkshires and 83 Hampshires. The Percherons are 281 strong; Clydesdales, 139; Shires, 88; Belgians, 167; and Suffolks, 50. The entry list indicates that there will be particularly strong competition in every class. Time can profitably be spent in attending this great exposition.

To Discover Parasites of European Corn Borer.

The United States Bureau of Entomology, a branch of the United States Department of Agriculture, has instituted an enquiry into the nature and possibilities of the control of the European Corn Borer by parasites. This work has been begun with a view to the dissemination of parasites in order to combat this destructive pest in America. We were interested to learn that a Canadian, a graduate of the Ontario Agricultural College and Cornell University, William R. Thompson, a native of Middlesex County, Ontario, has been appointed specialist in parasites to take charge of this work. Mr. Thompson will have a laboratory near Toulouse, in the south of France. At present he is completing his course for a doctor's degree in biology at Paris University.

Ship Your Furs Now!



Funsten
Deliver to
Bros & Co.
INTERNATIONAL FUR EXCHANGE
DIRECT HANDLING OF FURS
LARGEST IN THE WORLD
ST. LOUIS, U.S.A.

This Tag on the Outside makes the Furs Inside Worth More Money to You!

Cut Out this tag, paste on cardboard and tie to bundle

A Funsten Tag on your shipment brings you back the most money! Send all your furs to Funsten, St. Louis, for a square deal and the highest prices.

FUNSTEN
The World's Largest Fur House
ST. LOUIS, U.S.A.

The fur market needs every pelt you can catch — muskrat, mink, skunk, coon, fox, otter, marten, and furs of all kinds! Canadian trappers make most by shipping to the great fur market, St. Louis, U.S.A. Funsten sells to buyers from all parts of the world; hence we can pay you more for your furs.

There are no restrictions on shipments of furs from Canada to St. Louis, U.S.A., and no duty on raw furs.

Grades Highest, Pays Highest

Funsten Bros. & Co. for 38 years have been famous all through Canada and the United States for their high grading. Our experts give you every bit of value in your pelts. All grading done under the supervision of the officers of this firm.

Ship Now! Spot Cash!

Ship now and get your check by return mail! Ship while the market is strong; don't delay — the cash is waiting for you now!

The enormous volume of Funsten shipments enables us to do business on a very small profit-margin, hence we can pay you more. That is why more than 500,000 trappers ship to Funsten.

Free Book and Shipping Tags!

Send for free book containing color pictures of American furbearers drawn by Charles Livingston Bull. Also gives valuable facts on how to prepare furs and ship. Game laws and catalog. Ask for free shipping tags and market reports.

FUNSTEN BROS. & CO.
INTERNATIONAL FUR EXCHANGE
724 Funsten Bldg., ST. LOUIS, U.S.A.

THE GENERAL ANIMALS INS. CO. OF CANADA
71 A St. JAMES, MONTREAL
LIVE STOCK INSURANCE
AGAINST LOSS THROUGH DEATH BY ACCIDENT OR DISEASES

SPECIAL RATES for Registered Cattle and Horses. Short term insurance at low rates for Show Animals, Feeding Cattle, Animals shipped by rail or water, In-ford mares, In-calf cows, Stallions etc.

WRITE US FOR FREE PROSPECTUSES

Address: THE GENERAL ANIMALS INS. CO.
71 A St. James Street, Montreal.
JOHN H. HARRIS, Inspector, 31 Scott Street, Toronto. Phone Adelaide 2740

International Live Stock Show

November 29th to December 6th
Union Stock Yards, CHICAGO
The Victory Carnival of the Live Stock World.
The Criterion of All Stock Shows.
Daily Sales of Pure-bred Stock
FOLDED HEREFORD SALE—Tuesday, Dec. 2nd, 1.00 p.m. For catalogue write B. O. Gammon, 324 Valley National Bank Bldg., Des Moines, Ia.
ABERDEEN-ANGUS SALE—Wednesday, Dec. 3rd, 1.00 p.m. For particulars write Chas. Gray, Union Stock Yards, Chicago.
FOLDED SHORTHORN SALE—Thursday, Dec. 4th, 10.00 a.m. For catalogue write J. H. Martz, Greenville, Ohio.
SHORTHORN SALE—Thursday, Dec. 4th, 1.00 p.m. For catalogue write F. W. Harding, Union Stock Yards, Chicago.
HEREFORD SALE—Friday, Dec. 5th, 1.00 p.m. For particulars write R. J. Kinser, 1,000 Baltimore Ave., Kansas City, Mo.
Study intimately the Art of Breeding.
Learn to reduce the HIGH COST OF LIVING by economic feeding methods.

The International Hay and Grain Show for Chicago Board of Trade Prizes.
The Brilliant Evening Horse Shows and A TRIP TO CHICAGO.

Lowest Rates on All Railroads.

Lump Jaw

The only reliable treatment for Lump Jaw in Cattle.
Fleming's Lump Jaw Cure
Price \$3.50 a bottle. Sold under a positive guarantee since 1896. Your money back if it fails. Write for Fleming's Vest-Pocket Veterinary Advisor 96 pages and illustrated. It is Free. Fleming's Chemical Horn Stop. A small quantity applied when calves are young will prevent growth of Horns. A 50c tube sent postpaid in enough for 25 calves.
FLEMING BROS., Chemists, 79 Church St., Toronto, Ont.

ALLOWAY LODGE STOCK FARM

Angus, Southdowns, Collies
Choice bred heifers. Bulls 8 to 15 months. Southdown ewes in Lamb.

ROBT. McEWEN, R. 4, London, Ont.

MESSRS. A. J. HICKMAN & CO.

Halse Grange, Brackley, England

Exporters of all Breeds of Pedigree Live Stock.

Send for an illustrated catalogue and see what we can do for you. Whether you want show or breeding stock, buy direct from England and save money.

SUNNY ACRES

ABERDEEN-ANGUS

The present string of young bulls for sale includes some classy herd bull prospects, winners themselves and sired by champions. If interested in Angus write your wants. Visitors welcome.

G. C. CHANNON - Oakwood, Ontario
P. O. and 'phone
Railway connections; Lindsay, C.P.R. and G.T.R.

Aberdeen-Angus

Meadowdale Farm
Forest Ontario.

Alonzo Matthews Manager
H. Fraleigh Proprietor

Keep Dirt and Filth Out of the Milk by clipping the cow's flanks and udder every month. Then with a damp cloth wipe the parts off in a hurry. There is no long hair to hold the dirt and the milk is clean and wholesome as it falls into the pail. Clipping all over twice a year is good for the cows. A Stewart No. 1 Machine is best. It will clip horses also. Get one from your dealer or write direct to us.
CHICAGO FLEXIBLE SHAFT COMPANY
Dept. A 161, 12th St. and Central Ave., Chicago, Ill.

Commission Men Pay More

Dealers pay more for cattle that have been dehorned. The hides are worth more and the flesh has less bruises. Write for booklet telling about the Keystone Dehorner.

R. H. McKenna, 219 Robert St., Toronto

Sunny Side Herefords—Choice bulls and heifer calves, young cows with calves at foot. Reg. Shropshire rams ewe and ewe lambs. Inspection invited. All are priced to sell.
Arthur F. O'Neil & Sons, R.R. No. 2
Denfield, Ont.
Phone 27-12 Granton.

Kennelworth Farm—The strongest offering we ever had, all are sired by Victor of Glencairn and a number are ready for service. Prices reasonable.
PETER A. Thompson, Hillsburg, Ontario.

Beaver Hill Aberdeen-Angus and Oxford Sheep—Bulls from 8 months to 30 months. Females all ages. Shearing rams and ram lambs. Priced for sale.
ALEX. MCKINNEY, R. R. No. 1, Erin, Ont.

Balmedie Aberdeen-Angus

Nine extra good young bulls for sale. Also females all ages. Show-ring quality.
THOS. B. BROADFOOT - FERGUS, ONT.

Housing Swine in the Winter.

BY W. C. MCKILLICAN, BRANDON EXPERIMENTAL FARM.

In providing shelter for swine during the winter months the chief consideration is dryness. Other points such as warmth and ventilation are important and closely related, but the absolute essential is dryness. Buildings heated by the warmth of animals have a great tendency to excessive moisture, because the warmth comes chiefly from the animals' breath which is moisture-laden. An excessively moist atmosphere is detrimental to the health of any animal, but to pigs it is particularly objectionable, as they are more subject to rheumatism and other troubles traceable to dampness.

WINTERING IN PIGGERY.

The brevity of this article will prevent any full discussion of piggery construction, but a few essentials may be noted. Cement floors are the best from the standpoint of sanitation and durability, but a pig should never lie on a cement floor. Sleeping platforms should be provided. These may be raised only an inch or two above the cement or may be elevated so that there is a two-story pen with a gangway up to the sleeping quarters. Cement should not be used for piggery walls; it makes a damp building. Wooden walls with plenty of insulation by means of paper and dead air spaces are best. A piggery should have ample sunlight, and the rays should shine on the sleeping quarters, keeping the bedding dry and sweet. The area of glass should not be extreme, however, as that defeats the object, making the building too hard to warm and consequently damp. The ceiling of a piggery should not be too high; a low ceiling allows the place to warm up more readily and facilities ventilation. A good system of ventilation should be installed, or a straw-filled loft with slatted ceiling may take the place of the foul air vents.

WINTERING IN STRAW PILE.

Where straw is plentiful, pigs may be wintered quite successfully in a large pile of straw. A start at a burrow in the straw should be made for them by threshing the pile over a clump of bushes, some home-made trestles, a fence or other obstacle that will make a hollow place in the centre of the pile, and a runway out from it. The pigs will then burrow from this and make their own nests.

Where the amount of straw to be used is not unlimited, the same kind of shelter can be made with much less straw. The shelter place should be surrounded by a fence and roofed over with poles. A second fence should surround this at a distance of at least six feet. Straw is then perched in the intervening space and piled over the top. A crooked entry passage at the south side will allow the pigs to come in and out without too much direct draft entering the pen.

WINTERING IN CABINS.

Pigs can be wintered quite comfortably in the ordinary cabins used for providing shelter on pasture in summer. Where the location is well drained, and the climate dry, these cabins are better without floors. The pigs work the soil into a fine dust which makes an excellent warm bed. Floors up a distance from the ground have a cold draft under them, and are likely to be wet from the pigs' urine unless bedding is changed frequently. However, on level locations and in wet climates, where the earth would be muddy, it is necessary to put in a wooden floor. Where this is done, the cabin should be well banked with earth or manure, so that the cold air cannot blow under the floor, and dry bedding given whenever needed. The ordinary A-shaped cabin is found very satisfactory at Brandon, and is cheaply and quickly made. A cabin with straight walls and shingled roof is more durable, but considerably more expensive. Two or more of these cabins may be placed in a row, and the space between filled with straw. Straw should be piled against the sides of the end cabins. It is advisable to keep the pigs away from this straw, or they will tramp it down and carry it into the cabins. An odd length of woven fencing is quite suitable for this purpose.

Brood sows wintered in such shelters as above described, are found to winter better than in the most elaborate piggery.

FREE! POSTPAID SAMPLE BOX OF CORONA WOOL FAT

You know what it means to you when busy with field work to have your horses laid up with sore shoulders and harness sores. You know what you lose in milk profits when your cows have sore teats. You know the danger of losing valuable cows at calving time as a result of caked or inflamed udders.

THE GREAT HEALING OINTMENT is worth its weight in gold to any live stock owner—there is no other remedy so effective for quickly healing Horse's Galled Shoulders, Barbs, Wire Cuts, Torn or Bruised Flesh, Scratches, Grass Hoof Thrush, Sore Teats and Caked Udders on Cows. Udders cured in 24 hours of any kind.

Send me your name and address, and I'll send you free and postpaid, a sample box of this wonderful healing compound. I want you to prove at my expense that it is the best and most effective remedy you ever used.

CORONA WOOL FAT is different from ordinary salves and blistering compounds. It is extracted from the wool and skin of sheep. It is very penetrating (but does not smart) and carries its soothing, healing properties directly to the seat of trouble. It has been the means of saving many valuable animals from permanent disability. CORONA WOOL FAT COMPOUND is for sale by reliable druggists, dealers in Ointments and Stock Feed Remedies. Send for 15-day sample.

C. G. PHILLIPS, President
CORONA MFG. CO., 30 Crown Kenton, Ohio, U.S.A.

LARKIN FARMS, QUEENSTON, ONT.
ABERDEEN-ANGUS CATTLE, SHROPSHIRE and SOUTHDOWN SHEEP
CORRESPONDENCE and INSPECTION INVITED
(Mention Farmer's Advocate)

Highland Park Scotch Shorthorns
Herd headed by Imp. Edgote Broadhocks, one of the best breeding bulls in the Country. Imported and Canadian bred females for sale, bred to the herd bull, some having calves at foot and bred again to him. This is a choice offering. Prices reasonable.
W. C. SUTHERLAND, R. R. 7, GALT, ONT.

ELMGROVE SHORTHORNS, YORKSHIRES
Owing to pressure of other business I will not hold my annual sale of Shorthorns this fall but am offering privately a limited number of young cows, several with calves at foot, and also a few choice-bred heifers near calving. The most select offering I ever had on the farm and all showing in good condition.
In Yorkshires I have several bred sows; a few boars of serviceable age and some young litters.
JAS. R. FALLIS, Elmgrove Farm, BRAMPTON, ONT.

Plaster Hill Herd Dual-Purpose Shorthorns
For sale ten young bulls from large, deep milking cows, with records up to 12,000 lbs. 15 cows and heifers heavy producers mostly all in calf to Green Leaf Record 96115 or Dictator whose two nearest dams average over 12,000 lbs.
ROSS MARTINDALE, CALEDONIA, R. R. No. 3, ONT.
Long Distance 'Phone.

The Salem Herd of Scotch Shorthorns
HERD HEADED BY GAINFORD MARQUIS, CANADA'S PREMIER SIRE
Write us about the get of Gainford Marquis. They have won more at Toronto and other large exhibitions than those of any other sire. We still have a few sons to offer, as well as females bred to Canada's greatest sire.
J. A. WATT - Elora, Ontario

Shorthorns and Clydesdales—College Duke 4th in service. Three nearest dams and sire's dam have milk records averaging over 9,000 p unds. Six bulls of serviceable age; also a few females. One extra choice yearling stallion by Imp. Dunure Beauclieu.
Write STEWART M. GRAHAM, Lindsay, Ont.

SHORTHORNS SHROPSHIRE COTSWOLDS
Blairgowrie Stock Farm
Cows in calf and calf by side. Also heifers in calf and others ready to breed. Bulls of serviceable age.
JNO. MILLER (Myrtle Station, C.P.R., G.T.R.)

FOR SALE A Dual-purpose Shorthorn Bull, roan, nine months, good type. Dam came second in her class in 1917 official test. Sire's dam and grandam both made high official records.
D. Z. GIBSON, CALEDONIA, ONT.

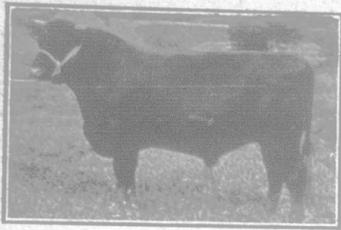
Newcastle Herd of Shorthorns and Tamworths for Sale—5 choice bull calves, 5 to 6 months old, several heifer calves, all sired by Primrose Duke 107642. heifers and young cows bred to him; good dual-purpose cows. A choice lot of Tamworths of both sex and various ages; young sow or two bred to farrow in Sept. or Oct., all from noted prize winners.
Long-distance 'Phone
A. A. COLWELL, R. R. No. 2, Newcastle, 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 Raphael (Imp.), one by Right Sort (Imp.), one by Sixtyton Selection, and several by our present herd sire, Newton Cedric (Imp.). Prices right.
R. M. MITCHELL, R.R. No. 1, Freeman, Ontario.

GRAND VIEW FARM SHORTHORNS
Herd headed by Lord Rosewood = 121676 = and by Proud Lancer (Imp.). Have a few choice bull calves and heifers left, sired by Ecanna Favorites, a son of the famous Right Sort (Imp.).
W. G. GERRIE C.P.R. Station on farm. Bell 'Phone. BELLWOOD, ONTARIO

1854 Maple Lodge Stock Farm Shorthorn 1919
Cattle and Leicester Sheep "Hean Dorothy Star" (Imp.) at head of herd—
1 red bull calf, dam and grandam R.O.P. cows, 13 months and two roan calves younger. For sale now. Lucan Crossing 1 mile east of farm. Miss Charlotte Smith, Clandeboye, R. R. 1, Ont.

Fair
66
HEAD
ts of On-
emore
gsville
Mary's
connell
swater
gsville
lacétown
s Sale
herds in
re offer-
for the
ls. The
Pres.
ph, Ont.



KELMSCOTT ACROBAT 4
Bred and Owned by R. W. Hobbs & Sons,
Champion Milking Shorthorn Bull at the
Royal Show, Manchester, 1916.

**The Kelmscott Herd of
PEDIGREE MILKING
Shorthorns, Flock of
Oxford Down Sheep and
Stud of Shire Horses**

THE PROPERTY OF
Robert W. Hobbs & Sons
Kelmscott, Lechlade, Gloucestershire,
England

SHORTHORN CATTLE

One of the oldest and largest pedigree herds in existence. Milk, Flesh and Constitution studied. Daily milk records kept. Numerous prizes won for inspection, milking trials and in butter tests. The Gold Medal, Spencer and Shirley Challenge Cups were won at the London Dairy Show in 1914. The Fifty-Guinea Challenge Cup for the best group of dairy Shorthorns at the Royal Show was won for the third successive year at the last exhibition at Manchester in 1916, also two firsts, one second and one third prize. All cows in milk, and the stock bulls have passed the tuberculin test. Bulls and bull calves on sale at prices to suit all buyers.

OXFORD DOWN SHEEP

The flock was established in 1868, and consists of from 1,000 and 1,250 registered Oxfords. Numerous prizes for many years have been won at the principal shows. At the last Royal Show first prize was taken for a single Ram Lamb and first prize for pen of Ram Lambs. Rams, Ram Lambs and Ewes always on sale.

R. W. Hobbs & Sons are breeders of high-class Shires. Sound active colts and fillies always on sale.

TELEGRAM HOBBS, LECHLADE
Inspection Cordially Invited

**Maple Shade
SHORTHORNS**

A dozen young bulls imported and my own breeding at moderate prices.

W. A. DRYDEN

Brooklin - - - Ontario

**The Get of Burnbrae Sultan =80325 =
Shorthorn Bulls for Sale**

1. Successor =127444 =, white, born March 29, 1918; dam Rosy Bud =99834 =, by Waverley =72804 =.
2. Ravenscraig =12745 =, roan, twin, born Nov. 19, 1918; dam Meadow Beauty 3rd (imp.), by Ben. Lomond (80468).
3. Meadow Crown, white, twin with Ravenscraig.
4. Royal Sultan, born 15 Feb., 1919, own brother to Successor.

Females in calf and with calves at foot.
A. GORDON AULD
R. No. 2, Guelph, Ont.
Arkel C.P.R.

Mardella Dual-purpose Shorthorns

8 choice young bulls; 30 females, cows and heifers. All of good size, type and breeding. Herd headed by The Duke; dam gave 13,599 lbs. milk, 474 lbs. butter-fat. He is one of the greatest living combinations of beef, milk and Shorthorn character. All priced to sell. Write, call or 'phone.

THOMAS GRAHAM, Port Perry, R.R. 3, Ont.

Shorthorns—Cotswolds

We have at present a few Cotswold ram lambs. Good ones and priced right. Also have one 9 months red bull as well as five two-year-heifers in calf to King Dora (imp.). Rhode Island Red yearling hens \$2.00 each.

SOCKETT BROS., ROCKWOOD, ONT.

DUAL-PURPOSE

Shorthorns

Present offering 6 young bulls. Red & Roans, also a number of females. They have size, quality and breeding from good milking dams. Prices Moderate. Satisfaction guaranteed.

Chas. Graham, Port Perry, Ont.

They have to take exercise in coming out for food, and their quarters are always dry. They will produce larger and stronger litters than are possible from sows wintered in limited quarters, no matter how comfortable the latter may seem to be.

English Pedigree Stock News.

The value of the pedigree live stock exported from England during September was £52,908, which brings the current year's aggregate up to £2,013,388, or 67 per cent. more than the figures of 1918 at the same period. So far as the year has gone, 4,280 cattle, worth £468,766 have been sent abroad, Argentina being the keenest buyer of some 788 head, reputed (according to the official returns) to be worth £220 16s. 7d. apiece. Some of the cattle, of course, are worth many thousand pounds each. The United States has taken 714 head, which are officially recorded as worth £57 each—so much nonsense, if one speaks to the American buyers operating over here and finds out what they are really paying for good class breeding stock.

During September, Argentine buyers took away from England 284 sheep worth £36 1s. each, and the United States of America 454 head at £14 4s. 3d. apiece, i. e., according to the official returns. All told this year we have exported 4,947 sheep, worth £110,839, or a general average of £22 8s. Uruguay is buying many sheep for her ranches and she has secured so far this year 304 head worth £51 0s. 11d. each. The full Argentine total is 1,394 head, worth £38 9s. apiece, and that of America is 1,007 head at £13 19s. 9d. each; while Canada's purchases have been 631 head, worth £13 6s. 3d. each.

Pig exports have brightened considerably since the autumn. Some 372 head were shipped abroad in September, at an average value of £15 19s. 5d. each. So far this year 698 pedigree pigs have been sent away, worth £11,651, or an average of £16 13s. each. Argentine is buying again, and she has taken twenty-three, of the value of £40 7s. each.

During the year we have exported from England 2,457 horses, worth £402,884, or an average value of £163 19s. 5d. each. We have, however, imported 1,884 head, worth £164,326 or £87 6s. each.

Suffolk horses—or rather mares—are making big money in England. At the dispersion of the Erwarton Stud, belonging to W. H. Allen, Harkstead, top price filly foal made 600 gs. to W. P. Cullen, Cressing, Temple, Braintree. Joseph Watson, Sudbourne, who has now one of the finest collections of Suffolks, bought a mare for 1,050 guineas. Her foal made 360 guineas. S. W. A. Noble, Wretham, bought six mares and fillies at an average of £418 5s. H. W. Packard purchased one filly foal at 520 guineas, and H. W. Daking, Thorpe-le-Soken, bought a two-year-old filly for 600 guineas.

The export trade in Hackney horses has been very active of late. Breeders have sold 128 animals to Holland, 39 to the Japanese Government, and 19 to the Italian Government for breeding artillery horses. According to an official return issued by the Hackney Horse Society, there have been exported 217 animals of the breed since January 1, and in addition to the countries mentioned, the United States have purchased 10, France 6, Norway and Colombia 4 each, Sweden 3, Spain 2, and Canada and Belgium 1 each. Hackneys with good action are commanding good prices, and are sought for on account of their sound constitution and their courage.

ALBION.

**Questions and Answers.
Miscellaneous.**

Learning to Run Gas Engine.

In a recent issue of "The Farmer's Advocate" I noticed an advertisement of a school for teaching the operating of gasoline engines. This school was in Detroit. Is there any such school in Canada?

F. B.

Ans.—The Hemphill Trade Schools, Ltd., are in Winnipeg, Man., with branches in several cities in the West. The operating of gasoline engines, automobiles, stationary tractors, marine, fire and aeroplane engines is taught. We do not know of any schools in the East.

Simplicity



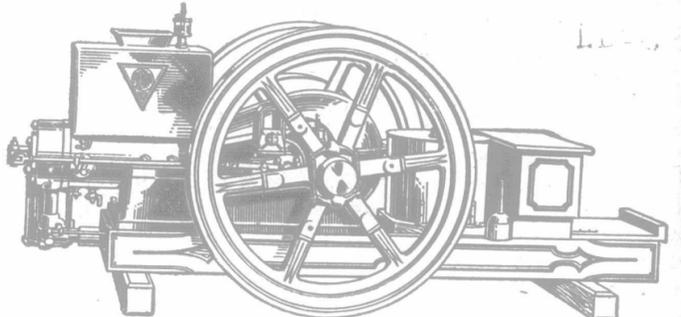
THE ALPHA Gas Engine is remarkably simple in construction, which makes its operation very simple—it runs whenever you want it to run.

Trade Mark

The ALPHA has no electric batteries, no spark coil. It starts and operates on the magneto, which is so simple and well made that it is guaranteed to last as long as the engine. All other parts of the ALPHA are equally simple in design and superior in workmanship.

That is why the ALPHA has the reputation of being the best engine buy on the Canadian market.

If you don't know who handles the ALPHA in your vicinity, write nearest sales headquarters for his name.



THE DE LAVAL COMPANY, Ltd.

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

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

BRAEBURN SCOTCH SHORTHORNS

150 Head 100 Breeding Females
Herd headed by Nero of Cluny (imp.)

I have at present twelve young bulls that are now nearing serviceable age. The majority are sired by my present imported herd sire, and we guarantee them as good individually as the get of any other one sire in Canada. They are nearly all roans, and are priced to sell. Can also spare some breeding cows in calf to Nero of Cluny (imp.).

CHARLES MCINTYRE, Scotland, Ontario
Brantford 7 miles. Oakland 1 mile. L. E. N. Electric R.R. Cars every hour.

SCOTCH SHORTHORNS

PRESENT OFFERING:

6 imported bulls, 4 home-bred bulls, 25 imported cows with calves at foot or forward in calf. Half a mile from Burlington Jct. 'Phone or telegraph, Burlington.

J. A. & H. M. PETTIT - - - Freeman, Ontario

SPRUCE GLEN FARM SHORTHORNS

A number of good young bulls and a few extra good heifers for sale. You should see them
JAMES McPHERSON & SONS, DUNDALK, ONTARIO

Irvin Scotch Shorthorns—Herd Sire Marquis Supreme—by Gainford Marquis (imp.).

present three young bulls of serviceable age and one younger, all sired by our herd sire and from Scotch bred dams. Good individuals and the best of pedigrees. Also pricing a few females.
J. WATT & SON, ELORA, ONT.

Spring Valley Shorthorns—Herd headed by Sea Gem Pride =96365 =. Present offering includes two real herd headers. One imported in dam, the other by Sea Gem's Pride and one by our herd sire and few females. Write for particulars.
KYLE BROS., R. 1, Drumbo, Ont.

Dual-Purpose Shorthorns—Herd headed by Dominator 106224, whose two nearest dams average 12,112 pounds of milk in a year. Several bulls from six to nine months, priced for quick sale. Inspection of herd solicited.
WELLDWOOD FARM, Farmer's Advocate, London, Ont.

20 Bulls—SPRUCE LAWN—100 Females—Clydesdale, Shorthorns, Yorkshires, Herd headed by Imported Golden Challenger 122384. A Rubyhill Bred by Earl of Northbrook, by Ascot Challenger, bred by L. De. Rothchild. Special bargains in farmers' bulle. Cows and heifers in calf, G. T. R. and P. O. Ontario.

ROBERT MILLER, Stouffville, Ont., Has EIGHT of the best young bulls that he fully bred. Also several cows and heifers, some of them with calves at foot, others in calf to Rose-mars Sultan, the Grand Champion bull at head of the herd. Everything of Scotch breeding. The prices are very reasonable, and though the freight is high, it will be paid.

SHORTHORNS AT A SACRIFICE

3 bulls 16 to 25 months, must be sold. Shropshire ram lambs and one shearling. Prices reasonable.
G. T. R., MYRTLE, C. P. R. WM. D. DYER, COLUMBUS ONT., Brooklin,

WALNUT GROVE SHORTHORNS AND OXFORD SHEEP

We are offering choice young heifers and bulls by our herd sires, Gainford Eclipse and Trout Creek Wonder. Also a few yearling and ram lambs for sale.

DUNCAN BROWN & SONS, Shedden, Ontario. P. M. M. C. R.

GLENGOW SHORTHORNS AND COTSWOLDS

Six-year-old Cotswolds rams. These are big lusty fellows and in good condition. I also have four Shorthorn bulls of serviceable age. Write for prices and particulars.
Stations: Brooklin, G.T.R.; Oshawa, C.N.R.; Myrtle, C.P.R. **WM. SMITH, M.P., Columbus, Ont.**

ity

is remarkably
makes its opera-
never you want

electric batteries, no
s on the magneto,
de that it is guar-
of the ALPHA
ip.

of being the best

in your vicinity,



NY, Ltd.

IN CANADA.
am Separators
Alpha Churns
uest.

VANCOUVER

ORLD OVER

THORNS
breeding Females

The majority are sired
ly as the get of any other
also spare some breeding
Scotland, Ontario
our.

THORNS

ot or forward in calf.
ilington.

man, Ontario

ORTHORNS

You should see them

K, ONTARIO

erd Sire Marquis Su-

me—by Gainford Mar-

is (Imp.). We have at

our herd sire and from

a few females.

ride #96365. Present

herd headers. One im-

Sea Gem's Pride and

particulars.

I. Drumbo, Ont.

tor 106224, whose two

ounds of milk in a

on of herd solicited.

ivocate, London, Ont.

ns, Yorkshires, Herd

Northbrook, by Ascott

ows and heifers in calf,

n C. P. R. Millbrook,

t young bulls that he

ood ages and beaut-

others in calf to Rose-

Scotch breeding. The

CRIFICE

one shearing. Prices

US ONT., Brooklin,

FORD SHEEP

clipse and Trout Creek

P. M. M. C. R.

SOLD THE FARM

Pure-Bred

44 HOLSTEINS 44

The entire Verstella Herd selling without reserve
at the farm near ST. THOMAS, ONT.

Tuesday, December 2nd, 1919

This Sale also includes Horses, Hogs, Seed Grains, Field Roots, Alfalfa
Hay, Farm Implements, Household Furniture and everything
that goes with a 200 acre farm.

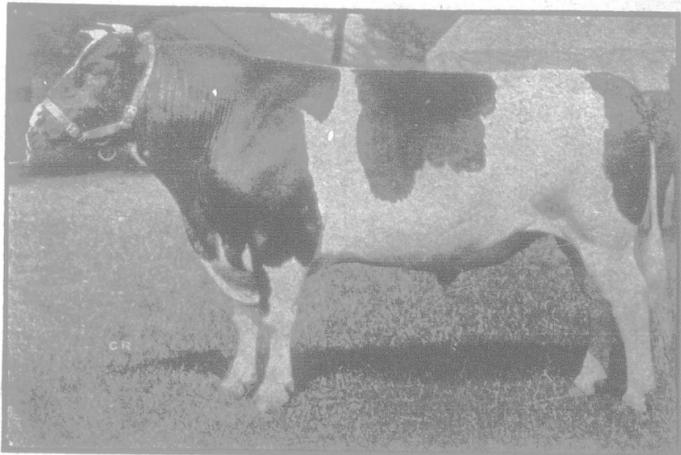
General Sale, 10 a.m.; Cattle Sale, 1 o'clock p.m.

Included in this sale are—11 daughters of Sir Colantha Wayne with records
up to 25.50 lbs. of butter in 7 days. A sister to this sire sold recently in the
Chicago Sale for \$7,500; 3 daughters of Flora's Sarcastic Lad with average
records of 25.61 lbs. of butter in 7 days and one of which has given 102 lbs.
of milk in one day; 12 sons and daughters of Pontiac Korndyke Plus, a
brother to May Echo Sylvia; 10 daughters of Lakeview King Inka De Kol,
bred to start freshening shortly after sale date, and 6 daughters of Sarcastic
Wayne De Kol.

Every Animal Except Present Herd Sire Bred On The Farm.

For catalogues address:

DAVID CAUGHELL, Owner,



St. Thomas, Ont.

R. R. No. 8

Auctioneers:

LOCKE & McLACHLIN

T. MERRITT MOORE

Raymondale Holstein-Friesians

A herd sire of our breeding will improve your herd. We have sons of our present sire, Pontiac
Korndyke of Het Loo (sire of \$12,750 Het Loo Pieterje), and also sons of our former sire,
Avondale Pontiac Echo. Several of these are of serviceable age, and all are from good
record dams. Quality considered, our prices are lower than anywhere else on
the continent. These youngsters should not remain long. Write to-day.

RAYMONDALE FARM
Vaudreuil, Que.

D. RAYMOND, Owner
Queen's Hotel, Montreal

Hamilton House Holstein Herd Sires

Our highest record bull for sale at present is a 4 months calf from Lulu Darkness
30.33 lbs. and sired by a son of Lulu Keyes 36.56 lbs. His two nearest dams therefore
average 33.44 lbs. and both have over 100 lbs. of milk per day. We have several
older bulls by the same sire and from two and three-year-old heifers with records
up to 27.24 lbs. All are priced to sell.

D. B. TRACY, Hamilton House, **COBOURG, ONT.**

Cedar Dale Farm—The Home of Lakeview Johanna Lestrange, the \$15,000 sire—
He is the son of the 38.06-lb. cow, Lakeview Lestrange, and is our
chief sire in service. We are offering a few females bred to him and also have a few bull calves sired
by him, at right prices. Other older bulls, sired by our former herd sire, Prince Segis Walker, son of
King Segis Walker. **A. J. TAMBLYN,** Cedar Dale Holsteins (C. N. R. station one mile)
Orono, Ontario

CLOVERLEA FARM HOLSTEIN FRIESIANS

Our present offering consists of two choice young bulls ready for service. Priced
right for quick sale. Write **GRIESBACH BROS.,** Collingwood, Ont. R.R. No. 1

PIONEER FARM HOLSTEINS

My present sales' list includes only bull calves born after Jan. 1st, 1919. These are priced right.
WALBURN RIVERS & SONS
R.R. No. 2, Ingersoll, Ontario

Questions and Answers.

Miscellaneous.

Value of Silage.

What is the value of 13 feet of silage?
A. S.

Ans.—The dimensions of the silo are
not given, consequently it is impossible
to figure out the number of tons in 13
feet of silage. Silage has been figured at
between \$4 and \$5 per ton. A cubic
foot of silage will weigh approximately
30 lbs.

White Wash Receipt.

I am planning on whitewashing our
horse and cow stables this fall. I am
told that if glue and salt are mixed with
the lime it will not come off on one's
clothes. Could you give me a receipt
for preparing and mixing this white-
wash.
E. F. A.

Ans.—The following is a receipt for
whitewash which has proven satisfac-
tory: Slake a half bushel of lime
and strain it through a fine sieve, then
add a peck of salt, previously dissolved
in warm water; three pounds of ground
rice boiled to a thin paste and stirred
in boiling hot; one-half pound of powdered
Spanish whiting, and a pound of glue
that has been dissolved over a slow fire.
Add five gallons of hot water to the
mixture. This material should stand
for a few days before using, and gives
best results if applied hot. The wash is
suitable for either inside or outside work.
It may be applied with a spray pump.

Important !! 30-lb. Herd Sire for Sale—Gipsy Pontiac Cornucopia, No. 32700
(calved Nov., 1917), a show bull, guaranteed right. His dam is a 30.71-lb.
granddaughter of Sir Waldorf De Kol, and his sire is May Sylvia Pontiac Cornucopia. The latter
bull, it will be remembered, is from a daughter of the great May Echo Sylvia, and got by the 44-lb.
bull, Spring Farm Pontiac Cornucopia. Come and see his calves. We also have several of his sons
for sale. **JOSEPH PEEL,** Port Perry, Ontario.

"PREMIER HOLSTEIN BULLS—Ready for Service.
I have several young bulls from dams with 7-day records up to 32.66 lbs. of butter, 755.9 lbs. of
milk, with 110 lbs. of milk in one day—over 3,000 lbs. in 30 days. All are sired by present
herd sire which is a brother to May Echo Sylvia. Step lively if you want these calves.
H. H. BAILEY, Oak Park Farm, **PARIS, ONT.**

CHOICE HOLSTEIN FEMALES !!

I could spare ten or twelve two and three-year heifers, daughters of Baron Colantha Fayne and
Louis Prilly Roubie Hartog. All are bred to freshen early to our 34 lb. sire. Also have a few young
bulls, one from a 29.95 lb. cow that has milked 105 lbs. per day. Don't delay, this offering is
priced right. **T. W. McQUEEN,** Tillsonburg, Ont.

4 HOLSTEIN BULLS FOR SALE

from 2 to 7 months old. 2 grandsons of the 26,000 lb. cow. 2 great grandsons one from a 23 lb. jr.
4 years old. All sired by Hillcrest Rauwerd Vale whose two nearest dams average almost 30 lbs. of
butter in 7 days and almost 26,000 lbs. milk in 12 months. Cheap, considering quality.
W. FRED FALLIS, MILLBROOK, ONTARIO.

6 BULLS BY KING SEGIS PONTIAC DUPLICATE
Brother to the \$50,000 bull. Three of these are ready for service and all are show calves. Write us
also for females. We are pricing a number of heifers, bred to our own herd sire, Sylvius Walker Ray-
mondale, a grandson of the great May Echo Sylvia. We now have bull calves a few months old by
this sire. Let us know your wants. **R. W. WALKER & SONS,** Manchester Station, G. T. R.
Port Perry, Ont. R. R. No. 4.

Evergreen Stock Farm Registered Holsteins

Our Motto: Choice individuals—the profitable producing kind. Nothing for sale now, but get in
line early for your next herd sire.
A. E. HULET (Oxford Co., G.T.R.) **NORWICH, ONTARIO**

SPRINGBANK R.O.P. AYRSHIRES

Our Ayrshires win in the show ring and they fill the pail. We hold more present R.O.P. Champion
records than any other herd in Canada. Young bulls and females by present
herd sire Netherton King Theodore (Imp.)
A. S. TURNER & SON, (Railway Station Hamilton) **RYCKMAN'S CORNERS, ONT**

Silver Stream Holsteins—Special offering—Four choice bulls fit for service,
sired by King Lyons Colantha, the records of his six
nearest dams average 30.10 lbs. butter in 7 days, and
from R. O. P. tested dams. Individually as good as their breeding. Write at once for particulars
and price, or better, come and see them.
JACOB MOGK & SON, R. R. 1, Tavistock, Ont.

Montrose Holstein - Friesian Farms

The Home of 20,000-lb. Cows

Write us about our herd of 20,000-lb. R.O.P. producers. Every one is a choice indi-
vidual—the breeding is choice, and they are rearing their offspring under choice,
but normal conditions. We have young bulls for sale. VISITORS WELCOME.

R. J. GRAHAM, Montrose House Farms **BELLEVILLE, ONTARIO**

Hospital for Insane, Hamilton

Yes, all bulls of serviceable age are sold, but several of six months and younger, from
one of the best sons of King Segis Alcartra Spofford, and our
best dams will be sold at reasonable prices.

APPLY TO SUPERINTENDENT

Manor Farm Holstein-Friesians

If it's a herd sire you want, write me. I have sons of both my senior and junior sires, King
Segis Pontiac Posch and King Korndyke Sadie Keyes. All from good record dams.
Choice bull calves at present to offer—average for two nearest dams, up to 34.71 lbs. butter to
seven days. Correspondence solicited. Visitors welcome.

GORDON S. GOODERHAM, Clarkson, Ont.

Stations: Clarkson and Oakville. Farm on Toronto and Hamilton, Highway
Holstein Bulls—A few ready for service, one from a 32.7-lb. dam. He has a
33.94-lb. maternal sister. Baby bulls by "Ormsby Jane Burke"
and "Ormsby Jane Hengerveld King," grandsons of the 49-lb.
cow, "Ormsby Jane Segis Aaggie," the only twice 40-lb. cow of the breed. Also females.
R. M. HOLTBY, R. R. 4, Port Perry, Ont.

Drainage.

1. I have a well drilled 100 feet deep,
Could this be used as an outlet for tile
drains on my farm?

2. What makes my Ford so hard to
crank? I have great difficulty in starting
it on the magneto. **G. M.**

Ans.—1. It would be a very un-
satisfactory outlet.

2. It is not uncommon for cars to
crank hard when the weather gets cold.
It is possible that the magneto needs
cleaning.

Black Oats—Chimney Sweating.

1. Where can I obtain main black
oats?

2. What will remove the waxy deposit
from the inside of a chimney? This
deposit settles on the sides of the chimney
and seems to cause the pipes to smoke?
W. B.

Ans. 1. These oats may possibly be
secured from some of the seed houses
advertising in our columns. We do
not know of any farmer having these
oats on hand.

2. We do not know of any material
that will successfully remove this deposit.
If any of our subscribers have been success-
ful in removing it, we would be pleased
to hear from them. This deposit is
frequently the result of improper draft,
or of the chimney being cold and causing
dampness. Having an opening in the
pipe just above the stove has overcome
the trouble from the chimney sweating.



Cut Your Own Feed

Our feed cutters embody the latest improvements for lessening the danger and inconvenience of cutting, and do their work quickly, easily, satisfactorily. There's a machine that will exactly meet your requirements among the hand and power outfits of

Peter Hamilton Feed Cutters

They are made of the best materials throughout, and the knives are adjustable for cutting all kinds of fodder. Write To-day for Free Booklet PETER HAMILTON CO., Limited, Peterborough, Ont.

CREAM OF COURSE!

We want more CREAM. Every CREAMERY says that. But we go further—We NEED more CREAM to supply an actual and constantly growing trade. Therefore, when YOU ship to us we do not have to seek an outlet, but it is here at hand, ready to take all we can make. This means prompt sales. We guarantee fair dealings, and will make it worth your while. Give us a trial, and DO IT NOW. References—Any Bank.

Mutual Dairy & Creamery
743 and 745 King St. W., Toronto

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

LONDON - ONTARIO

FEEDERS

Let us place your name on our mailing list for weekly quotations on Linseed Oil Cake Meal, Cotton Seed Meal, Gluten Feed, Oats, Feed Corn, Bran, Shorts, Hominy Feed, Feeding Molasses, and all kinds of hog and cattle feeds. Write us to-day.

Allen - Kelley Company
214 Board of Trade Bldg., Toronto

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.

JUST JERSEYS
Baldwin's
REGISTERED
COATICOOK, QUE.

City View Ayrshires

Two heifers to freshen in April. One heifer just fresh. Young cows due Oct., Nov., and Dec. James Begg & Son, St. Thomas

Choice Offerings in Ayrshires
AT SPECIAL PRICES. Several young bulls of serviceable ages. All from R.O.P. sires and dams. Come and see them. JOHN A. MORRISON, Mount Elgin, Ontario.

Gossip.

C. E. Wood, whose advertisement of Leicesters appears in another column of this issue, has both ewe and ram lambs for sale from his winning ram on the 1917 show circuit. Mr. Wood aims at securing good wool and size, as well as quality.

The National Federation of Co-operative Live Stock Shippers is being organized for the benefit of shippers throughout the United States. A meeting to perfect the permanent organization will be held on December 3 and 4, on the third floor of the Live Stock Record Building, Union Stock Yards, Chicago. On the first day addresses will be given by such men as Wallace, McKerrow, Myers, Curtis, Coverdale, Danforth, and Hibbert. The meeting on the second day will be devoted to the adoption of the constitution and by-laws. The work is this regard that is being done across the line might be of benefit to Canadian live stock breeders. Undoubtedly, many pointers regarding such an organization will be obtained by attendance at this meeting.

Caughell's Holsteins Dec. 2.

One of the most important sales advertised in these columns this season, was announced last week over the name of David Caughell, R. R. 8, St. Thomas, Ont. Mr. Caughell, probably one of the best farmers and breeders in Western Ontario, has sold his two-hundred-acre farm, and his herd which comes before the public on December 2nd, furnishes one of the best opportunities for breeders to strengthen their herds and new beginners to lay in foundation stock that is ever offered in Ontario. As seen recently by a representative of this paper, the herd shows every evidence of being one of the best commercial herds we have seen come on the market in years. The following is a few of the more noticeable breeding cows, and in nearly every instance, each one of those listed, has two or more daughters selling. Molly Mercedes is a 21,000-lb. R. O. P. cow, with 102 lbs. of milk for her highest day. Rosa Dorliska a fine, big, eight-year-old cow has 24.75 lbs. of butter in seven days, while Susie Dorliska, a full sister, has 24.32 lbs. Betsy Colantha, probably the largest cow in the herd, has 25.50 lbs., and Daisy Colantha, her full sister, although never tested, is now a four-year-old and looks to be one of the best offerings in the sale. There are a half dozen or more good record cows listed, and as every female offered has been bred on the farm, they are, of course, of much the same breeding as those mentioned above. There will be a number of the breeding cows fresh by sale time, and the majority of the others, including the two and three year heifers will be freshening between sale date and the middle of January. All are bred to the present herd sire, Pontiac Korndyke Plus, which is a brother of May Echo Sylvia, and which will also be sold. The offering throughout is highly recommended, and intending purchasers will find there will be no disappointments on sale day. In addition to the pure-bred cattle, the other farm stock and implements will also be sold on the same date. Other items which many dairymen might be interested in is a quantity of nicely-cured Alfalfa Hay and a large quantity of field roots, all of which will be sold by auction. Application for catalogue and sale bills should be made to David Caughell, R. R. 8, St. Thomas, Ont. Kindly mention this paper when writing.

Art.—The artist dipped his brush in a bucket of paint and wiped it across the canvas several times horizontally. When he had done this he took his labor in hand and carefully placed it in an elaborate frame.

"What's the idea?" his boon companion inquired.

"Impressionistic study."

"Do you mean to tell me that is a finished painting?"

"Certainly."

"What are you going to call it?"

"A village street as seen from the rear seat of a motor-cycle."

SYDNEY BASIC SLAG

Unquestionably The Best Fertilizer For Pastures

In "Canadian Countryman", August, 9, 1919, appears an article "Care of Pastures" by B. C. Tillet. Mr. Tillet says in part:—

"It is no easy matter once a pasture has been overfed to bring it back to its former rich condition. Artificial fertilizers are very useful in a case of this sort but the right kind must be used or it will be a waste of time. The kind to use is Basic Slag and it should be used at the rate of four or five hundred pounds per acre. Where the land has been in pasture a long time two tons of ground lime stone will also be highly beneficial. Acid Phosphate may be used instead of Basic Slag if the soil is exceptionally rich in lime and should be applied at the same rate as the Slag. Generally Basic Slag is preferable."

Many Ontario farmers know from experience that Sydney Basic Slag produces wonderful results when applied to pastures, but there are many localities where it has never been introduced and we are anxious that you should learn what it will do for you. We would appreciate hearing from reliable farmers in such localities who would be interested in knowing what Sydney Basic Slag will do for them. We believe that our proposition will appeal to them. May we send you further particulars?

THE CROSS FERTILIZER CO. LIMITED

Sydney - Nova Scotia

Address inquiries to our General Sales Agent, A. L. SMITH, 220 Alfred Street, KINGSTON, ONT.

Prospect Farm Jerseys

We have choice cows and heifers for sale, registered and high grades. 125 head of Jerseys in the herd. If you have a growing family, it is your duty to provide them with nature's greatest food in abundance, good, clean, healthful, wholesome milk. There are no substitutes for Jersey milk. Buy one and be convinced. Get the "Milk Habit." We have also for sale a fine lot of bull calves. Correspondence answered promptly. If possible, come and see them.

R. & A. H. BAIRD, R.R. 1, New Hamburg, Ontario

BRAMPTON JERSEYS

The Largest Jersey Herd in the British Empire

At Toronto Exhibition, 1919, we won twenty-five out of twenty-seven first prizes. We now have for sale first-prize young bulls from R.O.P. dams, as well as females of all ages.

B. H. BULL & SONS - Brampton, Ontario

Laurentian Producing Jerseys—The oldest bull we have at present is a year-old youngster sired by our herd sire, Broadview Bright Villa, No. 5630, and from Brampton Astoria, one of the best imported cows in the herd. We also have others younger of similar breeding, as well as a few bred heifers for sale. FREDERICK G. TODD, Owner, 801 New Birks Bldg., Montreal, P.Q. Farm at Morin Heights, F. J. Watson, Mgr.

The Woodview Farm JERSEYS CANADA'S MOST BEAUTIFUL JERSEY HERD Herd headed by Imported Champion Rower, winner of first prize with five of his daughters on the Island of Jersey, 1914, second in 1916, and again first in 1917. We are now offering for sale some very choice bull calves, ready for service, sired by imported bulls and from Record of Performance imported prize-cows and show our work cows. London, Ontario JNO. PRINGLE, Prop

Edgeley Bright Prince—a son of Sunbeam of Edgeley, R. O. P. champion, sired by a son of Viola's Bright Prince is for sale. He is 3 years old, sure and active. Won third prize in aged class at Toronto and London, 1919. Write for price. JAMES BAGG & SONS (Woodbridge C.P.R., Concord G.T.R.) EDGELEY, ONT.

Homestead Farm R.O.P. Ayrshires—At the head of our herd at present we have a used on the daughters of our former sire, Garlaugh Prince Fortune (imp.). Young cows freshen this fall and winter. MACVICAR BROS., 'phone 2253 Harrietsville, Belmont, R. R. No. 1, Ont.

Glenhurst Ayrshires—Imported and Canadian-bred Herd. Established 1880. come to "Glenhurst." At present we have a few young cows—both show cows and producers, to our herd sire, Mansfield Mains Sir Douglas Haig (imp.). Write us also for our list of young bulls. Prices right. Satisfaction guaranteed. JAS. BENNING (Summerstown Station, G.T.R.) Williamstown, Ont.

SLAG

Best
ures

9, appears
Mr. Tillet

has been
mer rich
y useful
must be
kind to
at the
er acre.
ng time
e highly
used in-
tionally
e same
Slag is

erience
nderful
ere are
een in-
should
would
in such
owing
We
o them.

LIMITED

ntia
ON, ONT.

eyes

ad of Jerseys in the herd
greatest food in abund-
r Jersey milk. Buy
a fine lot of bull
and see them.

urg, Ontario

EYES

pire
izes. We now have for
of all ages.

ton, Ontario

ave at present is a year-
our herd sire. Broad-
ported cows in the herd.
for sale.

Montreal, P.O.

Y HERD

of first prize with five
1916, and again first in
bull calves, ready for
formance imported prize-
nt. We work our show

of Edgeley, R.O.P.

son of Viola's Bright.
He is 3 years old, sure
ite for price.

GELEY, ONT.

t present we have a

Armour. He is being
ung cows freshen this

No. 1, Ont.

Established 1880.

w cows and producers,
kind—and all are bred
our list of young bulls.

amtown, Ont.

OXFORDS

Summerhill Flock

If you want breeding stock, buy now.
First class Rams and Ewes different
ages. Special offering in Stock Rams.

Leading flock for past 35 years, winning
almost all the prizes and championships
at Calgary, Edmonton, Saskatoon, Bran-
don, Regina, Toronto and London 1919.

Write us for prices

Peter Arkell, & Sons, R.R. 1, Teeswater, Ont.

Maple Shade Farm

Imported Shropshire
ewes served by best
imported rams, very
desirable for founda-
tion flocks.

W. A. DRYDEN,

Brooklin, - - - Ontario

In Carcase Competition SINCE 1900

Suffolks crossed with no less than ten different
breeds have won half the total awards in the
Cross-bred Classes at the Great London, England,
Smithfield Shows, leaving half to be claimed by all
other breeds combined. We have some strong
lamb and yearling rams for sale.

James Bowman, Elm Park, Guelph, Ont.

Shropshires and Clydesdales For Sale

Ram Lambs for sale—A first class lot of rams,
good growthy fellows, good size and well covered
with fine wool; also one 3-year-old ram, a sure
stock ram, and two Clydesdale Stallions, one
imported and one Canadian, bred right, every way
inspected and passed; also several Clydesdale
geldings and mares.

W. F. Somerset, - - - Port Sydney, Ont.
Long Distance Phone.

Dorsets and Oxfords

I have at present a choice offering in shear-
ing and ram lambs (both breeds). We
were unable to show this year, but these
rams are the choicest lot we ever bred.
Also have four two-year-old stock rams, as
well as a limited number of shearing and
two-shear Dorset ewes. Prices right.

S. J. Robertson (C.P.R.) Hornby, Ont.

Oxford Down Sheep—Present offering:

This year's crop of
ram and ewe lambs; also a few yearlings and two
young Shorthorn bulls. Prices reasonable.

JAS. L. TOLTON, Walkerton, R. 3, Ontario

Shorthorns and Oxfords for Sale—Two

young bulls, one a
choice roan grandson of Right Sort; also ewes
and lambs, either sex.

GEO. D. FLETCHER, R.R. No. 1, Erin, Ont

Bowhill Leicesters—A few two-shear rams in

show condition, and several
shearlings and lambs, both rams and ewes. Also
Shorthorn bulls and heifers.

GEO. B. ARMSTRONG, Teeswater, Ont.

Shropshire Sheep—40 shearing ewes, 30 two

and three-shear ewes, most-
ly from imported stock. A few choice shearing
rams; also ewe and ram lambs.

Oshawa all railroads. C. H. SCOTT,
Long-distance phone. Hampton P.O.

Shropshire and Cotswold Sheep—A fine lot

of yearling rams and ram lambs,
large and good quality, imported and home-bred;
also ewes, all ages. Prices very reasonable.

JOHN MILLER, Claremont, Ont.

LEICESTERS

Of good size and quality.

C. E. WOOD, - - - Freeman P.O., Ontario

Elm View Oxford Downs—Thirty selected

yearling rams for
flock headers. Thirty yearling and two-year-old
ewes; all first-class. Write for prices.

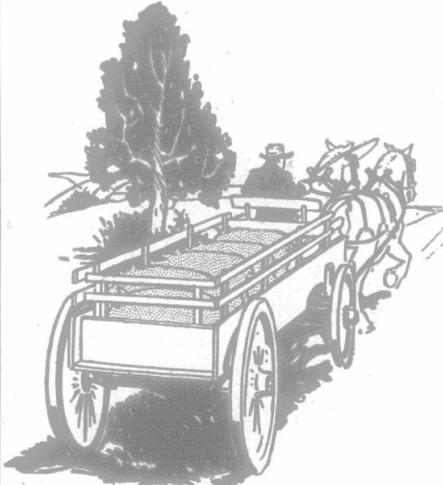
Bruce A. McKinnon, R.R. 1, Hillsburg, Ont.

Shropshire yearling ewes bred to Bibby's

84 (imp.) ram and
Two Shorthorn Bulls.
Two Clydesdale Stallions.

W. H. PUGH, - - - Myrtle Station, Ont.

The Most Profitable Method



Catch the Early
Markets by Using

WHAT is your time worth?

Rounding up your feed
materials in the old way takes
time; so does figuring of rations and
mixing. Feeds on the farm vary in
quantity and quality. The ration is
liable to be too rich—or skimped.
There is loss both ways, either in loss
of feed at high prices, or loss of bacon
due to imperfect feeding. In short,
ordinary feeding methods cannot be
accurate and economical.

Monarch Hog Feed

is calculated with accuracy by
experts who have handled ex-
actly the same hog feeding prob-
lems as you have. They know
to a certainty just what Cana-
dian hogs require. The special
facilities that we have at our mills and
you have not, insure Monarch Feeds
always being properly balanced and
thoroughly mixed. With these advan-
tages we have produced a feed that will
not only finish your hogs quicker and
in better condition for market, but it
will mean more and better bacon—the
good, firm, solid quality that gets the

attractive prices for you. It means least
cost per pound gain. Guaranteed anal-
ysis: protein, 15%; fat, 4%.

Monarch Hog Feed has all the feed-
ing advantages of corn products, shorts
and digestive tankage. Owing to the
splendid balance in this ration, these
feeds are easily digested. Hogs scramble
for this highly palatable feed. It gives
size, vigor and stamina. It lowers your
cost of production, and at the same
time gets you the quality prices.

Order a ton from your dealer. You
can depend upon deliveries. If your
dealer cannot supply you, write us
direct, giving dealer's name.

MONARCH DAIRY FEED

has guaranteed analysis of 20%
protein and 4% fat. It is a prop-
erly mixed combination of Oil
Cake Meal and Cotton-seed Meal
with the bulky feeds, bran and
corn meal. Though very rich, en-
suring splendid results, it can be
fed alone.

SAMPSON FEED

This general purposes feed is
somewhat similar to Monarch Hog
Feed, except that oil cake meal is
used instead of digester tankage;
it gives results for both cattle and
hogs. Guaranteed analysis: 10%
protein and 4% fat.

The Campbell Flour Mills Co., Ltd., West Toronto 14

Pure-bred Yorkshires

We have a number of litters ready to wean and a number of
sows just bred and several due to farrow and
a few boars ready for service.
Our stock all show good breeding and excellent type.

F. W. DARBY, FERGUS, ONT.

Oxford Down Sheep

ling rams and ram and ewe lambs to offer. Prices reasonable.

HENRY ARKELL & SON, 70 Beatty Ave., Toronto, Ont.

Oak Lodge Yorkshires YORKSHIRES

We have on hand at present the
strongest selection of young sows and
boars we ever bred, including a number
of our recent winners at Toronto. Are
also booking orders now for fall pigs.

J. E. Brethour & Nephews, Burford, Ont.

We are now booking orders for
Fall pigs, both sexes. Several
large litters to choose from.

WELWOOD FARM, Farmer's Advocate
London, 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.

Westside Stock Farm

I have to offer at present one of the best litters of
YORKSHIRE pigs I ever had. Also two extra good
Ayrshire bull calves, born in March from heavy-pro-
ducing dams. Write me for anything in Ayrshires or Yorkshires.

DAVID A. ASHWORTH, Denfield, Ont., Middlesex Co.

Berkshire Pigs

—Large, quick-maturing, thrifty stock; reared under natural conditions,
two imported boars; dozens to choose from. We bred the grand cham-
pion boar, 1917, and first prize boar under two years, Toronto, 1919
weight, 630 lbs. at 17 months. Come and see them, or send for breeding list.

J. B. PEARSON, Manager. CREDIT GRANGE FARM, Meadowvale, Ont.

Sunnyside Chester Whites and Dorsets—In

Chester Whites, both sexes, any age,
bred from our champions. In Dorset ram and ewe
lambs, by our Toronto and Ottawa champions, and
out of Toronto, London and Guelph winners.

W. E. Wright & Son, Glanworth, Ont.

Prospect Hill Berkshires—Young stock, either

sex, for sale, from our imported
sows and boars; also some from our show herd,
headed by our stock boar, Ringleader. Terms and
prices right.

JOHN WEIR & SON, R.R. 1, Paris, Ont.

When writing advertisers kindly mention Advocate.

Large Black Pigs

A Scotch breeder writes as follows:
"The Large Black Breed of pigs is not
subject to degeneration or atavism such as
is common to other breeds. They are also
very prolific and come early to maturity,
while their conformation is just what
Bacon Curers and Pork Purveyors
require." We have young stock of this
great breed for sale. Also very choice
young bulls of English Dual-Purpose
Shorthorns.

LYNNORE STOCK FARM

F. W. Cockshutt - Brantford, Ont.

TAMWORTHS

Young Boars and sows bred for fall farrow.
Express charges prepaid. Registered stock. Write

JOHN W. TODD, CORINTH ONTARIO

Invergie Tamworths—Boars ready for ser-
vice; young cows bred
for fall farrow; extra fine lot of little stuff just
ready to wean.

LESLIE HADDEN, R.R. No. 2, Fefferlaw, Ont.

HIGH-CLASS Duroc Jerseys

Herd headed by Brookwater Ontario Principal
9735 (Imp.), Champion male Toronto and London
1918. 25 high-class young boars 4 to 6 months old.
Select your herd header here.

Culbert Malott, R. R. 3, Wheatley, Ont.
Bell Phone.

STEVENSON'S YORKSHIRES

Bred from the greatest strain of the breed
(Cinderella); for sale young pigs, both sexes, ready
to wean. Inspection invited. Correspondence
solicited. L. M. Stevenson, Science Hill, Ont.

Meadow Brook Yorkshires—We have a choice
offering of sows bred and boars
fit for service. Also a number of large litters
ready to wean. All show the best of breeding
and excellent type.

G. W. MINERS, R.R. No. 3, Exeter, Ont.

Big Type Chester Whites—We cleaned up at

London and Toron-
to Exhibitions, 1919. Now offering pigs from our
805-lb. sows, and sows bred to our 1,005-lb. boar.

JOHN ANNESSER, Tilbury, Ont.

Our School Department.

How Fruit is Judged.

Most of us have visited one or more of the big shows or exhibitions, and have wondered when we saw the long rows of fruit on plates, how the judge ever could decide which was the best and deserved the first place. Now, of course, the judge must know what he is doing or he might not be fair to everyone who has apples on exhibition. Some of us may think that it is an easy job, instead of a hard one, whereas one must be very careful or he is apt to make a mistake. Now suppose we imagined we had two plates of apples in front of us, and we will suppose too, that they are Northern Spys, because these are among the nicest of all apples and the ones we like to eat best about Christmas time. What should we look for in these two plates before we can tell which one is the better of the two?

To do that we must first think what there is about an apple that would make it better than another. In the first place, we will probably think that some apples are bigger than others, and we know that when we eat an apple we do not want it to be too small, because then there would be too much core with the result that there would not be very much of it to eat. On the other hand, apples that are very very large have not the same flavor as apples of a moderate size, so that we must see that all the apples on the plate we choose as the winning one are big enough to be called good Northern Spys, but are not overgrown. Size is not a very important point, but still we must consider it.

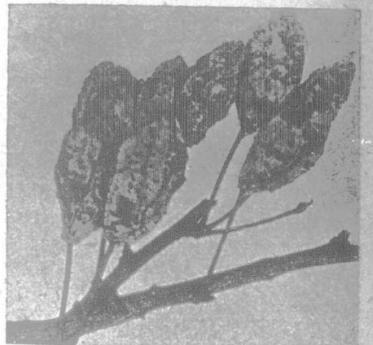
Most of us will look immediately to see whether the apples are red, or whether they are green and unripe. Color is very important in judging fruit of all kinds because as soon as fruit begins to get ripe and ready to eat, it also begins to color up. Most people, too, will buy fruit that is highly colored in preference to other fruit that has less color, and so when we are judging our two plates of apples we must remember what the consumer or the market demands. It is not possible to get too much color in fruit, as was the case with size, so we conclude that the plate of apples that has the most color is best in this respect.

Now suppose one of these plates has three big apples and two little ones, while the other has five apples that are moderate in size. What should we think about this? We would immediately say that one plate lacked "uniformity", and this would be a very serious fault, because if we go into a store to buy some apples we would not buy a basketful if half of them were very little and the other half very large. We would want them all the same size. The same thing is true with regard to color; we would not want half of them green and the other half very red. The result is that when we are judging apples we judge them in many respects just as if we were buying them, and this point regarding uniformity is very important—just as important as color, in fact.

Now suppose, after we had found out which plate was the better in size, color and uniformity, we looked them over again and found that one of them was cut with a knife, or had a worm-hole, or a big, black-scab spot on the top or side. What should we do with this apple? Once more we must consider what we would do if we were buying them. Insects, such as the codling moth, and diseases such as apple scab, do many thousands of dollars' damage every year to our fruit crops, and fruit growers have to spend a great deal of time and money in carefully spraying their trees to keep away these troublesome pests. Is it not fair that the man who goes to all this trouble in order to produce clean, fresh fruit should not be rewarded in some way for doing so? Good judges at exhibitions think that they should, and as a result they will look very closely for worm holes and scab spots. Sometimes people who are not honest will try and scrape off a scabby spot, or, if the worm hole is a small one, will try to cover it up, hoping that the judge will not see it and will believe that they have sprayed carefully and produced good fruit. The judge, however, knows that it would not be fair to encourage

people to grow wormy and poor fruit, so that if the worm hole is at all bad he will throw the plate out altogether and not give it a prize of any kind. The same thing is true where there are holes in the side of the apple so that the skin is cut through and the flesh exposed. Such wounds will not heal over and will spread rot if alongside of other apples in a barrel or box. Sometimes when an apple is being picked for exhibition the picker will get careless and pull the stem out. This exposes the flesh too, and is just as bad as a hole in the side of the apple. Sometimes the stem is put back in again to make the judge believe it was not pulled out, but a good judge will always try the stems to see if they are loose.

Now we come to perhaps the most important point of all, and that is the quality of the fruit. How does a judge tell the quality? He almost never cuts the fruit to find out what it tastes like. It is pretty easy to tell rather by the looks of an apple whether it is of good quality or not. Most of us know this by experience, and can pick out a good apple from the top of a barrel without cutting it open. We do this by looking at the



Mummified Plums.

This is caused by brown rot, and they should be picked off and burned. The disease winters in them.

size and the color to see whether it is ripe enough. An apple that is fully ripe will be as full of quality as it ever will be. Some apples will be very red outside, but if we looked at what is called the under color we will find that it is still very green. There are two kinds of color in apples and pears, as well as in peaches. These are called the under color, which shows up before the apples begins to turn red, and the body color which is the red itself, and comes after the apple begins to ripen. By looking closely at both the body and the ground color one can get a good idea of the quality of an apple, and this point is very important.

Now there is one other point that we must look for, and that is to see whether the apples on both plates are really Northern Spys. To find this out, we must, of course, know what these varieties look like, and it is pretty easy to tell one variety from another by the shape of it. All the fruit on one plate should be shaped as nearly alike as possible, because that adds to the uniformity of the plate, and may also mean that the fruit on the plate is more likely to be all of the same variety.

Thus we have covered nearly all the points about these apples that we need to look for in order to find which plate is the best. We have looked them all over carefully for size, color, shape, freedom from blemishes, uniformity and quality, so that it is a comparatively easy matter to size them both up from what we have found out and give the first prize to the best one.

Teachers are invited to discuss school problems through this department. An interchange of ideas and experiences will be helpful to all.

Burn the dead vegetation and plow the school garden this fall if possible. Insects and fungous diseases harbor in the rubbish about the garden and thus survive the winter.

WALTHAM

THE WATCH FOR ALL TIME

Women just love This dainty watch

With all the accuracy for which the name "Waltham" is world-famous, the Waltham Convertible Bracelet Watch has, in addition, an exclusive feature which recommends it to all women.

This feature is the "disappearing eye" located on the case opposite to the stem, which enables the watch to be worn in many different styles.

It can be worn with the bracelet, ribbon, strap, brooch or chain—whichever way Dame Fashion may dictate. And whichever way it is worn, its marvellous accuracy remains the same, because it is especially adjusted for changing positions. Despite its small size and delicacy, it is strong and sturdy. It will give many long years of good service as a watch, while being easily adaptable to all changes of fashion.

Ask your jeweler to show you this and many other famous Waltham models.

WALTHAM WATCH COMPANY, LIMITED
MONTREAL
Makers and Distributors of Waltham Products
in Canada.
Factories—Montreal, Canada,
Waltham, Mass.



Canadians eat tons daily of

McCormick's Jersey Cream Sodas

Sold fresh everywhere. In sealed packages.

Factory at LONDON, Canada.

Branches at Montreal, Ottawa, Hamilton, Kingston,
Winnipeg, Calgary, Port Arthur, St. John, N.B.

Women Discard Twenty Dollar

Washing Machines for this wonderful \$2.00 Vacuum Washer

Regular Price \$4.00. This advertisement worth \$2.00 if you order at once.

This wonderful vacuum washer will pay for itself the first wash day you use it—we guarantee satisfaction or refund your money. It will wash a tubful of clothes in three minutes. It will wash anything from the heaviest blankets or overalls to the finest laces.

It prevents the wear on clothes—prevents back ache and does away altogether with the old drudgery of washdays.

No more rubbing—throw away your washboard.

This washer can be used for washing, rinsing, bluing or dry cleaning with gasoline.

Send this advertisement and only \$2.00 to-day, and we will send the \$4.00 Vacuum Clothes Washer, complete with long handle and exhaust protector, postpaid to any address. We want to prove to every woman that this is the best Vacuum Washer. **Don't Wait—Order one to-day. Agents Wanted.**

GRANT & McMILLAN CO., Dept. at 19 387 Clinton Street, TORONTO

When writing advertisers please mention "Advocate."

TIRES—TIRES—TIRES

\$11.95 While They Last

Get a pair of these non-skid double tread, double strength, double Mileage, 90% puncture proof tires, guaranteed 3,000 miles.



Sales Dept.
Two-In-One Tire & Vulcanizing Co.
119-119½ King St. West, HAMILTON, ONT.

TRAPPERS

The name **SUMMERFIELD** assures you of **A SQUARE DEAL**

47 years of square dealing has earned us the confidence of trappers all over America, Canada and Alaska.

WE CHARGE NO COMMISSION

If fair, honest grading, prompt returns, and top market price are what you want, then you will make no mistake in shipping to the old reliable house of Summerfield.

Write now for our reliable prices, supply catalog and shipping tags.

Simon Summerfield & Co.
ONE RELIABLE FUR HOUSE
Dept. 171 ST. LOUIS, MO.



Be Your Own Blacksmith

Save repair bills and avoid the loss of valuable time due to breakdowns. Get a Blacksmithing Outfit of your own. Do your own repairing and shoe your own horses. Hundreds are doing it. We furnish complete outfits for the Farm Blacksmith. Full directions included. Write for FREE Catalogue

Our Catalogue gives full particulars and shows direct-dealing prices. Write to-day for free copy.
THE HALLIDAY COMPANY, LIMITED
Factory Distributors
Hamilton Box 61R Canada

ROOFING MILL ENDS CHEAP

A limited quantity of High-Grade Mill Ends for sale cheap. Samples Free
FACTORY DISTRIBUTORS
BOX 61 HAMILTON, CANADA.

PERFECTION Seed & Grain Separator

(Patented 1900)

The best and latest mill for cleaning and grading all kinds of Seed and Grain.
See nearest Agent or write for Catalogue to
THE TEMPLIN MFG. CO., FERGUS, ONTARIO

PATENT SOLICITORS

Featherstonhugh & Co. The old established firm. Patent everywhere. Head Office: Royal Bank Buildings, Toronto. Ottawa Office: 5 Elgin St. Offices throughout Canada. Booklet free.



When you buy a piece of land you put a fence around it.

WHY is it that the first thing you do when you buy a piece of land is to fence it—provided, of course, that the fence is not already there? Because a fence is a form of protection your farm can't get on without.

Yes, sir, we must have fences of some description. If there are a lot of stones on the land you can make a fence of them—and clean the land at the same time. The old "snake fence" was made of rails split from the timber cut to clear the land. Nails and wire were scarce in those days. Snake fences are now out of date—they made a breeding spot for weeds. Woven wire makes the best fence, perhaps; but out west, where many farmers boast of a "mile furrow," two strands of "barb" strung on willow posts is a "legal fence." In the Eastern Provinces you will see fences made of stumps on edge eight feet high.

And here is another point about fences. If the frost squeezes out the fence posts during the winter, the first thing you do in the spring is to take down the post-hole auger and put them back. If the horses scratch against the rails and knock them off, you immediately put them up again. If you have a cow that is bad on fences (a "breachy" cow she is called in some parts) she goes to the butcher, that's all there is to it. Fences are a certain amount of trouble and expense, but you can't help that. You must have the protection that they give your crops and your live stock. There is no use growing crops if you haven't fences to protect them.

There is no use raising stock if you haven't fences to keep them in. One of the strict rules of farming is "keep the fences tight."

The reason we have talked so long about fences is this: Fences are one form of protection; Life Insurance is another.

Take this case for instance: Some young fellow buys a farm. He pays so much cash and gives a mortgage for say \$5,000. He can pay the interest all right, but how is he going to pay the principal? How is he going to be sure that if anything happens to him his family will be protected against the foreclosure of the mortgage? There is only one sure way, and that is to build

a Life Insurance fence around the place. He should take out five thousand dollars of Endowment Insurance at once, or more perhaps. From the very minute he pays the first premium his family is protected. If he dies (no man has lived forever) his family can pay off the mortgage from the insurance money and own the farm in full. If as probably will be the case, he lives for the term of the insurance, he will get from the Company a cheque for \$5,000, with profits in addition. He can then pay the mortgage himself or use the money as he likes. That's real protection!

If you will go to the window now and look over your place, you can see the fences and cross fences. Just think how impossible it would be to farm without them. Then think of how much more important is the protection that Life Insurance would give you and your family. Can't you see how necessary it is that you erect a Life Insurance fence about your place and about your family?

Then let us tell you about an Imperial Policy that will exactly fit your own particular needs and circumstances. Just complete and mail to us the coupon in this advertisement. You do not need to invest if you do not care to. But get the information. You will find it interesting.

THE IMPERIAL LIFE

ASSURANCE COMPANY of CANADA
HEAD OFFICE TORONTO, ONTARIO

Branches and Agencies in all important centres

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

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

Name.....
Address.....

DETROIT

The Auto Center is the Logical Place To



Training for Head and Hand

LEARN AUTO AND TRACTOR BUSINESS

There were 6,353,233 cars and trucks licensed in the United States up to July 1st, 1919. Thousands are being added to this astounding list every day until the number is now well over seven millions. At the present rate it will reach the eight million mark before the end of the year, and still the demand is far ahead of production. *And Detroit is the Heart of this tremendous Industry.*

Big Field With Wonderful Future

The coming year will be the greatest in the history of the Auto Industry. Producers and distributors of every kind of Auto, Truck and Tractor will be tremendously busy. Garages and Service Stations will be rushed to the limit. Already this condition is being felt as never before. Everywhere there is an insistent demand for men—trained men who know how to adjust, repair and care for these thousands of machines. And the constantly increasing number of cars means an ever increasing demand for trained men.

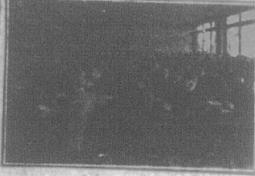
Previous Experience Makes No Difference

It makes no difference what you have done nor what you are doing, you can successfully learn the Auto and Tractor Business if you so desire. Our Course will positively teach you this remarkable business with its wonderful future and unlimited field of opportunities. Grit, perseverance, determination, a willingness to work and a desire to get ahead are the chief requisites. If you have these, Our Course will teach you this work—will fit you to command big money.

Earn \$100 to \$400 Monthly

Really, there is no limit to your earning capacity after you have mastered this business. This can be made the stepping stone to a most successful business career. The training you get here will fit you to hold positions all over the Country are continually asking for our men. They know the value of the training we give and do not hesitate to give our graduates the preference. Unlimited Opportunities.

Your success in the Auto Business depends upon your training, —what you know plus what you are taught and trained to do correctly. Here at the M. S. A. S. you are thoroughly instructed in every phase of the Auto Industry. You learn every part of the work by actually doing it. Such a training enables you to earn the biggest salaries in the business.



Here is shown the Electrical Lecture Room where the elementary principles of auto electrics are explained to the students.

What We Teach.

Each student is thoroughly taught the common principles of auto, truck and tractor construction. Every part of a car and its operation is explained in detail. Starting, lighting, ignition, carburetion, combustion, lubrication, transmissions, differentials, chassis construction, etc.,—all are covered thoroughly and practically. Not one thing is omitted. You are taught automobiles, trucks and tractors as no other school can possibly teach them because of our unequalled equipment and the fact that our School is located "In the Heart of the Auto Industry."

Hundreds of our students go right from Our School into business of their own,—many of them who had never before thought such a thing possible. Our Course convinced them that they had received a training that was invaluable, capable of placing them in business for themselves. And these students are successful. They write us of having incomes way beyond their expectations, all because of the training received at the M. S. A. S.



Not a One-Man School. Our course is not made up of one man's ideas. It represents the combined experience of many,—it consists of the latest, newest and most practical ideas of the biggest men in the auto, truck and tractor business. Our School enjoys the fullest co-operation with manufacturers, service stations, garages and owners,—a factor of vital importance to our students. A. G. Zeller, President.

Sell Autos, Trucks and Tractors

Here is a big field for our students. The training we give helps you to know machines as no average salesman can know them. Your thorough knowledge of the various makes enables you to give expert advice on autos, trucks and tractors. It gives you a big advantage in the selling of these machines.



View of our block test department where we have from 18 to 25 motors all the time for students to work on. Sprague Electric Dynamometer shown in center background.

Complete Tractor Course Included.

Our Students are also given complete and thorough instruction on the care, repair and operation of Farm Tractors as a part of our regular Auto Course. The constantly increasing use of tractors has created a big demand for trained tractor men, hence this addition to our Course without extra charge. Further assistance is realized from Manufacturers who have placed machines with us for the benefit of our Students.



The growing importance of the tractor industry led us to include a complete tractor course with our regular auto course, thereby giving our students the broadest possible training.

Complete Training in Auto Electrics.

This is a very important feature in our Course of instruction. Students are made familiar with every known type of starting, lighting and ignition system. So thoroughly are our students taught this subject that none of them have any difficulty in locating and correcting any trouble occurring in auto electric systems.

Read The Money-Back Guarantee.

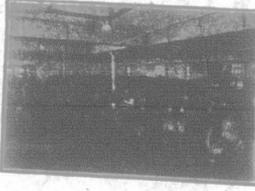
We guarantee to qualify you for a position as chauffeur, repair man, demonstrator, a u t o electrician, garage man, automobile dealer or tractor mechanic and operator, paying from \$100 to \$400 monthly in a reasonable time, or refund your money.



Our School Recognized by Garagemen.

The record made by Our Graduates has led hundreds of Garage Owners to send men to us for training. These men have recognized the value to them of having trained, competent men, and they know that our course gives them that kind. We are also able to place Garage Owners in touch with men in their own vicinity who have taken Our Course, thereby helping both these Garagemen and our students.

co-operation possible. These factories are constantly calling on us for graduates, because they know the type of men we turn out. Everywhere in the Automobile Industry, M. S. A. S. graduates are given the preference because Ours is the Factory-Endorsed School.



A practical working knowledge of all cars is required of each student before he can pass our final examination. This test is made in our repair department.

Brazing, Welding and Tire Repairing Taught.

These subjects are fully covered in complete Course separate from the Auto Course. Brazing and Welding have become a most important part of the Auto Industry, and Students taking the Course are thoroughly instructed on the subject. Our Tire Repair Course is most complete and comprehensive and furnishes a valuable addition to the equipment of a student entering the Auto Industry. There is always a big demand for trained, competent tire repair men.



In this room the student becomes thoroughly familiar with every type of starting, lighting and ignition systems.



This shows a section of our brazing, welding and cutting department. Each student actually handles the torches and works with an individual outfit.

SEND THIS COUPON TODAY

MICHIGAN STATE AUTO SCHOOL 1851 Auto Bldg., 687-89-91 Woodward Ave. DETROIT, MICHIGAN, U.S.A. Gentlemen: Please send me absolutely FREE, New 176-page Illustrated Catalog, "Auto School News" and information as checked below: [] Auto and Tractor Course [] Tire Repairing [] Brazing and Welding (Mark each course you are interested in.) Or, better still, you can expect me about Name..... Street..... City..... Prov.....

MICHIGAN STATE AUTO SCHOOL

"Most Progressive Auto School in America"—"In the Heart of the Auto Industry"
1851 Auto Building
687-89-91 Woodward Ave. Detroit, Mich., U.S.A.