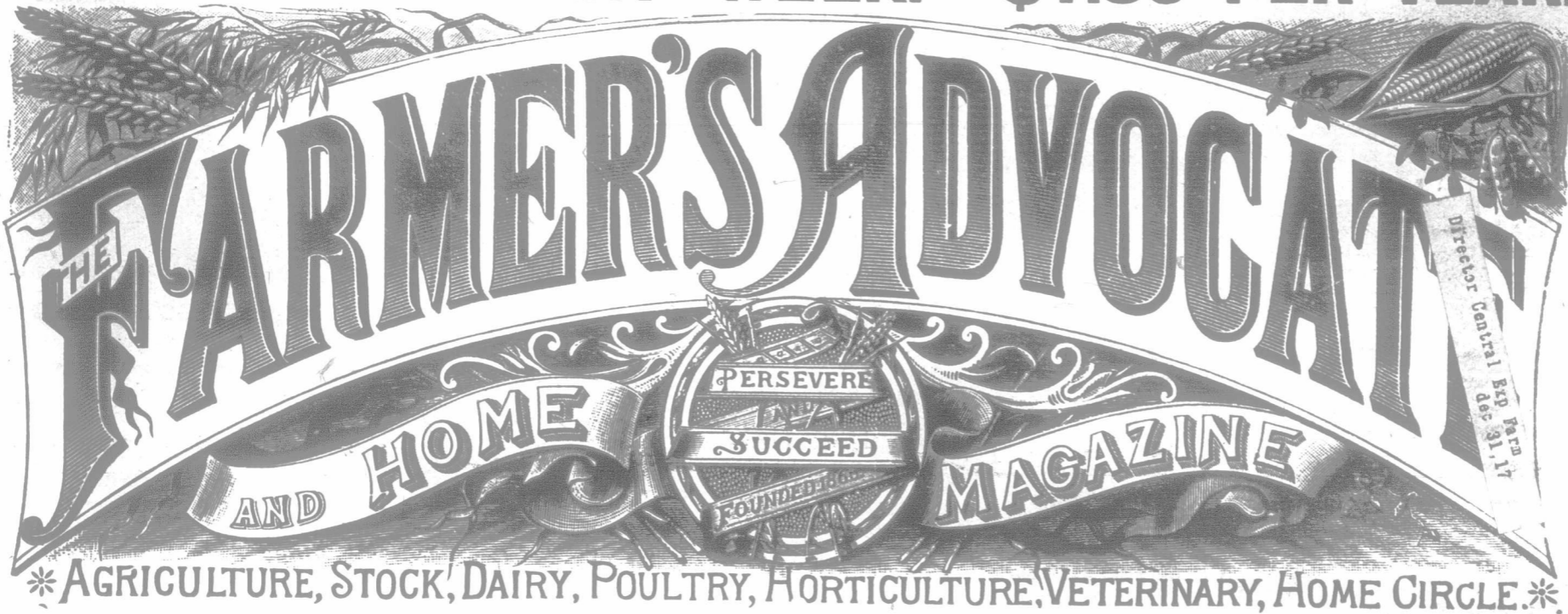


PUBLISHED EVERY WEEK. \$1.50 PER YEAR.



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

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VOL. LII.

LONDON, ONTARIO, JUNE 21, 1917.

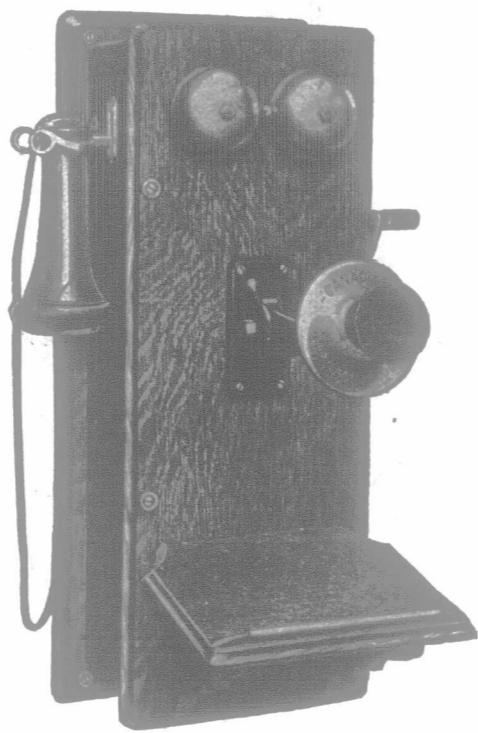
No. 1291

Canadian-Made Telephones For Independent Systems

In war time, home-grown products and Made-in-Canada goods should be purchased in preference to those grown and made outside of the country. In that way, the maximum amount of money is kept circulating in the country, which increases prosperity and in turn enables the Government to secure more funds to finance the war.

In some lines there are, no doubt, sometimes good reasons for purchasing foreign goods. But in telephones there is really no excuse for buying any imported makes.

Canadian Independent Made-in-Canada Telephones are second to none in quality of materials, workmanship and design. They are second to none for clear transmission of the voice and ease of hearing. Canadian Independent Rural Telephones have established records for low maintenance cost and durability that have never been surpassed in Canada. They have proved themselves espe-



Bulletins Free

The No. 3 tells how to build rural lines.

The No. 5 describes our private systems for large factories, etc.

The No. 6 describes our rural telephones.

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cially suitable for Canadian climatic and other conditions.

Canadian Independent Telephones are sold at prices that are fair and just. They are made in our modernly equipped telephone plant in Toronto. They are guaranteed by a financially responsible company that is situated right here in Canada, and depends largely on the Independent Telephone Systems of Canada for its business. It is therefore wholly interested in satisfying the Independent Systems in every purchase they make, and in furthering the interests of the Independent Telephone Movement in every possible fair way.

Buy Canadian Independent Telephones and get the most efficient telephones for your system and keep your money in Canada where it will do the most good.

Guaranteed construction materials also supplied. Let us furnish you an estimate on your wants.

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Artillery Horses

Age, 6 to 9 years. Height, 15.2 to 16 hands. Weight, 1,200 to 1,350 lbs., and 1,500 lbs. and stand 16.1 hands.

Colours

Any, except Light Gray, White or Light Buckskin. All horses must be sound, of good conformation, free from blemishes and broken to harness or saddle.

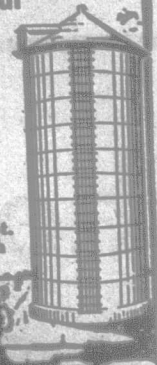
Horses will be inspected as follows:

- June 23, Ottawa
- June 25, 26, 27, Toronto
- June 28, Listowel
- June 29, Seaford
- June 30, London
- July 2, 3, 4, Toronto
- July 5, Port Perry
- July 6, Lindsay
- July 7, Brampton

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Sweet Fresh Ensilage down to the last forkful

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

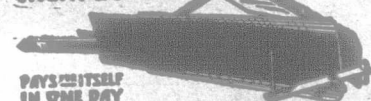


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DIGS YOUR DITCHES GRADES YOUR ROADS EASILY QUICKLY CHEAPLY



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We want your cream. We pay highest market price for butter-fat. Supply cans for shipping.

We have opened a Creamery at Prescott, Ont., where we will be able to take care of our Eastern shippers.

Write for particulars, either to Toronto or Prescott. We guarantee satisfaction in all our dealings with you.

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DUNN CEMENT Drain Tile Machine
Makes all sizes, from 3 to 18 inches. Price with one size, \$250. Cement Drain Tiles are here to stay.
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World's Largest Manufacturers of Concrete Machinery

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MILTON BRICK
Smooth, Hard, Clean-Cut. Write for booklet.
MILTON PRESSED BRICK COMPANY
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The wind, or the rain, or the sun will ultimately "get" your roofs if they are not covered with Nature's roofing—BEAVER BRAND White Cedar Shingles.

White Cedar Shingles GROW: they are not made up of odds and ends of junk. They are cheaper than any substitute, and will outlast all other materials used in the manufacture of roofing materials—slate excepted. Slate is another of Nature's products, and it is the best roofing in the world; next to slate come BEAVER BRAND White Cedar Shingles, made in New Brunswick, Canada, from choice, live logs, by expert sawyers.

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keep the house and barn cool in summer and warm in winter; they don't add to their cost every year with a coat of paint; their first cost is the last.

ONCE FIXED, ALWAYS FIXED.
REPAIRS FEW AND SIMPLE.
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THE SHINGLE ROOF THAT'S STORM PROOF
Manufactured at BATHURST, NEW BRUNSWICK, by
BATHURST LUMBER COMPANY, LIMITED

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

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MEMORIAL BELLS A SPECIALTY
FULLY WARRANTED
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or stuttering overcome positively. Our natural methods permanently restore natural speech. Graduate pupils everywhere. Free advice and literature.
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The fertile prairies have put Western Canada on the map. There are still thousands of acres waiting for the man who wants a home and prosperity. Take advantage of Low Rates and travel via
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Tells How to Loosen a Tender Corn or Callus So It Lifts Out Without Pain.

A noted Cincinnati chemist discovered a new ether compound and called it Freezone, and it now can be had in tiny bottles as here shown for a few cents from any drug store.

You simply apply a few drops of Freezone upon a tender corn or painful callus and instantly the soreness disappears, then shortly you will find the corn or callus so loose that you can just lift it off with the fingers.

No pain, not a bit of soreness, either when applying Freezone or afterwards, and it doesn't even irritate the skin.

Hard corns, soft corns, or corns between the toes, also toughened calluses, just shrivel up and lift off so easy. It is wonderful! Seems magical. It works like a charm. Your druggist has Freezone. Ask him!

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ATTRACTIVE TRIPS
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Berth reservations and full information at all Grand Trunk Ticket Offices, or write C. E. HORNING, District Passenger Agent, G. T. Ry. System, Toronto, Ont.

You can assure your family a **MONTHLY INCOME FOR LIFE** or assure yourself an income during your old age by means of an **Imperial Monthly Income Policy**

Write for particulars now and mention The Farmer's Advocate. Address:
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BALED SHAVINGS
We have a few cars of baled shavings at 15c. per bale, f.o.b. Burlington, ready for immediate shipment. We advise farmers to take them in now, as they will not be available next winter.
The NICHOLSON LUMBER COMPANY, Ltd.
Burlington Ontario

Champion "X" for Ford Cars. Price \$4.75

All New Fords Have Champion "X" Plugs

The fact that all new Ford and Maxwell cars are exclusively equipped at the factory with Champion Spark Plugs is the best reason in the world why owners of these cars should replace with Champions.

The manufacturers selected Champions because they insure maximum efficiency in their motors—prevent loss of compression and are absolutely dependable in emergencies.

The Champions illustrated were developed especially for service in Ford and Maxwell motors and efficiently meet their exacting requirements.

Champion Toledo Dependable Spark Plugs

Have been chosen as factory equipment by over one hundred motor car manufacturers with a combined output of eighty per cent of all automobiles made.

Dealers everywhere sell Champions specially developed for every make of automobile, motor boat, gas engine or tractor.

Be guided by the selection of the engineers who made your motor when replacing the Spark Plugs in your Ford or Maxwell.

Be sure the name "Champion" is on the porcelain—its your guarantee of "Complete satisfaction to the user—Free Repair—Replacement or Money Back."

Champion Spark Plug Co., of Canada, Limited
Windsor, Ontario.

All New Maxwell Cars Have Champion Regular Plugs

Champion Regular for Maxwell Cars Price \$1.00

Make that Stump Lot Earn a Profit.

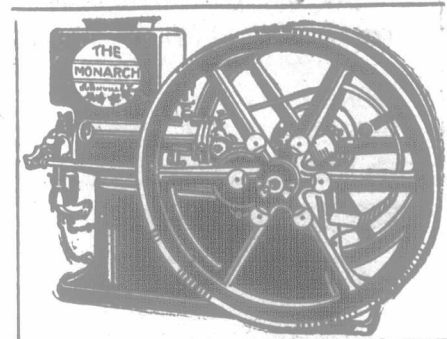
Blast out the boulders, blow up the stumps—and you have a fertile field where waste land existed before.

Use C.X.L. Stumping Powder

the most effective and economical means of blasting out stumps, digging ditches and tree holes and doing excavating work on the farm.

There is big money in agricultural blasting. Write for proposition. Send for our Free Booklet "Farming with Dynamite".

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Choose Your Engine as You Would Your Friends

Wearing Quality as well as Appearance

A few dollars saved on first cost looks very small when compared to valuable time lost because of an unreliable power plant.

The MONARCH Reliable and Economical

because of having in its construction all the features absolutely necessary to accomplish this result.

It will prove a friend indeed to those whose profits are being consumed because of unreliable power.

Our leaflet explains the many desirable features of the engine. Free for asking.

CANADIAN ENGINES, Limited
Dunnville, Ontario

Concrete Machinery for Farm Use

This latest model Hand Mixer pays for itself in 7 days. Write for Special Offer. Crushers, Brick, Block, Tile Machines, Power Mixers, etc. New and second-hand Gas Engines.

Wettlaufer Bros., Ltd.
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FROST & WOOD MOWER



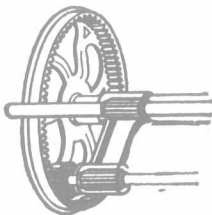
It's a sure crop getter because it embodies 80 years' experience of Canadian Hay Crop conditions.

The F. & W. Mower is sure to give you splendid service for many years to come. It is very easy on your horses, and it's so perfected mechanically, that it is always ready for work, and rarely calls for repairs or adjustments.

Think what it means to look out at a heavy, and perhaps tangled hay crop and be able to say "My Frost & Wood Mower will go through that all right." Most mowers will cut a nice, standing crop—your F. & W. will handle the other kind too.

TAKE OUR "INTERNAL DRIVE" GEAR, FOR INSTANCE—

it transfers the power from the drive wheel to the cutter bar—it is on the inside, revolving in the same direction so that it never loosens, rattles or breaks its cogs. Heavy brass bushings guard against years of hard wear—splendid roller bearings make light draft—heavy, high-carbon steel cutter bar can be set in a second, at any angle, and knives continue cutting even when raised to clear an obstruction.



Too many good features to even list them here. Let us send you our newest folder on F. & W. Mowers, Rakes and Loaders.

THE FROST & WOOD CO. LIMITED,
Montreal, SMITH'S FALLS, St. John.

Sold in Western Ontario and Western Canada by

COCKSHUTT PLOW CO. LIMITED,
Brantford, Ontario.

Louden Barn Equipments

SAVE TIME—Save Labor—Save Expense

Our new catalogue describes every kind of device for money-making and labor-saving on farms. Write to:
LOUDEN MACHINERY CO.
Dept. 1, Guelph, Ont.



You need a new
DE LAVAL
SEPARATOR
NOW

1st If you are still using some gravity or setting process of creaming—

BECAUSE YOUR WASTE IS greatest and quality of product poorest in mid-summer, when the milk supply is heaviest.

BECAUSE TIME IS OF GREAT-EST value on the farm at this season, and the time and labor saving of the good separator counts for most.

BECAUSE THE SKIM-MILK IS poorest without a separator in hot weather, and often more harmful than helpful to calves.

BECAUSE THE WORK OF A New De Laval Cream Separator is as perfect and its product as superior with one kind of weather as with another.

2nd If you have a very old De Laval or an inferior separator of any kind—

BECAUSE THE LOSSES OF THE poor separator from incomplete skimming and the tainted product of the hard-to-clean and insanitary separator are the greatest at this season.

BECAUSE OF THE GREAT economy of time at this season in having a separator of ample capacity to do the work so much more quickly.

BECAUSE THE NEW DE LAVAL is so much simpler and more easily

handled and cared for than any other and you can not afford to waste time these busy days "fussing" with a machine that ought to have been thrown on the junk-pile long ago.

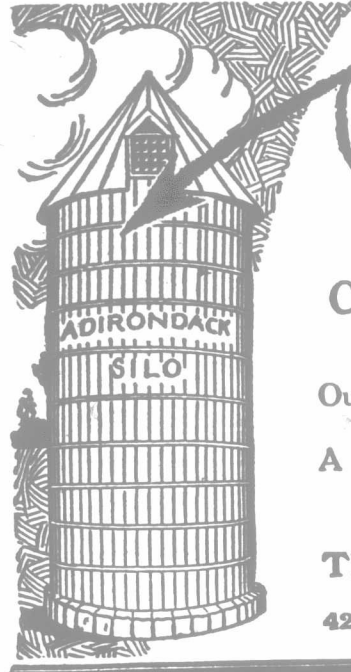
BECAUSE THE DE LAVAL SEP- arator of to-day is just as superior to other separators as the best of other separators to gravity setting, and every feature of De Laval superiority counts for most during the hot summer months.

These are all facts every De Laval local agent is glad of the opportunity to prove to any prospective buyer. If you don't know the nearest De Laval agency, simply write the nearest main office, as below:

THE DE LAVAL COMPANY, Ltd.

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

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



**BUILD A
STURDY STAVE
SILO**

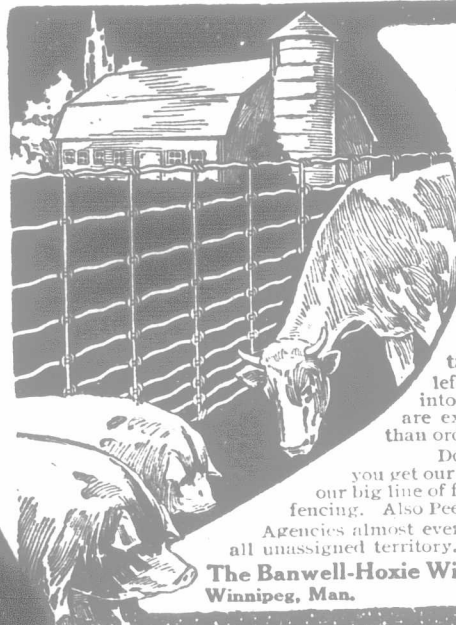
Cost Less and
100% More Durable

Our Preservative Process is an Exclusive Feature.

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Territory still open to live Agents.

THE ADIRONDACK SILO CO.
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PERFECTION**

No matter how fast it comes, the most unruly animal can't break through a Peerless Perfection Farm Fence—it springs back into shape.

Made of heavy Open Hearth steel galvanized wire with all the impurities taken out and all the strength and toughness left in. Every wire is crimped making the fence into one continuous spring. Top and bottom wires are extra heavy. Will not sag. Requires less posts than ordinary fence. Absolutely guaranteed.

Don't buy a rod of fencing until you get our illustrated Catalog. Describes our big line of farm, poultry and ornamental fencing. Also Peerless farm gates. Agencies almost everywhere. Agents wanted in all unassigned territory.

The Banwell-Hoxie Wire Fence Company, Ltd.
Winnipeg, Man. Hamilton, Ont.



Tarvia
Preserves Roads
Prevents Dust-

One Way to Make
Your Farm Pay Better

GET together with your neighbors and secure a first-class, modern road, connecting your property with the market, town and railroad.

See to it that the road is properly maintained, and pay your share of the expense as a good investment that yields 1,000 percent dividends.

Farms on bad roads double in value when the good roads come. When the value doubles, it means that the earning power has doubled also, for the value is based on the earning power of the farm.

Increased earning power and valuation develop in spite of the increased

taxes, for the new taxes do not amount to a hill of beans alongside of the new values.

Good roads increase the prosperity of the community enormously. They are the greatest civilizing force in the world. Education and opportunity follow in their wake. They make country life worth living.

Nowadays, especially in Canada, good roads mean Tarvia roads.

Tarvia is a coal-tar preparation which makes roads automobile-proof and frost-proof. Tarvia roads wear better, and accordingly are cheaper to maintain.

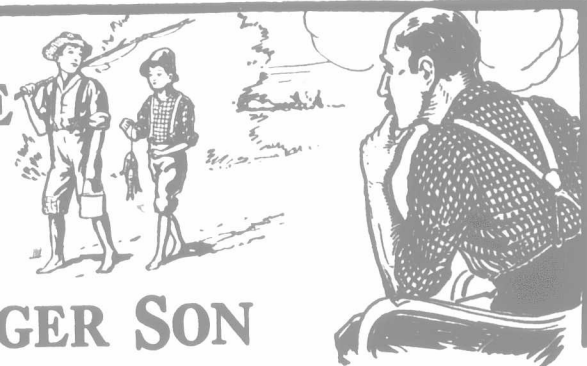
May we send you a booklet about it?

THE PATERSON MANUFACTURING COMPANY, LIMITED
MONTREAL TORONTO WINNIPEG VANCOUVER
THE CARRITTE-PATERSON MANUFACTURING CO., LIMITED
ST. JOHN, N.B. HALIFAX, N.S. SYDNEY, N.S.



Danforth Road, York County Highway Board, Ontario.
Treated with "Tarvia-B" in 1916.

**PROVIDE
FOR
YOUR
YOUNGER SON**



In the course of Nature your oldest son will inherit the farm—his future is assured.

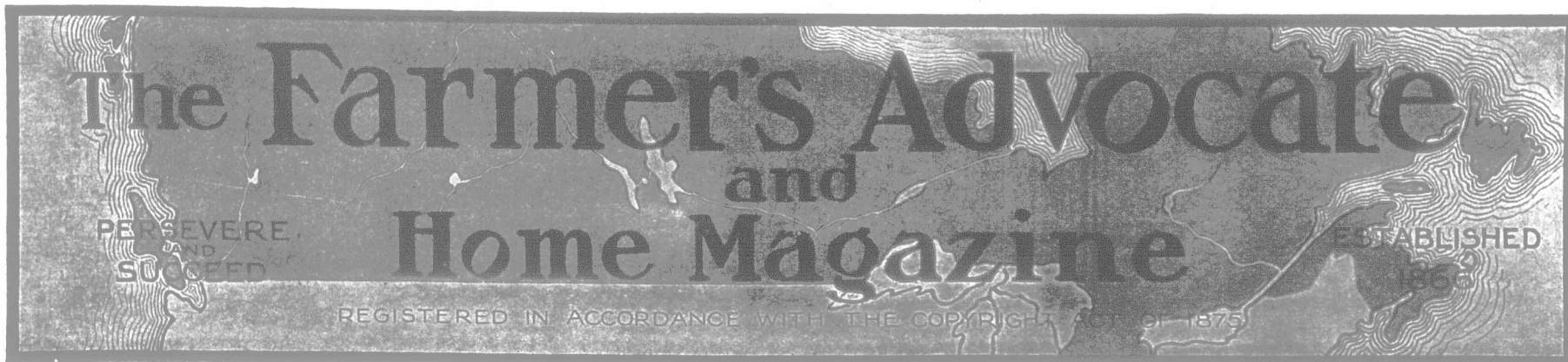
GET A FREE HOMESTEAD

for the younger boy, and give him an equal chance in life. Our "Homeseekers' and Settlers' Guide," to be had for the asking will tell you how and where.

CANADIAN NORTHERN RAILWAY

5% INSTEAD OF 3%
Your money can earn 5% just as easily as 3% if you invest it in the debentures of the Standard Reliance Mtg. Corpn. Our booklet, entitled Profits from Savings, tells you all about it. Write now for a copy. It's free.
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MILL ENDS CHEAP**
A limited quantity of High-Grade Mill Ends for sale cheap. Samples Free
FACTORY DISTRIBUTORS
BOX 61 HAMILTON CANADA.



L.II.

LONDON, ONTARIO, JUNE 21, 1917.

1291

EDITORIAL.

Push the chicks to maturity.

There is economy and satisfaction in homemade bread.

Eliminating booze does not stop business and it saves food.

All overplus fruit and vegetables should be canned for home use.

Break up broody hens the minute they are first noticed clucking.

First in importance in the farmer's transportation problem is good roads.

Make up for the late start in roots and corn by increased cultivation.

If the offensive spreads to the Russian front, where will the Kaiser move his troops?

Have a time for milking and milk on time. Irregularity diminishes milk flow.

The only permanent thing about any road is the need for maintenance.—W. A. McLean.

Betting on race tracks in Canada is prohibited after Aug. 1. It never should be allowed to return.

Townships would do well to appoint a permanent road superintendent to work out a system of roads.

A railroad will not last without section men, neither will a good road remain good without a regular patrol.

In building a house, barn, fence or road, it is wise to build well and then it is economy to keep in good repair.

A correspondent describes, in this issue, a means of feeding pigs cheaply and he says it will prevent crippling.

About the time the Kaiser begins to brag about stopping the Allied offensive it breaks out in another place.

Get land ready for buckwheat. It is a crop worth while on the land which could not be put in to earlier crops.

Fair prices for everything mean fair profits but the greed for excessive profits and the manipulations of the speculator make prices advance out of reason.

He is a small man who places his own political ambitions ahead of national needs, but unfortunately there are always a few small men even in public life.

Begin the summer cultivation in preparation for winter wheat early. The crop which went in early last fall on well-prepared land is far the best stand this year.

A rainy day may be profitably employed in getting the mower, rakes, and loader ready for haying. There may be nuts to tighten, bolts to replace, knives to grind and other repairs to make.

The more one knows about farming and the more one sees of the work the farmer is doing in this Province and in this Dominion, the more he appreciates the farmer's effort. Would that every city dweller could be privileged to see what is being done! Country and city would be brought closer together.

Roads.

Transportation and marketing are two correlated problems which directly affect the farmer and the nation as a whole. The development of any country depends upon its transportation facilities. The progress of agriculture depends upon facilities to transport goods to the farms and produce from those farms, and to successfully market the latter. Steam railways or big trunk lines are the main arteries; branch lines and electric radials are the central feeders but of most importance to the farmer and likewise to the consumer at this time is a system of good roads leading from farm gate to village, town, city or to railway or radial depot which will lead to some large center. We have the trunk lines. We have a number of branch railroads. There is room for more radials tapping certain districts not already served by any roads of steel, but the big problem and the one directly affecting all is the problem of good highways—good roads for everybody and these with a minimum cost. By this we do not mean that roads should be too cheaply constructed. Cheap work is often poor economy. Roads should be built with permanency in mind and then should be maintained.

Ontario has a county-road system, some details of which were described in last week's issue. Out of 55,000 miles of road in this Province, approximately 5,000 miles are now in the system. Counties pay 60 per cent. and the Provincial Government 40 per cent. of the cost of construction and maintenance of leading roads placed under the system. On an average about 18 per cent. of the roads are considered of sufficient importance to be called county roads. A few are so much travelled that it is proposed to call them "Provincial County Roads," and on these the Province will pay for 60 per cent. of cost and maintenance. If every county in the Province took up the system on the 18 per cent. basis, Ontario would have approximately 10,000 miles of county roads, which would relieve no inconsiderable amount of money or statute labor otherwise put on these roads for the township roads in the municipalities through which the county roads pass.

At the inception of the county road idea, ratepayers were loath to come under the system but many have seen the benefit and now twenty-five counties are in the system and twelve remain out. Simcoe, for instance, has 500 miles of county roads of which the people are proud. The problem has been to get the man living back from the road to see the benefit, but the roads have proven their worth and they are moulding public opinion in their favor and stimulating interest in better township roads. The county road may not run by your farm, but it is a step nearer to a better road past your own gate. The system is young. It will spread. Gradually system will replace muddling on township roads and eventually Ontario will have thousands more miles of really good roads.

It is a mistake to think the cost of good roads excessive. A county rate of one mill to one and a half will look after the county roads. It must be remembered that the average county road can be built at from \$2,500 to \$3,500 per mile and built right. This does not mean special conditions where tar macadam or pavement is necessary. Such would come under the designation of "Provincial" or "Provincial County" roads anyway. It is wise to build well and then maintain. No form of road will last without maintenance. It is cheaper to patrol and fix as required than to allow to go down. Experience teaches that a man should be permanently employed on every stretch of ten miles of well-built county road. Make good then keep good is the motto for all.

Township roads are a big problem and these affect every farmer. In the past, with changing councils and different pathmasters no regular system of construction and maintenance has been possible. Whether or not

road work is done by statute labor there should be directing system in it all. The suggestion made by the Provincial Department of Highways that a salaried man be employed by each municipality to look after roads and bridges is a good one. The Department will pay 25 per cent. of his salary and he could, if the right kind of man, save thousands of dollars yearly in many townships and could eventually work out a good road system. Councillors change. They are also subject to election each year and usually play the game so as not to displease any more voters than possible. A permanent road superintendent, responsible to the council, would be in a far better position to carry out a progressive program of road construction and repair.

Above all every farmer should take an interest in the roads in his township and county. Good roads add 10 to 25 per cent. to the value of property. They are marks of progress. They stimulate to greater effort. They mean dollars and cents in marketing. They add pleasure to life and will be in the future even more essential than now for we are just at the beginning of motor car and motor truck developments. Remember that good roads are made for the farmer not for the city auto tourists, and in construction build according to the traffic which the road will be called upon to bear. This will not mean expensive construction on most roads. But build well and maintain.

Freight Rates on Pure-Bred Live Stock.

We understand that the Canadian Freight Association has decided to discontinue the arrangement so long in force, by which pedigreed stock has been carried on all Canadian railways at half the regular live-stock freight rates. Some talk of such a change was heard about one year and a half ago, but the Live-Stock Commissioner and his Department, backed up by the breeders of pure-bred live stock and the best farmers Canada over, succeeded in staying the matter. Just why it is necessary to make such a change is not very clear, but those interested are being notified that from September first all pure-bred stock will be billed at the same rates as obtained for other live stock. Such a change cannot be in the best interests of the country and the railways stand to lose rather than gain by such procedure. Many a struggling farmer desirous of bettering the conditions of his far-off and backward community has taken advantage of the reduced rates to import pure-bred sires and a few females to build up a better and more prosperous agriculture in his community. In the newer sections of the great West results have been most noticeable. In New Ontario and in every section of every Province where the settler has recently gone, the half-fare rate for pure-bred animals has helped to put agriculture on a stable basis with better live stock and improved mixed farming as a direct result. Railroads carried the pure-breds at half price but they stood to gain rather than lose, for in every case it meant more stock and more farm products to be shipped in turn from the farms and the districts to which the pure-bred sires and female breeding stock went. Inter-provincial trade was stimulated and financially we cannot see how the railroads could lose anything by aiding in the development of a business which meant more shipping and a bigger output from the farms of the country. And besides, they were aiding the man desirous of selecting pure-breds—they were doing considerable good to a legitimate industry in which there is still room for great improvement. Thousands upon thousands of Canada's farms require more good pure-breds and it is worth while individually, collectively and nationally to aid in the necessary improvement. In a season of war crisis, when all hands are clamoring for greater production and greater effort on the part of the Canadian farmer, is not an opportune

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.

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time to restrict in any way the progress toward better live stock through the use of more pure-bred sires and laying the foundation of more pure-bred herds. The half-tariff rate for pure-breds has been one of the best arrangements in existence and in as much as it has increased the returns from many farms, it has benefited farmer, railroad and country. Who would say that the railroads have not carried more live stock and more farm products as a result of the preference shown pure-breds? Who will say the system has not been a national benefit? No Canadian Government, were our railways under direct government control, would consider making such a change. Arguments for nationalization of railways are being added to rapidly. The live-stock interests, all agriculture, and the Government should endeavor to show the Canadian Freight Association the folly of their proposed change which has surely been announced without giving sufficient thought to its detrimental possibilities.

Up, and at Them!

The best time to control weeds, like habits, is before they become rooted. Different weeds require different treatment, but all demand constant attention and most frequent cultivation. In this issue some thirty of the commonest and most troublesome pests of the field are tabulated, with habits and means of control concisely outlined. The main consideration in any campaign is to get a good start. The race with weeds is won or lost in the first quarter. If they get away in front they generally hold their lead. If the cultivation gains at the start even the most persistent hangers-on dwindle away. The battle is won early, but to ensure complete victory rake the land with the continuous heavy battery and machine-gun fire of the sharp heavy and light cultivator and follow, if necessary, with a charge of the hoe brigade. Make the work of the hoe as light as possible by the use of the heavy artillery in the form of two-horse cultivators. Supplement this with the field batteries of one-horse cultivators where the work of the larger cannot be made completely effective. In the fields of growing grain the scythe and the spud will

prevent seeding and a re-assembling of scattered forces. The hoe will clean up the stragglers from the trenches in the corn and root fields. Start early before the enemy gets completely entrenched and give the weeds no respite.

A Letter From Glengarry.

BY SANDY FRASER.

I hae been thinkin', Mr. Editor, that seein' ye are a farmer yersel', ye wad like tae hear how the farmers doon here in auld Glengarry hae come through the winter, an' what they hae been daein' this spring in the way o' helpin' tae win the war, an' incidentally tae keep themselves frae starvin', by gettin' the seed intae the ground an' makin' a' the preparations possible for a guid harvest. We had unco cauld weather for a lang while this spring, in fact it wis as cauld in May as it wis in April, an' that richt up tae the end o' the month. Some o' those o' little faith were beginnin' tae think that we were gaein' tae be starved oot entirely, an' that between war an' famine the world wis gaein' tae come tae an end a'the-gither. But the weather has changed for the better durin' the past week an' ye wad be surprised at the difference a few days o' warm sunshine an' rain mak' in the looks o' things an' in the spirits o' the farmers an' everybody else as well. For the mon in toon kens that gin the farmer rins short o' cash the effect will be felt by himsel' aboot as quick as anybody. Hoover, at the present time the condections for growth are juist aboot what they should be, sae there shouldna' be ony kick comin'. There's rain enough, an' not too much, an' it's aboot the richt temperature for warkin' gin ye dinna' gae at it ower hard like. A chap desna' want tae lose ower muckle sweat sae early in the season, ye ken.

The outlook for the hay crop is juist aboot as guid as last year, an' that's sayin' a guid deal for it. The clover cam' through the winter in pretty fair condition, an' what spring frosts we hae had dinna' seem tae hurt it ony. There is a wee field o' alfalfa here an' there in this pairt o' the country, but no' as muckle as there should be, I suppose. A few years back there wis a lot o' it sown in the spring, but the next winter happened tae be a bad one for the young plants an' maist o' them were killed. That wis too much for a guid mony farmers, aifter payin' twenty-five cents a pound for the seed an' they quit. It's a guid thing they are no' sae easy discouraged wi' potatoes, or we wad no' hae muckle o' a crop this comin' year. There wis juist a few o' the "born lucky" farmers that had ony tae sell this spring, an' some didna' hae them for the table even, except maybe on Sundays an' holidays. Those that had them tae sell got three dollars a bag for them, or maybe a wee bit better. It's an unco' fancy price, but then ye ken we're livin' in fancy times.

The main grain crop doon here is oats. Of course ye wad expect that in Glengarry, where we are maistly o' Scotch parentage. Oatmeal wis what oor forefathers were raised on, ye might say, an there is a guid deal o' it still bein' used by their children. I heard a mon say once, that in England they fed oats tae the horses, an' in Scotland they fed it to the people, an' says he, where will ye get such horses, an' where will ye get such men? Onyway there has been a large acreage o' it pit in this spring, an' wi' a favorable season there should be an improvement on last year's harvest. It went intae the ground in guid condition onyway, as did every-thing else in the line o' grain. The ground wis dry an' we didna' hae tae pit it in the mud, like we did last year. Mony a poor chap didna' get it in at all at that time, sae we are gettin' off tae a wheat start this year, at ony rate.

There is no muckle wheat in these parts, but a few farmers pit in a bushel or twa this spring on the chance o' gettin' three dollars or mair for it next fall.

Barley is anither small crop hereabouts. What is grown is used for grinding maistly, an' feedin' along wi' oats. Glengarry has been dry ower lang tae be sellin' ony grain tae the brewer chaps tae be makin' whiskey an' ither auld-fashioned drinks wi'.

Across in some of the Western States they say that corn is king, an' I'm thinkin' that we will soon be able to say as much for it here. The amount o' land given tae corn seems tae be gettin' bigger ilka year. Mair than half the farmers hae silos, an' the rest are wishin' they had them, sae it's na wonder that corn is beginnin' tae get sic a large share o' the best o' oor land. A chap that has plenty guid silage isna' under the necessity o' buyin' quite sae muckle forty-dollar bran as he otherwise would be, tae say naething o' some ither feeds that are sellin' at onywhere under a hundred dollars a ton. It never paid the farmer tae invest in a silo sae well as it does at the present day. It's one way for him tae meet the high cost o' livin' when it hits him in the cow-stable, as it did in a guid mony cases durin' the past winter.

Turnips an' mangels are no' juist as popular as they used tae be wi' some o' oor farmers, maybe on account o' the work that gae along wi' them. They're no' quite as necessary as they were before the day o' the silo, an' wi' labor as scarce an' high-priced as it is ye canna' blame them for gaein' easy on sic a back-breakin' job as workin' at roots.

In regard tae hired help, I dinna' hear ower muckle complainin' aboot the scarcity o' it. It wis sae dry an' cool durin' the seedin' time that the wark wis done wi' less worry an' trouble than is generally the case. Then ye ken that the women o' Glengarry are unco' guid at gaein' their men-folks a help whenever they dae it wi' oot neglectin' their ain wark in the hoose. It didna' need ony war-time lessons tae teach them tae

dae that. It's the auld idea o' a fair draw on an even whiffletree, an' it's pretty weel lived up tae, I've noticed that.

As tae the pay the farmer gets for his lang hours an' hard wark, I think I can say wi'oot stretchin' it that he has made mair money in the past year than in ony ither twelve months on record. He has pit his faith in the dairy coo, an' she has mair than justified his expectations. The price o' cheese an' butter an' cream an' milk has been higher than the maist optimistic farmer in the country ever predicted, tae my knowledge. What ither line can a mon gae intae that will leave his farm in better condition ilka year, an' at the same time keep a guid balance on the richt side o' the ledger in the bank? Sae far, the dairy coo has been the one safe bet. Tae sum the hale matter up, an' takin' everything intae consideration, I think I am no far oot o' the way when I say that o' all the occupations on the face o' this auld earth, there is naething that is fit tae mak' a patch for farming in Canada in general, an' in Ontario in particular. I ken it's hard work, an' it's a responsible job, but gin ye dinna' wark ye canna' rest, an' wi'oot responsibility yer mind willna' grow. They tell us that it wis tae mak' character that we were turned loose on this earth, an' gin that's the case I'm thinkin' that we needn't be lookin' for ony better spot than the farm for its manufacture. The mon wha can plough wi' a fast team in a stony field, for instance, an' no' lose control o' his temper, is aboot ready, in one respect at least, tae get his pass tae a better world than this. An' there's plenty ither ways that the farm has for turnin' oot guid samples o' mankind, but I dinna' need tae bother gaein' intae the subject ony further, for na doot ye ken as muckle aboot these things as I dae mase'. Na doot ye are a thinkin' mon, Mr. Editor, as well as a worker.

Nature's Diary.

BY A. B. KLUGH, M. A.

An insect which is very much in evidence at this time of the year is the mosquito. In case of many insects we have to seek them out in order to study them, not so with the mosquito, she seeks us out. I say she because it is only the lady of the species which has a thirst for gore, the males confining themselves entirely to their legitimate food of plant juices.

We have in Canada a good many different species of mosquitoes and these vary a good deal in their histories and in their habitats. Some species breed only in salt marshes, some in woodland pools, some in clear spring water and others in any standing water which is available. One of our commonest species, and the one which causes the greatest annoyance, is the House Mosquito, *Culex pipiens*. This species, as is indicated by its common name, lives in the vicinity of human habitations. The winter is passed in the adult stage, the females only wintering over in cellars and other sheltered places. Early in May these females seek out some stagnant water upon which to deposit their eggs. And they do not require a body of water of any great size, a pool, puddle, rain-water barrel, the water standing in a horse's foot-print, a cistern, a cess-pool, or the water remaining in eave-troughs, or even in old tin cans on garbage heaps, are all used as breeding places by this species. The eggs are laid on the surface of the water and are united together in little oval, concavo-convex rafts, about half an inch long, containing from 150 to 400 eggs. The eggs hatch in from twelve hours to four days, depending on the temperature, the larvae emerging from the base of the eggs. The larvae are the "wrigglers" familiar to many as denizens of the rain-water barrel, and they breathe through a tube arising from the second last segment of the abdomen. The duration of the larval stage depends upon the temperature, averaging about a week. The larva then changes to a pupa—a peculiar bull-headed creature with the head, thorax and wing-cases forming an enlarged structure, and with a slender, curved abdomen terminating in two leaf-like appendages. Near the junction of the thorax and abdomen is a pair of structures which look like horns, but which are really tubes through which the pupa breathes. The pupa is lighter than water, and normally floats at the surface, with the air tubes projecting slightly, but if disturbed it moves down by irregular, jerky motions. The length of the pupal stage varies from one to several days depending on the temperature. Then the adult emerges, rests on the pupal case until its wings have dried and its body has hardened and flies away. Some other species resemble the House Mosquito in their life history, in other species the winter is passed in the egg, in others the larvae are not active but remain quietly at the surface of the water, and in many species the eggs are deposited singly and sink to the bottom instead of floating in a raft.

The way in which a mosquito "bites" is an interesting, often a painfully interesting, subject. The little "bill" or "trunk", as it is often termed, which we see below the head of a mosquito is really only the sheath or covering of the true piercing apparatus. This apparatus consists of a long, grooved central part, with a narrow lid which fits over the groove, thus forming a tube, and two pairs of elongated, slender, sharp-pointed lancets, on either side of this central part. It is these lancets which make the puncture, and the blood is drawn up through the tube. At the base of the tube is a duct from the salivary glands, and as soon as a puncture is made some saliva is injected into it. It is this fluid which causes the irritation resulting from a mosquito "bite". The function of this fluid is to break up the blood corpuscles and to prevent the clotting of the blood, as either the corpuscles or clotted blood would clog up the fine

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sucking tube. If a mosquito is allowed to finish its meal and withdraw its mouthparts from the puncture before being killed, the "bite" is less irritating because much of the saliva injected is then sucked out again by the insect, but if it is smashed on the puncture even more of the saliva may be forced into the wound. The effect of mosquito "bite" is very different upon different individuals, is some causing large and painful swellings, in others but temporary irritation, and some natives of districts badly infested with mosquitoes become inoculated and immune to the action of the saliva.

In the male mosquito four of the six mouth-parts are lacking and they do not "bite". The males may be known by their plume-like antennae, which give the head a feathery appearance.

The best application to relieve the pain of mosquito "bites" is Ammonium hydroxide (spirits of hartshorn), and the only really effective repellent of which I know, and I have tried a good many, is made up as follows:—

- Oil of Pennyroyal..... 1 part.
- Castor Oil..... 2 parts.
- Oil of Tar..... 3 parts.

This preparation if kept on the face, neck, hands and wrists will not only keep off mosquitoes but also all the other pests of the woods, such as Black Flies, No-see-ums (otherwise known as Punkies or Sand Flies) and Deer Flies.

The elimination of mosquitoes in the woods is of course out of the question, but in towns and in the vicinity of dwellings they may be eliminated by destroying their breeding places. This may be accomplished by draining or filling up ponds and small swamps covering the surface of larger bodies of water with crude petroleum, which forms a film over the surface of the water and prevents the larvæ and pupæ from breathing; keeping ornamental waters stocked with fish, such as the Sunfish and Golden Shiner, which devour the larvæ, and keeping all openings of cisterns, rain-water barrels etc., covered with netting.

The ordinary mosquitoes are often bad enough as a constant annoyance in many localities, but they are not as serious as the species of the genus Anopheles which are the carriers of malaria. These dangerous species may be known by their spotted wings and by their attitude when at rest. When resting the ordinary mosquito has the body horizontal, while Anopheles has it at an angle with the surface upon which it is resting. Fortunately the species of Anopheles are not common in Canada.

THE HORSE.

Parturient Laminitis in Mares.

A diseased condition called "Parturient Laminitis," the symptoms of which simulate those of ordinary laminitis or founder, is frequently noticed in mares a few days after foaling or abortion.

Many opinions have been expressed as to the cause, but it is generally conceded that it occurs as a sequel to irritation to the mucous membrane of the womb, in the same manner as ordinary mammitis may occur as a sequel to irritation to the mucous membrane of the stomach from engorgement with grain, etc., or to the mucous membrane of the stomach from a severe attack of diarrhoea or dysentery.

Symptoms.—While the first symptoms may appear very quickly after parturition, they seldom occur until the second or third, or even as late as the fourth day. In some cases the attack is sudden, or only very indefinite premonitory symptoms are noticed. The animal becomes unusually restless, moves her limbs continuously and exhibits symptoms of acute pain. There is a marked increase of temperature, sometimes reaching as high as 105 degrees Fahr. The pulse is frequent, full and hard, the respirations become hurried, and there is generally a total disregard to the foal and marked decrease in secretion of milk. In other cases the attack is more gradual; there is loss of appetite, marked thirst, depression, hurried respirations, full, hard, frequent pulse, and usually constipation. These premonitory symptoms may continue for two or three days before the very acute symptoms are shown. While in most cases the hind feet are the seat of the trouble, in some cases the fore feet, and in some cases all four feet are involved. The position assumed by the patient generally indicates the feet involved. If the fore feet alone she will stand with the feet extended well out in front and resting as much as possible upon the heels; will probably sway backwards occasionally, lifting the toes from the ground and resting upon the heels. If forced to move backwards she will not lift her fore feet properly, but rather drag them backwards upon the heel.

If the hind feet alone are involved she will hold them well forward under the body, with her fore feet placed farther back than under normal conditions, and they will be firmly planted, sustaining as much of the weight of the body as possible, while she will more or less continually shift her hind feet. When all four feet are involved she will stand with all feet as near the centre of the body as possible and will be very restless, sometimes unable to stand the pain, in which cases she will lie or fall down, which gives considerable immediate relief by relieving the feet of pressure, and the patient will usually give a sigh of relief. In addition to the acute symptoms already mentioned, the body often becomes wet with perspiration, the respirations become hurried and jerking and the nostrils widely dilated.

It must be understood that the degree in which the above-mentioned symptoms are marked depends to a great extent upon the severity of the attack, hence vary greatly in different patients, and often in the same patient, depending upon whether she is standing or lying.

A careful examination of the affected feet reveals a well-marked increase in temperature, which can readily be detected by holding the palm of the hand upon the wall of the foot. There will also be noticed a well-marked throbbing of the plantar arteries, which can be detected by holding the hand upon the heels just above the hoof. In addition to this, tapping the wall with a hammer causes increased pain.

While the mare is usually inattentive to the foal, she is not vicious to it. She allows it to nurse without protest, but the partial suspension of the secretion of milk (in rare cases complete suspension) becomes drawn to the attention of the attendant by the fact that the foal is apparently always hungry. Even though the mamma may appear as full and well developed as usual, mulsion or suction will obtain only a few drops of a transparent or reddish fluid.

The duration of the acute symptoms are usually 2 to 4 days, and usually terminate in complete recovery, when proper treatment is adopted; though in some cases the malady may assume a chronic form, even after having been intelligently treated.

In rare cases death may occur from nervous exhaustion caused by excessive pain, or suppurative may occur and a fatal result arise from blood poisoning.

Treatment.—If constipation be marked or threatened she should be given a laxative of 1 to 1½ pints of raw linseed oil, or, if the foal be dead, a brisk aloetic purgative, but if the foal be living and nursing, aloe should not be given, as it appears to have an affinity for the lacteal apparatus, is partially excreted in the milk, and is very liable to cause diarrhoea in the foal. If the temperature be quite high and the pulse full and frequent, about 20 drops of Fleming's tincture of aconite should be given in a little water as a drench, and the dose repeated if necessary in 3 or 4 hours. When the expression of intense pain is present it is well to administer from 1 to 1½ oz. (according to size of mare) of chloral hydrate dissolved in about a pint of warm water. This dose may be repeated every 5 or 6 hours so long as indicated by the symptoms.

Local treatment is even more essential than constitutional. The shoes should be removed and the lower margin of the wall well pared down in order to allow weight to be borne by the sole and frog. Either hot or cold applications must be kept to the feet, warm applications do little good. Some authorities claim that cold should always be used, but the writer's experience has been that hot gives quicker relief. Hot poultices of linseed meal or other material that retains heat will give good results. They must be kept hot by the repeated supply of hot water. Or if cold be adopted, by the repeated supply of cold water or the constant supply by fastening a hose to the pastern and allowing water to flow out of a tap or from an elevated barrel. Standing the mare with the affected feet in a tub or tubs of either hot or cold water (called tubbing) or standing her in a stream of running water, is sometimes practiced and is good practice when there is no foal, but interferes materially where the foal is living and nursing. This should be kept up until the acute soreness has subsided, after which the feet should be kept damp for a few days. If after the acute symptoms have passed and the mare is apparently suffering little or no distress, but still walks groggy, indicating that there is a danger of that case resulting in chronic laminitis, it is good practice to blister the coronets and repeat the blistering every month for 3 or 4 months.

WHIP.

Purchasing Army Remounts in Canada.

Following the action by the Imperial Government in deciding to again undertake the purchase of remounts in Canada, a conference was held on Friday, June 8th, between the British Remount Commission and representatives of a number of horse breeders' associations, at which information was given by the Commission regarding the purchasing of remounts for the British Government. General Neill, a Canadian, has been appointed a member of the Commission, by the Imperial Government, to arrange for assembling the horses. There will be Central Depots for the inspection of horses located at the chief centres of the horse industry throughout Canada. Inspections will also be made, however, at country points when sufficient horses can be assembled. The purchases at present will be limited to artillery and transport horses. All horses must be sound, of good conformation, free from blemishes and broken to harness or saddle. They must be between six and nine years of age; the height required for artillery horses is 15.2 to 16 hands, and the weight between 1,200 and 1,350 pounds.

A committee from the associations was appointed to confer with the Commission regarding matters in which they might be mutually interested.

LIVE STOCK.

Canada's Ups and Downs in the Hog Trade.

A history of Canada's development of the swine industry and her trade in hog products plainly shows that throughout the last 35 years there has never been a well-marked policy to which the pig raisers subscribed through the medium of organization. Some years ago the bacon hog was knighted in Canada, and farms from end to end of the Dominion, with only a comparatively few exceptions, honored that particular type. Material for Wiltshire sides was to be found in almost every barnyard, but unfortunately the packing industry had not

extended its plants sufficiently to consume the production in the West or in the Maritime Provinces. Consequently hogs suited for good bacon went into home consumption which does not discriminate to any appreciable extent between the lard and bacon type. With the increase in population from 1900 on there began a decrease in the export bacon trade, and a corresponding indifference to the merits of the breeds which had been introduced and popularized.

Ontario and Quebec are equipped to handle a large production of hogs if the crop is spread over the season, but the Maritime and Western Provinces are not so favored. Alberta, which for years had been enjoined to raise live stock, produced in the neighborhood of one million hogs in 1914, but the avenues by which the product should have been marketed had not been broadened to facilitate their movement. Feed increased in price and Alberta, Saskatchewan and Manitoba had plenty of hogs but no adequate market to meet the situation. Another obstacle has been the persistent reluctance of hog buyers to pay according to grade, and this barrier will retard progress until quality is recognized and the owner remunerated by so much per pound. These are a few of the conditions that have resulted in a decrease in our hog population from 3,610,428 in 1911 to less than three million at the present time. We have to admit a decrease in cattle, sheep and swine during the last six years of Canada's live-stock development, so-called. We regret this lack of progress, but let us concern ourselves only with the swine industry at this moment, and a review of the past several decades.

From various government publications and reports it is learned that Canada was stocked with the number of swine mentioned in the years indicated: 1901, 2,353,828; 1911, 3,610,428; 1912, 3,477,310; 1913, 3,448,326; 1914, 3,434,261; June 30, 1915, 3,111,911; June 30, 1916, 2,814,672. Considering the shortage and high price of grain last winter and the consequent thinning of the swine herds, it is reasonable to believe that we must have almost one million fewer pigs in Canada this spring than six years ago, and we never needed them more than right now.

The following table indicates the extent of our exports in hog meats:

Export of Hog Meats From Canada.

Fiscal year.	Bacon.	Total
	Lbs.	Lbs.
1880	8,616,739	10,853,733
1885	7,189,260	8,707,523
1890	7,235,336	7,725,981
1895	37,526,058	40,653,762
1900	132,175,688	136,141,424
1905	116,835,050	121,937,249
1908	92,001,910	95,945,792
1910	45,576,883	49,418,770
1912	59,979,963	63,539,038
1913	36,212,190	39,210,377
1914	23,859,754	27,561,140
1915	76,801,419	116,048,519

The falling off in exports from 1905 to 1914 was not on account of any decline in the raising of hogs. Local consumption grew during this period, absorbing a considerable portion of the country's product, and it was then that our enthusiastic desire to command a prominent position on the British market began to wane. Then war came. Denmark, a successful rival, was obliged to decrease her stocks and Canada stepped in to fill the gap. Our bacon exports amounting to approximately 23 million pounds in 1914, jumped to over 76 million pounds in 1915, and 144,150,309 pounds in 1916. To fill orders the packers of this country have been obliged to draw from the United States, where the lard hog predominates. The farmers, always panicky in respect to pigs, would not even hold on last fall when the prospects were so good. Feed was high, of course, but so were hogs and they have been since—high enough to show as good a margin of profit as the raiser is accustomed to in this country.

We now occupy a position on the British market that would be well worth striving to retain. We can only do so by increasing our volume of supply and making it of high quality by producing the proper type and the Wiltshire side.

This country needs a swine policy and rural organizations to carry it to fruition. Pig raisers should breed bacon hogs and they should be paid according to grade. District organizations should cling persistently to one breed and turn out carload after carload of hogs, so uniform in every respect that buyers would be obliged to recognize their quality and pay accordingly.

THE FARM.

The Organization of Resources Committee claim to have sent out to Ontario farms 5,000 High School boys and 3,000 girls, the wages for the former running from \$15 to \$30 per month with board and washing. Two things are indicated—the boys must be a little good and the farmers who have them must be willing to pay for services rendered.

Enquiries for farm help received by the Organization of Resources Committee revealed the fact that most farmers wanted long-term help. The farmer who plans his work well arranges to use his hired help all season.

Know the Weeds that Invade the Crops.

Identification.	Time of Flowering—Propagation.	Prevention—Eradication.
<p>Wild Oats—(<i>Avena fatua</i>). An annual with spreading head; seed black to brown, with a strong, twisted awn; stiff bristles at basal scar; slanting horseshoe-shaped scar at base of seed; hairs on kernels.</p>	<p>Flowers the last of June, matures in July. The seed is hardier than the cultivated oat and retains its vitality over a number of years. Is an impurity in grain. Ripe seeds drop before cultivated crop matures; carried by thresher, in manure, grain bags, etc.</p>	<p>Sow clean seed; hand pull if only a few stocks in the field; shallow after-harvest cultivation; keep hoed crop clean, followed by early maturing crop and seeding to clover. Aim at cropping to prevent wild oats maturing on the field.</p>
<p>Couch or Twitch Grass—(<i>Agropyron repens</i>). A perennial with fleshy, creeping root stocks. Mature seed resembles a wheat kernel; basal end pointed; other end hairy.</p>	<p>Flowers towards last of June; seeds mature in July. Spreads by seed and creeping root stocks. Each joint or root sufficient to start a new plant.</p>	<p>Don't let the plant mature, and avoid cultivating through patches of it in the field. If in hay cut before seeds ripen. Plow shallow and cultivate root stocks to the surface in hot, dry weather; gather and burn. Summer-fallow to end of June, then sowing rape or buckwheat is a good practice.</p>
<p>Canada Thistle—(<i>Cirsium arvense</i>). Perennial with deep root stocks. The plant grows to quite a height in rich soil if unmolested. Leaves prickly; flowers varied in color. Seed a light brown; elongated, rim on one end, with point in centre.</p>	<p>Flowers appear from June to August, and seeds a month later. Seed carried by wind and also in grass seed.</p>	<p>Cut thistles to prevent seeding; follow a systematic rotation of crops; keep hoed crops clean; prevent leaves forming. When blossoms are about ready to open is a good time to cut or plow under thistles. Cut the roots when plowing at any time of year.</p>
<p>Perennial Sow Thistle—(<i>Sonchus arvensis</i>). Deep-rooted perennial with vigorous root stocks. Grows from 2 to 4 feet high; pointed, deeply-cut leaves; stems and leaves contain bitter, milky fluid. Bears a bright yellow flower similar to dandelion; seed reddish-brown, deeply ribbed lengthwise.</p>	<p>Flowering commences in June, and the plant spreads rapidly by the seeds being carried by the wind and by running root stocks dragging on cultivating implements. When established it chokes out grain and grasses, thus reducing crop yields.</p>	<p>Give thorough cultivation and prevent plants seeding on the place. Dig up small patches. Summer-fallow is good. Work land thoroughly through June, then sow rape in rows and cultivate twice during growing season. Never cultivate when soil is wet. Plowing sod in August, working it until fall and putting in hoed crop the next year gives results. Community effort necessary to stamp it out.</p>
<p>Annual Sow Thistle—(<i>Sonchus oleraceus</i>). Leaves deeply cut and toothed; stem grows 3 to 4 feet high. Flowers are pale yellow and smaller than the perennial; seed brown, flat and finely ridged.</p>	<p>From May until frost flowers may be found. Seeds are distributed by the wind. The plant appears in waste places and is common in grain and hoed crops, especially where grain is thin.</p>	<p>Clean up waste places to prevent the plant seeding. Don't let plants seed in the hoed crop, and avoid having field in grain year after year.</p>
<p>Bindweed—(<i>Convolvulus arvensis</i>). A perennial of the most stubborn nature, with persistent, creeping, cord-like root stocks. Twines around stems of other plants. Forms a thick mat. Leaves heart-shaped. Flowers funnel-shaped, or resemble a morning glory flower; seed angular with tubercles on surface.</p>	<p>Flowers throughout the summer. In some sections few seeds are produced, but when they are they ripen in August. Seeds and root stocks spread this weed. The smallest portion of root will start a new plant. Has great vitality and persistency.</p>	<p>Don't let this weed get a start. Dig out small patches and avoid trailing root stocks on implements. Short rotations, use broad-shared cultivator every five or six days from June to fall to prevent leaves forming, thus exhausting vitality. Smothering crops useful. Small patches may be covered with building paper or manure.</p>
<p>Wild Mustard—(<i>Brassica arvensis</i>). An annual branching plant; stems covered with stiff hairs. Flowers, bright yellow; four petals. Seed in pods; seed somewhat resembles turnip seed.</p>	<p>Flowering commences in June, seed ripe by August. Spread by seed alone. A heavy feeder, troublesome in grain, hoed crops and waste places. It seeds profusely.</p>	<p>Seed contains great vitality and will remain in soil for years. Sow clean seed and pull odd stocks on clean land. Short rotation of crops and crop to prevent plants seeding. Partial summer-fallow followed by hoed crop and seeded is good practice. Spray with 2 lbs. bluestone in 10 gals. of water, 50 gals. to acre.</p>
<p>False Flax—(<i>Camelina sativa</i>). Annual and winter annual, growing erect and branching; leaves arrow-shaped; numerous, small, pale, greenish-yellow flowers. Pods pear-shaped. Seeds small, pale yellowish-brown; seed coat pitted.</p>	<p>Flowers may be seen in late June, seed mature from July on. Propagated by seed and is found in waste places, although gradually spreading to cultivated land. Found in fall wheat and new meadows.</p>	<p>Be careful of small seeds sown. Pull plants which first appear. Harrowing fall wheat in spring destroys many weed plants. Give infested fields fall cultivation followed by partial summer-fallow, then sow rape, buckwheat or millet. Sheep keep the plant in check in pastures.</p>
<p>Worm Seed Mustard—(<i>Erysimum cheiranthoides</i>). Annual and winter annual, growing to various heights. Leaves lance-shaped; flowers bright yellow in terminal clusters; pods about one inch long, slightly curved; seed reddish yellow with darkened scar end; very bitter.</p>	<p>Spread by seeds which mature from July to freezing up. Common in waste places and cultivated land. Found in well-tilled fields where grain is killed. Stock will not eat grain containing seeds of this plant. Avoided in pasture and hay by all but sheep.</p>	<p>Clean grain and clover thoroughly before sowing. As seeds have not very great vitality this weed is kept in check by short crop rotation and clean cultivation of hoed crops.</p>
<p>Wild Radish—(<i>Raphanus raphanistrum</i>). Annual and winter annual, growing from one to two feet high, producing yellowish-green, deep-lobed leaves. Flowers resemble Wild Mustard but are larger. Root slender; seed in jointed pods.</p>	<p>Seeds ripen in August, and are spread in seed grain. Plants grow coarse, and when numerous interfere with harvesting the grain crop.</p>	<p>If care is not exercised to prevent re-seeding plant may become troublesome and require a summer-fallow to suppress it. Hoed crops followed by early maturing crop are recommended for reducing this weed.</p>
<p>White Cockle—(<i>Lychnis alba</i>). Biennial with thick root stock and long flowering stems. Numerous white flowers; seed capsule has 10 teeth at top; seed pale-gray, roughened by regular rows of tubercles.</p>	<p>Seeds ripen in July and appear in meadows, grain and root crops. It is spread only by seed. Once established on a farm it is hard to get rid of, as seeds are difficult to separate from clover.</p>	<p>Avoid sowing clover containing this weed. Prevent plants reproducing if possible. Roots hard to kill; if cut off at surface they grow up again but are not likely to produce seed that season. Expose roots to the sun to kill them. If in pastures clip with mower to prevent seeding.</p>
<p>Night Flowering Catchfly—(<i>Silene noctiflora</i>). Annual and winter annual, covered with soft hairs. Plant somewhat sticky. Flowers about one inch in diameter, pinkish to yellowish-white color; tendency to close during the day. Fruit capsule has 6 teeth at top. Seed grayish. Crown with black tip on tubercles which are not in regular rows as is the case with White Cockle.</p>	<p>Flowers from June on to time frost appears. The plant is spread principally by seed in clover. It is prevalent in clover fields and proves objectionable to stock either green or cured. Those who grow red and alsike clover for seed should exercise great vigilance in regard to this plant.</p>	<p>If there is no catchfly seed in clover and grass seed sown and a rotation of crops is followed this weed will not give much trouble. Cut the hay crop in time to prevent the weed seeding.</p>

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Plan to Suppress or Eradicate Them.

Identification.	Time of Flowering—Propagation.	Prevention—Eradication.
<p>Bladder Campion—(<i>Silene latifolia</i>). A perennial, deep-rooted plant with running root stocks. Leaves and stems a pale green and smooth. Flowers are white with inflated calyx. The seed capsule is 5-toothed. Seed is similar to the two weeds previously mentioned but more kidney-shaped, and the tubercles are somewhat cone-shaped.</p>	<p>Flowers as early as May, and spreads by means of seeds and root stocks. It grows in bunches and crowds out cultivated plants. Each plant produces an abundance of seed which is difficult to screen out of red clover. This weed is often brought on farms in clover seed.</p>	<p>Do not sow clover seed containing Bladder Campion. Cut clover crop early for hay to prevent plant seeding. When established, deep, thorough cultivation is necessary, followed by a hoed crop, rape or crop that can be harvested early. Leaving land in sod benefits rather than retards this weed. Don't let the plant mature in the fence corners.</p>
<p>Purple or Corn Cockle—(<i>Agrostemma githago</i>). Annual and winter annual covered with soft hairs. Leaves long and narrow; flowers purple; seed black, somewhat flat and triangular.</p>	<p>Seeds in August and is becoming quite common in cereal grain crops, especially wheat, where it is exceptionally objectionable owing to its imparting a dark color and an undesirable flavor to flour.</p>	<p>It is not difficult to eradicate where a short rotation is followed and care is taken to sow clean seed wheat. Fall cultivation followed by a summer-fallow is recommended when a field is badly infested. Pull and burn stray plants.</p>
<p>Ox-eye Daisy—(<i>Chrysanthemum leucanthemum</i>). Shallow-rooted perennial growing two or three feet high and producing white flowers with yellow centres. Seed is long and club-shaped with 10 ridges lengthwise.</p>	<p>Flowers in June and is prevalent in pasture and hay fields; seldom seen in grain crops. Is propagated by seed and new plants coming from root stocks. This is a troublesome weed where land is left several years in grass.</p>	<p>If clean seed is sown and land is not left over a year or two in sod this weed can be suppressed. Cut hay crop early to prevent the Daisies seeding and clip pasture fields. Plow sod after haying and cultivate all fall.</p>
<p>Ribgrass or Buckhorn—(<i>Plantago lanceolata</i>). Perennial with short root stock. A cluster of leaves are formed close to ground. Flowers and heads borne on tall stem similar to timothy. Seed brown, boat-shaped with dark scar in groove.</p>	<p>Is in flower in June and the seed matures from the following month to fall. Carrying of mature seed by various means is responsible for spread of this pest of the clover-seed grower. This seed is prevalent in red clover; it is hard to separate out.</p>	<p>Sow only first quality red clover and pull stray plants before seed is produced. If producing clover seed, go through field and spud out the rib-grass. Weed not so troublesome in other crops.</p>
<p>Clover Dodder—(<i>Cuscuta Epithimum</i>). A parasitic annual feeding on clover plant. Stems are thread-like and leafless; flowers whitish with pink shade. Seed very small, yellow to brown in color, and is angular to spherical in shape.</p>	<p>Plant is propagated by seeds which mature by September and fall to ground or are harvested with clover seed. Damage is due to it choking out the cultivated plant.</p>	<p>This weed leaves plants as if burned. Cut and destroy all infested plants as soon as seen. When the weed is spread largely over the field, cut, or plow under before seeds form. Never save seed from infested field.</p>
<p>Wild Carrot—(<i>Daucus carota</i>). A biennial with a large root. Flowers, leaves and stems similar to cultivated carrot. Grows along roadsides; in old meadows, and of late is giving some trouble in other crops.</p>	<p>The carrot commences to flower in July, and seed is produced from September until the snow flies. Some seed is spread by the wind, animals carry some, and impure seed is a means of spreading this objectionable weed.</p>	<p>Keep plant from seeding on roadside and waste places near the farm. Dig out isolated plants in the fields. If land is badly infested put on a hoed crop and be careful of seed sown later. Sheep will keep plant in check in pastures.</p>
<p>Common Ragweed—(<i>Ambrosia artemisiifolia</i>). An annual branching plant commonly found in stubble fields. It is an after-harvest weed. Flowers borne on long, slender spikes or in axil of leaves. Seed is quite large, somewhat pear-shaped, tapering to a point. The ridge is toothed.</p>	<p>Seeds ripen in August and are carried from place to place in seed grain, clovers or grasses. It is quite prevalent in some districts, and owing to its bad odor and flavor is not readily eaten by stock, and tends to cause loss of feed. It will taint milk. As it is a strong plant it reduces the crop yield.</p>	<p>Sow clean seed and follow after-harvest cultivation where possible. If the field is seeded run the mower over the field a couple of weeks after the grain is cut. Short rotation of crops prevents weed getting a hold.</p>
<p>Curled Dock—(<i>Rumex crispus</i>). A perennial with a deep tap-root; leaves large; flowers small, in clusters. Seeds shiny reddish-brown, shaped like a beechnut.</p>	<p>Plant flowers in June, and the ripened seed spreads to meadows, pastures and low, waste places. Shoots grow from the crown of the plant, thus aiding in propagating it.</p>	<p>The seed is a frequent impurity in clover and grass seed. Prevent Docks producing seed by cutting or pulling before crop matures. In dry weather the plant is hard to kill, but if cut and a handful of salt put on the crown the root will be destroyed.</p>
<p>Stinkweed—(<i>Thlaspi arvense</i>). Annual and winter annual, producing a cluster of white flowers on top of a leafy stem. Seed pods are flat and have a wing on each side; as they mature they become of an orange color; seeds purplish-brown.</p>	<p>Plants blooming in fall mature seed early in July. Plants from spring sown seed ripen from August to time of freezing up. This is getting to be a troublesome weed in meadows and grain crops. Do not let it get ahead of you.</p>	<p>Don't let the plants seed; pull and burn. Cultivation to start seeds germinating must be followed in an infested field. Plowing this weed under the last of June is too late to prevent seeds growing.</p>
<p>Wild Peppergrass—(<i>Lepidium apetalum</i>). An annual and winter annual with spreading branches. Flowers are small and seed-pods are heart-shaped. The seed itself is bright reddish-yellow, somewhat flat in shape with groove down each side.</p>	<p>Some plants will be found maturing in June, and are spread in clover and grass seed. When thick it tends to crowd out clovers and grains.</p>	<p>Cultivation before seeding and working the land with plow or broad-shared cultivator after harvest will go a long way in controlling this weed which is new in many localities.</p>
<p>Orange Hawkweed—(<i>Hieracium aurantiacum</i>). A perennial producing leaves close to ground. Orange-red flowers are produced on tall stems. Seeds are purplish black, square on top, pointed at bottom.</p>	<p>Flowers in June, and is spread by seed and the creeping roots. Many seeds are found on each plant, which with the roots, tend to spread this pest. In old meadows and pastures it is troublesome, especially in Eastern Canada.</p>	<p>Spud out the plants where possible. Badly infested fields can only be cleaned by putting them under the plow and giving surface cultivation. This weed is not common in Ontario. Keep it out.</p>
<p>Blue Lettuce—(<i>Lactuca pulchella</i>). A deep-rooted perennial with pale-blue flowers. Mature seed more or less club-shaped and grayish in color.</p>	<p>Seeds ripen from end of July on, and by aid of the persistent running root stocks this weed may become a pest.</p>	<p>Watch for plant in waste places and prevent it seeding. When established, deep cultivation is necessary to destroy it.</p>
<p>Horse Weed or Fleabane—(<i>Erigeron canadensis</i>). An annual producing many small, white flowers to a plant.</p>	<p>A single plant will produce an immense number of seeds. It is objectionable in pastures.</p>	<p>A common impurity in grass seed. As it is an annual it is quite easily suppressed by cultivation.</p>
<p>Blue Weed—(<i>Echium vulgare</i>). A biennial with a stout, deep root. Plant is covered with bristles; flowers blue.</p>	<p>Propagated by seed, and is found growing in waste places, along roads and in old pastures.</p>	<p>Cut weeds bordering on the farm to prevent seeding. Cut below the crown. Break up infested pastures if possible.</p>
<p>Water Hemlock—(<i>Cicuta maculata</i>). A rather coarse-growing perennial with toothed lance-shaped leaves. White flowers are produced in clusters.</p>	<p>Root stocks and seeds spread this weed. It is frequently found in low land and is very poisonous to stock.</p>	<p>Keep a sharp lookout for this weed in low land pastures, cut or dig out whenever seen, and avoid saving hay from places where plant is bad. In the spring this plant is easily pulled.</p>
<p>Russian Thistle—(<i>Salsola Kali</i>). A prickly annual growing in bunches; flowers appear in the axils of the leaves.</p>	<p>The plant breaks off at the ground and is carried before the wind, scattering seeds on its way. If neglected it becomes troublesome.</p>	<p>Don't give the plant an opportunity to seed. If left until full grown it is hard to deal with on account of the sharp bristles.</p>
<p>Lamb's Quarters—(<i>Chenopodium album</i>). An annual plant that is common in rich soil. It grows tall with pale-green leaves and produces the flowers in the axils of the leaves. Seeds are somewhat rounded on one side, flat on the other.</p>	<p>Flowers from the commencement of summer to fall. It is a heavy feeder and absorbs moisture and plant food needed by crops. Seeds may remain in ground several years without germinating.</p>	<p>Destroy seedling plants as old plants are stubborn. Prevent seed maturing. Sheep keep weeds in check, and hogs readily cut this particular weed.</p>
<p>Chess—(<i>Bromus secalinus</i>). A winter annual, common in winter wheat. Seed is enclosed in a husk which has an awn.</p>	<p>Seeds are ripe in July, about time fall wheat matures. It is harder than wheat and grows where wheat kills out. May remain in ground several years.</p>	<p>Be careful of seed sown and destroy patches of chess when seen. Stock, birds and barnyard manure are mediums for distributing this weed.</p>

Clover to Prevent Pigs Crippling.

EDITOR "THE FARMER'S ADVOCATE":

I have read with great interest during the past winter a number of letters regarding rheumatism in pigs and the different opinions of the writers. Some think it is due to stone stables or cement stables; some think it caused by sleeping on cement floors; and others believe that feeding too much shorts or other heavy feed is the cause, but whatever the cause it is a known fact that there were hundreds of crippled pigs last winter which caused a great loss to their owners for they are no good while suffering from the disorder and I have noticed in other years that if they live until spring comes and you can get them out where they can pick some grass or clover they gradually recover and they can be finished off for market during the summer. But a great many of them do not live that long, so I think that what appears to cure them, should be a very good preventive of the trouble and that is the reason I am trying to let

your numerous readers know what I think will prevent the trouble. I will give you the experience of four farmers all living on adjoining farms. Between us we have fed, since last fall, over 100 pigs. Two of these farmers have cement stables under their barns with cement floors, one has plank about 6 inches off the floor the other has just the cement for the pigs to sleep on. Mine is a stone stable with cement floors with a gutter through the pen to keep it dry; the other is just a frame shed on the west end of the barn and very cold with a cement floor. The first three have the heat from about twenty cattle in each stable, the last gets no other heat at all, and out of over 100 pigs of all sizes in these four pens we have not had a sign of stiffness. Now we attribute our success or good luck as some call it to the fact that we have all fed clover in some form ever since last fall. We take a barrel, a linseed oil barrel is good, and we mix one half cut clover and half meal of some kind by measure. I take a pail full of the clover and a pail full of meal until the barrel is about three-quarters

full then fill with water until we can stir it all together thoroughly. We try to have from one feed to one day's feed mixed all the time. We feed this until about three weeks or a month before they are sold. During the last month we used less clover and more meal. This makes excellent feed for growing pigs or brood sows and it certainly cuts down the expense of the feed bill. I would advise any farmer who has not tried it to make arrangements this summer and try clover next winter. What we prefer most is to save alfalfa very green. A good plan is to cut a piece of the finest clover (as the coarse stalks are not so good) coil it up as soon as it is a little dry to prevent the leaves from dropping off, and as soon as it is ready put it in a handy place to get at in the fall, then run it through a good cutting box, cutting it as fine as possible or where the hay is put out of the mow sometimes we get a lot of leaves which fall off. Try this plan and I think you will be satisfied with the result.

Huron Co., Ont.

J. H.

Automobiles, Farm Machinery and Farm Motors.

The Storage Battery.

Although it is a very vital part of an automobile, the storage battery is not thoroughly understood by many motorists. The functions it performs are extremely necessary, and so, too great a measure of attention cannot be given. Because the battery concerns electricity, it does not find as many students as it should. There is nothing about it very mysterious, however, and perhaps in a brief, popular way we can present information that may prove valuable. Because a storage battery wears with use, there is every reason for careful maintenance. You can lengthen the life of a battery and you can shorten it just as you desire. The plates in a battery are covered with a solution known as "electrolyte". This is a combination of sulphuric acid and distilled water. For the best operation, a specific gravity of 1.270 to 1.300 should be maintained. Perhaps it would be well to explain that by specific gravity is meant the weight of a substance in comparison with water. Pure water is always used as a unit by which to measure the specific gravity of other liquids, and so it is referred to as 1.000. You will now understand what we mean when we say the specific gravity of the electrolyte should be from 1.270 to 1.300. To be perfectly plain, it should be about a quarter to a third heavier than water. Concentrated sulphuric acid is 1.835 and distilled or perfectly pure water is used to reduce

the gravity. Never use any water that has touched metal. Perhaps the best way to get the distilled water is to gather it in some earthenware vessel during a rainstorm.

The instrument used to determine the specific gravity of the electrolyte is called a hydrometer syringe. This mechanism consists of a closed glass tube with a long stem of small diameter, inside of which you will find a graduated scale. The hydrometer floats upright in the electrolyte and the figure at the surface indicates the gravity. A hydrometer syringe does not cost much and is absolutely essential if there is any plan you purpose instituting for the safe-guarding of your storage battery. If your gravity goes below 1.250 it will be necessary to charge the battery with direct current. Alternating current cannot be used as it will cause injury rather than benefit. However, if an alternating current is the only one available, you must, of necessity, provide apparatus for converting it into a direct current. It is very easy for you to decide when a sufficient battery charge has been inserted for you will notice that all the cells are bubbling uniformly, and you will also be able to determine that the specific gravity and voltage of all the cells have reached a maximum, when you know that for a period of five hours they have ceased to rise. Even a novice can tell when the battery is out of order because a number of conditions cannot fail to assert themselves. The lamps may be burning

dimly or the hydrometer readings may indicate exhaustion.

Should the electrolyte be spilled out of the battery, it is a simple matter to return a proper proportion of concentrated sulphuric acid and water in order to supply enough liquid to cover the plates. You know just exactly what specific gravity is desired and before filling with the liquid you will have to determine that the proportions are accurate. It is a good policy to put a little water in your battery every week and maintain a positive level. In the winter time, owing to atmospheric conditions, there is not as much demand for water as there is in the summer when temperatures are high. When the weather is cold, always add your water just before running the car and if the thermometer is very low, start the engine before adding the water. You will, of course, understand that water is lighter than sulphuric acid, and so if it is put in a battery that is to remain quiet for any length of time, freezing is bound to take place because the water will remain upon the surface and not mix. When the engine is running, the electrolyte is thoroughly mixed with the water as the charging current produces gassing. We would remind you that the filling plugs should always be kept in a state of perfect purity. Cleanliness cannot be too rigorously enforced. All of the connections also should be as tight as possible. A dirty battery is not an efficient one, and it is efficiency that we must constantly seek.

AUTO.

Canada's Young Farmers and Future Leaders.

Preparing Entries for the Fall Fairs.

In less than three months the fall fairs and exhibitions will be in full swing. The professional exhibitors have already commenced preparing their exhibits. In fact, some commenced last winter to train and fit their stock for this fall. Experience has taught them that where they come into competition with breeders of high-class stock they must have their animals as nearly perfect as possible in every detail. They breed so that the entries in the junior classes will be of an age to show to best advantage. The mature animals are looked after in a manner that will put them in high condition. In every class of stock, even to pigs, it is necessary to train the animals to stand in a position that will show their good points favorably. Many choice animals have suffered defeat in the show-ring because their owners failed to give them the necessary training. Cattle and horses should be well halter broken. A judge can hardly be expected to pay much attention to stock that is constantly jumping around. It takes time for stock to acquire show-ring etiquette. To see a line-up of cattle or horses that are veterans in the show-ring, one cannot help but think that the animals understand the importance of position. Constant training has brought this about. It is not so easy fitting stock for exhibition as it would appear at first glance. It is an art acquired through years of practice.

Boys and young men of to-day will be the exhibitors of the future and the importance of their position can only be realized when it is remembered that the showing to a large extent sets type for the community. To be successful at large exhibitions it is necessary to go through a period of training in fitting and showing for local fairs. Everything must have a beginning and the township fair is a good place to start in the exhibition business.

It is the duty of every young man if he has reasonably good stock on the place to fit it for the local fair which requires support of all stockmen in the neighborhood to make it a success. Without live stock most exhibitions would fall flat. Give the neighbors an opportunity to see what you can produce on the old farm and by reason of coming in close touch with other exhibitors you will no doubt pick up information that will aid you in further preparing your herd for shows. There is no reason why two or three men should drive their stock from fair to fair all fall, "copping off" the greater portion of the prize money. In every community there are animals that would compete favorably with the best usually brought out if they were given a little fitting and training. The writer knows of local fairs that have been greatly improved by the young men helping in the

management and bringing out the best stock they had on the place. While they were not very successful the first year in the show-ring, they profited by their experience and came back the following year and were able to get to the top in several classes. This had the effect of waking up the old exhibitors who were used to having things their own way, and encouraged other young men to make entries. Stronger competition is not only good for the fair but it has a tendency to improve the quality of live stock kept in the community. The ambitious boy doesn't like to see the other fellow get ahead of him, consequently he secures good stock, trains and shows it. At many fairs there are classes for amateurs so that those starting have an opportunity of winning some prizes. However, the prize should not be the whole aim. The educational value ought to be considered. Look over the home stock and see if there is not something that could be shown. It may be a team of horses, a colt, or the driver, or possibly some of the cattle, sheep or hogs could be put in condition and trained in readiness for the show season. Maybe you could make several entries in the poultry department. Think it over and decide on what you will show in time to permit of training and fitting. Don't do like some have done in the past—just take the animals because they happen to know that certain classes have very few entries and they will run a chance of making a little money. Be a sport; fit your stock and make it worthy of you and of the farm. If you fail to get near the top you will at least feel that you have done your best. Be a good loser and remember that it is more honor to stand fifth or sixth in a class of eight or ten, than to get the red ribbon without competition.

The stock to be shown this fall may require a little more feed than that furnished by the pasture field, a little grooming may be necessary, and it is essential to train the animals to do what you want them to. Lead them around and bring up in line with their legs squarely under them. By doing this a few times they get to know what is expected of them. Have a talk with some good stockman who has been successful in strong competition. He may give you pointers which will prove of great value in putting on the finishing touches before the fair.

Those who have no live stock to exhibit may show grain, vegetables or fruit. Not much can be done in preparing these until harvest time. Then select the best portion of the field, cut the mature grain, thresh it and keep it separate from the main crop. Of course this necessitates extra work and some may think it isn't worth the bother, but the training in selecting

and exhibiting is worth more to a young man than mere dollars and cents. A considerable quantity of grain, potatoes or roots is necessary from which to pick the bushel or whatever amount the prize list calls for. The work entailed in picking out material which meets your ideal is considerable, as all who follow the exhibitions know. The same is true with fruits and small vegetables.

With scarcity of help many do not care to undertake anything which makes extra work. However, a little time might be found to prepare a few entries for the local fair. The stock will be the better for it even if they are not exhibited. There should be something worthy of being shown, grown or produced on every farm. If there isn't it is time a change was made in the methods of farming employed. If parents do not take an interest in such things there are few who would object to their boys and girls becoming interested; in fact, most parents encourage it.

If every young man entered one or two animals or exhibited a few samples of grain, roots, vegetables or fruit, what a difference it would make to the fair, and if each exhibitor learned a point or two about breeding, fitting and showing stock and put their newly-found information into practice it would tend to increase their interest in farming and make it a more profitable occupation. If every young man could and would fit an animal that would look good in the local show-ring this fall, it would have a great influence on the live-stock industry of our country. Look the stock over carefully and see if some of it couldn't be fitted for exhibition. Remember, it isn't a bit too early to commence preparation for the fall fair. Do your best and, if defeated, try, try again.

Aiming at Owning a Farm.

EDITOR "THE FARMER'S ADVOCATE":

One hundred acres of fairly level, well-drained, clay loam is the size of farm I would like to manage. I would prefer having ten acres of wood-lot at the back of the farm and the other ninety acres divided into five fields of fifty acres each, and one twelve-acre field, leaving three acres for garden, orchard, yards and laneway. The reason I prefer a farm of this size is that I could do the work myself, with the aid of labor-saving machinery, when hired help is not available. I would arrange to change work with a neighbor when harvesting the crops. This size of farm would not necessitate so large an investment as would a larger acreage, thus leaving more money for equipment and stock.

I would buy one or two pure-bred, dual-purpose Shorthorn cows; these along with four or five grade

Shorthorn community. calves will find ready plentiful. Two good quality brooder during seed in the fall ewes so as at the sale the farm be kept.

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EDITOR "

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Shorthorns would be bred to the best bull in the community. I like beef raising better than dairying as the calves which are not kept for breeding purposes will find ready sale as two-year-olds for beef. If feed were plentiful I could purchase a few more animals to fatten. Two good-sized Clydesdale working horses, two high-quality brood mares of the same breed, and a large driver would be kept. The mares could be worked during seeding, be allowed to run with their foals during the summer and then could take their places at the plow in the fall. I would have six pure-bred Oxford-Down ewes so as to help out wool and mutton production, and at the same time have something which would keep the farm clean from weeds. One Yorkshire sow would be kept.

With the exception of wheat, no grain would be sold from the farm, and even wheat would only be sold when barley, oats and corn could be purchased at a lower price. In this way I would keep up the fertility of the farm. I would want a silo large enough to hold eight acres of corn so as to have silage for feeding the cattle when pastures were short in summer. One acre of turnips, a few sugar beets and some potatoes would be grown. Thirty acres would be planted in grain and an equal amount, twelve acres of which would be alfalfa, would be in hay. A system of crop rotation would be followed so that with the exception of alfalfa the land would not be left in sod longer than two years at a time. This system should help the soil retain its fertility better than if it were left seeded down for three or four years, at which time no clover would be left in the ground.

Grey Co., Ont.

J. M. A.

Results of City Boys Helping Farmers.

EDITOR "THE FARMER'S ADVOCATE":

In discussing the value of the High School boy to the farmer, we must consider the worth and condition of the boy. The average boy taking this work would be from fifteen to seventeen years of age, an immature but impressionable age. His mind, however, would be just a little dulled from constant study, his eyesight probably strained and his body not fully developed physically. The town boy knows little or nothing of farm work; the country boy, of course, does, but has little more strength than the town boy when he leaves school. He, therefore, cannot take a strong man's place on a farm until he has gradually acquired strength and muscle. The benefit the boy derives from a three month's course on the farm undoubtedly exceeds that which the farmer derives. Looking at it from a financial point of view, an energetic youth intent on saving would lay aside a nice sum with which to further his education, if he so desired. This is a small part of the real benefit. Three months in the pure, fresh air would produce a physical fitness unattainable in the city; would give the brain a needed rest from the winter's study, so that when entering school again his mind would be fresh.

The tendency of the past has been for the city boy to look down on the so-called "moss-backs." A term of three months on the farm would broaden a boy's outlook, and show him that a farmer does more than sit on the fence. It would bring some of the farmer's real problems into the limelight. The beauty and restfulness of nature, the never-ceasing battle waged with nature, and the joy of victory over nature are an undoubted benefit when brought home to any person, particularly a young man.

The farmer is benefited more or less according to the nature and strength of the boy hired. At first a city boy would in all probability earn no more than his board, but if he possessed perseverance and was quick he would soon begin to earn his wages. The benefit to the farmer is that of any hired man to a busy farmer; a help in seeding and harvesting whereby the farmer earns his money, merely a financial gain derived from any hired man, High School boy or otherwise. The farmer would, without any question, have to prac-

tice patience and self-control in dealing with a boy that previously knew nothing of farming. Such patience and self-control gained would be an undoubted benefit to some. Again the contact with a young man might brighten the farmer's life, and both would absorb information that would be useful in future work.

The Empire would be greatly benefited by the High School boy working on a farm. The great war slogan of to-day is, "Fight or produce." The boy that is too young to fight will then be helping the farmer produce. Food is one of the most vital necessities of the Empire to-day. Hence, an increase in production is one of the greatest aids that can be rendered to our country. Everything mentioned as a benefit to the boy is indirectly a benefit to the Empire. Increasing the physical and mental capabilities of the coming generation gives promise of a brilliant future for our country.

The blame for the high cost of living to-day is laid at the feet of the farmer, but farmers know the fault is not theirs. By bringing the coming generation of city men into contact with farmers they will see wherein the fault lies, and benefit our country vastly by much needed reforms. For example, they may do away with the middleman, by having the consumer buy if possible directly from the producer. Again, they might legislate against the moneyed man, who "gets a corner" on some one thing and sends the price of that particular article soaring, as was the case with many things last winter. If these men were forced by law to sell as fast as they bought, and the middleman rooted out, it would be an immense benefit to the farmer and the Empire. This will probably be the result of the future businessmen seeing the question from both sides; seeing the farmer's side by farm employment.

At the present time every appeal that human mind can conceive of has been made to slackers. An example set by a boy (or girl) producing, while they idled away their time in pool-rooms, etc., would surely rouse some slackers to their country's need of them, either to produce or to fight.

If boys go on the farm with the thought of helping the Empire in her hour of need, it will add to the bigness of the Empire. It is team work on a large scale which tends to the elimination of selfishness and individualism.

"And the individual withers,
And the world is more and more."

But it is a widening of the Empire by a widening of individuals, not by a deadening process. The benefits to the boy, farmer and Empire thus resolve themselves into a never-ending cycle, a benefit to one, directly or indirectly, is a benefit to the other.

Kent Co., Ont.

HIGH SCHOOL STUDENT.

THE DAIRY.

Forty-two cows and heifers were accepted for entry in the Record of Merit the past month. A class of twelve mature cows was headed by Korndyke Queen DeKol 6th, with a seven-day record of 28.07 pounds of fat. In the senior four-year-old class Pietje Car Born De Kol was first, and the junior four-year-old class was headed by Belle De Kol Pietje. Avondale Pontiac Clothilde was the only entry in the senior three-year-old class, but there were nine junior three-year-olds of which Madeline Dora De Kol had the highest record. Mercena Canary De Kol and Belle Model Pietje 2nd were first in the senior and junior classes respectively.

Eighteen Holstein cows and heifers were accepted for entry in the Record of Performance, during the month of May. There were eight mature cows, headed by Baroness Madeline, with a record of 21,770 pounds of milk and 835 pounds of fat. Minnie Vale of Victoria, a P. E. I. cow, was first in the four-year-old class having produced 15,784 pounds of milk and 561 pounds of fat. Madeline Dolly De Kol had the highest butter-fat record in the three-year-old class, but Patricia Nether-

land Bonerges had a higher milk record. There were only two in the two-year-old class. Lady Lyons Favorit, a heifer owned in B. C., gave 14,520 pounds of milk yielding 462 pounds of fat.

Ayrshire Breeders' Picnic.

Members of the Southern Counties Ayrshire Breeders' Club and their friends spent a pleasant and profitable afternoon at the home of MacVicar Bros., near Belmont, on June 13. While there was a fairly large crowd, corn planting prevented a number of breeders from being present. However, the information obtained in addresses delivered by specialists and the opportunity of discussing practical problems with fellow breeders, amply repaid those interested in dairying who left their regular work for the day. This summer meet of the Club is an annual affair, and the stock judging demonstrations and instructive lectures enlighten both young and old on judging, breed type, breeding and feeding. Special attention has always been given by this Club to boys and young men, with the result that some of the younger breeders are developing into capable judges and stock feeders.

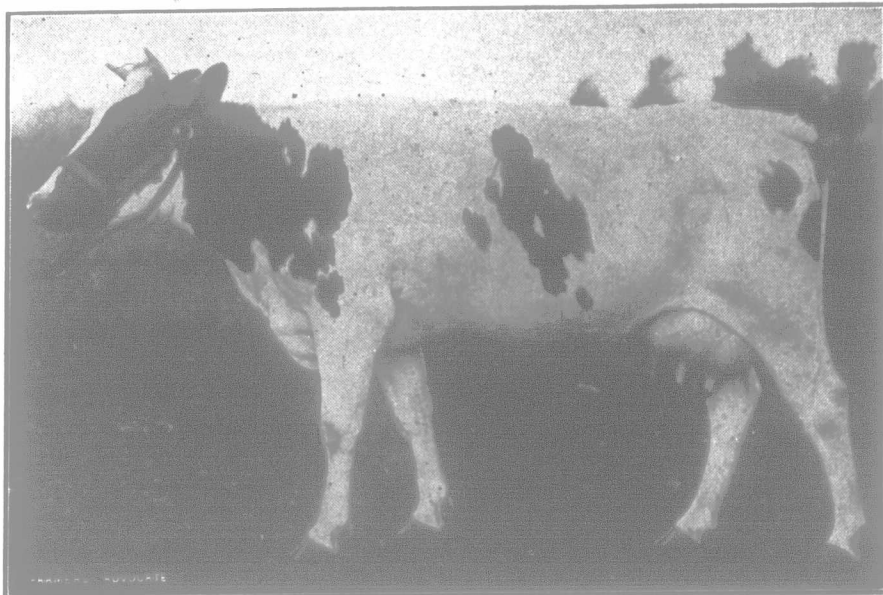
Prof. Leitch, of the Ontario Agricultural College, in an address on farm management pleaded for a more balanced effort in the farm work, and emphasized the importance of quality in the herd. Dairying is oftentimes spoken of as a manufacturing enterprise, but yet it is wrapped up in the general work of the farm. There are very few dairymen in a position to keep cows and purchase all the feed. While it is advisable and sometimes imperative that feeds be purchased even on the most productive farms, the aim should be to grow what the land will produce to best advantage and then buy nitrogenous concentrates to balance the ration. Dairying cannot be separated from the general farm operations. Clover and silage are two important feeds in the cows' ration and should be grown in abundance on every dairy farm. Sometimes weather conditions upset the calculations, but it is only once in a great while that both crops will fail in one season. With all the legume hay a cow will eat, along with a liberal allowance of silage, milk can be produced on a minimum of concentrates. While the main source of revenue on a dairy farm is from milk and its products, it does not pay to ignore the other phases of farm work. On many farms special or cash crops could be grown that would not interfere with dairying; in fact, they would aid in utilizing labor and soil to the best advantage. These crops would augment the profits derived from the farm. By way of illustration the speaker cited several cases where special cash crops were grown in conjunction with the regular crops, as alfalfa in one county, corn in another, potatoes in one township and fruit in another. Clover seed, canning-factory crops, etc., were also mentioned. The soils being particularly adapted to these crops returned a larger revenue than they would in growing crops especially valuable for feeding stock and could be handled without extra labor. The returns could be used if necessary in purchasing concentrates. For the greatest success the best use must be made of the land, and labor should be distributed over the season.

Success cannot always be estimated by the number of cows in the herd, as some returns show herds of twelve cows returning more revenue than herds of twenty cows, thus proving that it is quality that counts. A herd of low-producing cows will not lift the mortgage very quickly when feed is so high in price; in fact, it is likely to make the dairyman worse off. It costs about the same to maintain a poor cow as it does a good one. It is what a cow returns over and above the cost of feed that counts. For instance, in a survey of over six hundred farms in one county in the United States, it was found that where the revenue per cow in the herd was \$59 the labor income for the dairymen was \$164. When the revenue reached \$89 per cow the labor income for the same sized herd was \$600, but when the revenue rose to \$112 the income was over \$1,000, or an increase of about \$50 in production made a difference of upwards of \$1,000 in profit for the dairyman. Consequently, the aim should be to breed and select to improve



Pontiac Korndyke of Het Loo.

Senior and grand champion Holstein bull, Ormstown, 1917. Exhibited by D. Raymond, Vaudreuil, Que.



Calamity Snow Pontiac.

First Granddaughter of Prince Aaggie Mechthilde. Freshened at 1 year and 11 months; record 18.50 lbs. butter and 434 lbs. milk in 7 days and 18,903 lbs. milk and 858 lbs. butter in 1 year. Owned by Walburn Rivers, Ingersoll, Ont.

quality. By paying a little more attention to the crops grown and to feeding problems the profits from the dairy herd can be increased.

Prof. Barton, of Macdonald College, Quebec, in his opening remarks complimented the Club on its endeavor to interest young men in live stock, and recommended that they spare no effort to encourage and help the boys to become proficient in judging and feeding stock. "It is a narrow, short-sighted policy to depreciate the value of stock-judging classes," said the speaker. Judging competitions should be arranged for at township and county fairs and between schools, as most boys' interest in the farm can be enlisted through the avenue of live stock. By having an excellent representative of the Ayrshire breed in the ring, Prof. Barton demonstrated how to examine an animal and compare it with another one, after which several classes were brought in and an opportunity given to place them. As was to be expected, all did not see the animals in the same light, and the discussion which followed brought many important points to the attention of those present.

Judging live stock is largely a matter of comparison, and some men are inclined to place more stress on certain points than others do. The speaker claimed that the amateur judge oftentimes makes the mistake of basing his decision on two or three points without considering the whole animal. On the other hand, the breeder falls down because he has developed certain prejudices, but the main stumbling block is in running to fads, or in becoming riveted to one or two points. These things should be avoided in order to do justice to all animals in the ring. The young men were advised to learn what is wanted in the breed. This will require considerable study and necessitates getting out among prominent breeders. It is easier for the boy to train his eye to size up an animal than it is for an older person. The work of a judge of live stock and of the court judge is somewhat similar. Each must take the evidence and then come to a decision. Every part of the animal must be considered by the live-stock judge. Utility, as indicated by milk and fat production, is primarily the object in keeping cows, but in judging there are other things which count. Every animal should be viewed from a breed, sex, age and breeding standpoint. The size of the animal for the breed must be considered, but along with it quality counts. There are some breeders who sacrifice many things to grossness, while others do not pay so much attention to size if they can get quality. Then, there is substance. The animal must have a good frame but it should be in proper proportions; a shell is not enough. It is possible to get too much length between shoulder and hook bones. Stretching the length to the breaking point is not conducive to strength, nor does it indicate capacity. There must be roominess, which is gotten by depth and spread. Prof. Barton advised steering clear of short-ribbed animals in every breed. The floor of the chest was pointed out as an indicator of strength. If there is a deficiency in that part there is weakness in other parts. Many look too high up on the body for indications of strength and constitution. The general fibre or quality is ascertained by looking at the animal and also by handling. With dairy stock the producing end is of great importance. Shape, size, attachment, capacity and quality of udder must be considered, besides the veining and wells. The desirable Ayrshire udder is of good length and carried well forward and up behind.

When choosing a breeding animal considerable stress should be laid on that something known as character, which is depicted particularly in the head. As a rule the best cows have the breediest heads. When comparing one animal with another the points mentioned should be given due consideration with each individual. Both amateur and veteran in the show-ring are too much given to being carried away with certain points instead of laying necessary importance on every point. Breeders were advised to be honest with their own stock, and not tolerate discrepancies in the home herd. There are many who are able to see the faults in all stock but their own. The habit of being critical with the home stock should be cultivated and an effort made to remedy defects.

There are some who are in a financial position to purchase the best stock in the country to use in building up a herd, but Prof. Barton considered that the most satisfactory way was by the natural road of breeding and selection. Several important matters to consider when building up a herd were discussed. Better feeding is necessary, and will at once improve the average standard of the average herd. Care must be taken that the calves get away to a good start. If the youngsters are stunted in the early stage of their lives they never develop into as good mature animals as they would have had they been kept thrifty. The heifers must also be properly developed both before and after freshening. They should be in good condition when they drop their first calf, and then fed for heavy production, especially the first four months, as this will go a long way in preparing them for future work. When it comes to breeding, the best sires available should be used. The speaker claimed that top-notchers are really scarce and uncommon. At any rate the sires of the quality to make marked improvements in the herd are not plentiful. It is essential that the best females be given every chance to develop and the poorer ones discarded. Prof. Barton advised breeding in channels, or through certain families, as far as possible in order to intensify certain desirable qualities. Unless the individuals are of exceptional quality there is little to be gained by jumping from one strain or family to another. Thus the five important steps in building up the herd are better feeding, particular care of the calf, developing the heifers, using high quality sires and breeding from the best

females. If breeders had these points always in mind the quality of the herds and average production would soon be raised to a higher level.

Chase Dirt From the Dairy.

Everything about the dairy should be scrupulously clean if the highest quality of milk or milk products are to be produced and placed on the market. There are few food products that absorb odors or deteriorate in quality as quickly as milk. It is an excellent medium for the development of bacteria, which cause souring, ropiness, etc. Therefore, care should be exercised to keep everything that milk comes in contact with as clean as possible. To prevent contamination from one direction, while it has free access from another, will excuse no one. Milk is a universal food. While it is one of the cheapest and best of human foods, it must be carefully handled, as it may be the medium for carrying contagious diseases. Most people might advisedly consume more milk, and many producers and consumers might well adopt more approved methods of looking after this particular food. Clean cows, inwardly as well as outwardly, is the first essential. Certain diseases can be determined by test; others by physical examination. Dirt or dust on the body is easily discernible. Dust is a carrier of disease organisms and of bacteria which contaminate milk, but, while infection may come from the cow, unclean dairy utensils and unclean surroundings are sources of germs in milk.

Pails and utensils may appear clean to the naked eye, but nevertheless contain germs which have a detrimental effect on the quality of the milk. Washing with hot water is not enough. The temperature that the hands can endure is not sufficiently high to destroy germs; therefore, scalding water should be used for rinsing all pails, pans, cans, etc. Then it is advisable to stand the pails so that the sun's rays may perform their disinfecting work. The stable or dark milk-house is no place to leave dairy utensils between milkings. If they are left there they should be rinsed with scalding water before being used. Some will think this is unnecessary work, but it may be the means of avoiding considerable trouble at some future date. Deep milk cans, in which whey is returned from the factory, are difficult to clean, especially if the whey was not pasteurized. Here again, scalding water should be used as heat kills many dangerous germs. Well-water, while clean, cold and apparently pure, contains a certain number of germs. Causes of ropy milk have been attributed to the work of bacteria found in surface water. In this case using cold water for rinsing pails increases the trouble.

People convalescing from a contagious disease, or those living in a house where there is a communicable disease, are running the risk of spreading infection if they handle the milk in any way. The origin of epidemics causing loss of life has been traced to the milkman. Consequently, too much caution cannot be exercised about the dairy.

The stable where the milking is done should be as well ventilated and as free from dust as possible, especially if the first milk is left in the stable until all the cows are milked. Warm milk absorbs stable odors, and is responsible for some of the disagreeable flavors. Cooling the milk in the vicinity of the barnyard is also a practice to be renounced.

The milk-house and separator-room require considerable attention during the warm weather. There is bound to be a certain amount of milk spilled on the floor where it soon sours and becomes putrid, producing a disagreeable odor. To keep these places sanitary they require scrubbing out at regular intervals. Neglect to keep the milk-house sweet and clean may cause off flavors in milk and cream. Even when exercising every precaution a certain amount of dust is liable to get into the milk. The sediment test shows the extent of actual dirt in the milk. Strain a pint of milk through a filter paper and note what is collected.

The Cheese Situation.

The Cheese Commission recently sent out the following circular re Western Ontario cheese: Some objections have been raised in Western Ontario against the rules adopted by the Commission to govern the acceptance of cheese at Montreal on behalf of the British Board of Trade. Judging by letters which have reached the Commission from cheese boards and from individual factories, an entirely wrong impression has been gathered from some source. As a matter of fact, the rules have no bearing on the sale of cheese by the factories; they apply only to the delivery of cheese by the dealers to the Commission. The old relations between the dealers and the factories need not be disturbed in any way. The Commission realizes that in requiring all cheese to be warehoused at Montreal, the Western Ontario buyer, (not the factories) will be put to some inconvenience, but the provision is necessary;

- (1) to meet the shipping situation.
- (2) to enable the Commission to regulate the proportion of cheese to be bound with hoop iron, and
- (3) to enable the Commission to inspect deliveries, and to avoid the chance of giving any section of the country an advantage over others.

Although the cheese must be warehoused at Montreal there is nothing in the requirement to prevent a Western Ontario buyer from taking delivery of his purchases as he has always done. The inspection of cheese by the Commission is only for the purpose of seeing that the cheese delivered conforms to the description in the invoices. This inspection cannot be used as a basis

of settlement between the factories and the local buyer. The grades recognized by the Commission are the same as those which have governed the export of cheese in the past. No new feature in the sale of cheese is introduced by this inspection. As there are now no regular sailings of steamers, and space cannot be booked ahead as in normal times, it is necessary to have the cheese on the spot to load at very short notice, sometimes not over twenty-four hours.

The Commission was appointed to assist in getting the cheese out of the country under the extraordinary shipping conditions which have developed during the past few months. If the business could be carried on as usual a Commission would not be necessary, and this fact should not be overlooked.

Phenomenal Prices for Holsteins.

All records in prices for Holsteins were broken at Worcester, Mass., U. S. A., on June 7 and 8, when 143 animals averaged \$2,073.20 at public auction, with \$53,200 being paid for the under-six-months-old bull, King Ormsby Jane Rag Apple, a son of Rag Apple Korndyke 8th, and out of Ormsby Jane Segis Aaggie, the world's champion milk and butter cow. One female brought \$18,300, and another one \$18,000. Forty-five females averaged \$2,990, and 14 bulls averaged \$7,712.50. Individuals having high milk and butter-fat records and out of heavy producers topped the sale. It was another argument in favor of testing and keeping records.

POULTRY.

Market the Old Birds Now.

A hen's usefulness decreases with age. She lays heaviest in her pullet year, but must not be despised as a yearling. There are two and three-year-old hens that lay well but they are the exception, not the rule; it seldom pays to keep them after the second winter. Some system of marketing should be followed so that the old hens can be identified, as it is difficult to tell the age by appearance. On most farms a certain number of hens are kept from year to year. As chicks are raised the mature birds are disposed of but they are often kept until fall when the price is low. Now is the time to dispose of surplus stock so as to avoid competition with young birds. Housewives will not buy an old fowl when they can purchase spring-hatched birds, and who can blame them. Consequently, the bottom drops out of the market. In June and early July there is usually a big demand for old fowl and this year the price is exceptionally high for live birds in good condition. If they have been properly fed, old hens will find a ready sale. Instead of allowing them to waste their time and go thin on the nest, as they usually do, dispose of them now when prices are good instead of feeding them all summer and then get rid of them for a song about the time snow flies. Some will argue that these birds will pay for their feed in eggs. Probably they will, but again they may not, and they certainly will not produce enough, unless they are constantly on the job, to make up the difference in price. Then too, holding until fall has a tendency to lower the price of young stuff. Grain is too high priced to warrant holding all the old stock until fall.

If the birds are leg-banded there is no difficulty in picking out the old fowl. When no records have been kept it is necessary to go somewhat on appearances. A bird that is light, but healthy, is no doubt doing her duty and is not in marketable condition. It is possible to cull out the birds by considering the color of shank and ear lobes. The theory is that the pigment or coloring material is reduced by production. Consequently, the hen of the yellow-shanked breeds that has bright yellow shanks this time of year has laid but few eggs. This fact has been borne out by trap-nest records and may be considered a fairly reliable indication of a poor producer. Likewise with the white-lobed breeds. If the lobes and wattles have a creamy appearance it indicates that the bird has been taking life easy while the birds with the pure white lobes have been filling the egg basket. It doesn't pay to keep non-layers on the farm, nor to withhold the feed from the producers. Take advantage of the high prices offered for old fowl; cull the flock and give more feed and attention to the selects kept.

It Paid to Look After the Flock.

EDITOR "THE FARMER'S ADVOCATE"

The scarcity of feed and the high price of the same was no doubt the indirect cause of the high price of eggs this spring. As I have always been a lover of the well-bred and well-fed single-comb White Leghorns, I thought I would keep tab on our flock and see how feed and eggs would even up. Careful accounts were kept from November 1, 1916, to May 31, 1917. One hundred and five birds, one-half pullets and the rest yearling hens, made up the flock. A few of them were laying the first of November and the number steadily increased until by the end of February seventy-five per cent. of the flock were laying and kept up that percentage for nearly three months. The largest number of eggs laid in one day was eighty-six. After laying so well all winter we were getting fifty per cent. production the first of June.

The following gives some idea of the method of feeding and the feeds used. Wheat was fed in the morning, oats at noon and corn at night. In addition, the

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birds had all the skim-milk they wanted besides pulped mangels. Grit, oyster shell and pure water were before the birds all the time. The grain was buried in cut straw and it was worth all the trouble we were to in looking after the flock to see the hens make that straw fly. Wheat was charged up at \$1.75 per bushel, corn \$2.15 per hundredweight, and oats, 70 cents per bushel. We balanced the eggs we used in the house against the milk and mangels. At the end of the seven months the 105 hens were just \$125 ahead of their feed bill, besides, we have 125 chicks, with four hens to come off yet, so we are very well pleased with our little flock. Farmers should not do away with their hens but just give them a little extra care when feed is high priced. If there is anything that will make a little easy money out of dear feed, it is well-bred and well-fed White Leghorns, with the present price of eggs.

Huron Co. Ont.

C. CAMPBELL.

Closed and Open Runs Connected With the Brooder.

On the average farm the incubator is placed in the basement, or in a room in the dwelling house, and satisfactory hatches are brought off. When poultry are kept on a commercial scale a special building to accommodate the incubators becomes essential. Likewise, when hundreds of chicks are raised the ordinary coops, serviceable for housing a few clutches, must be substituted by a specially constructed brooder house. The accompanying illustrations show the type of brooder house and incubator cellar used by H. K. Revell, of Goderich. The incubator cellar, partially under ground, is 11 by 40 feet, with the laying pen above. The front of the pen is practically all glass and cotton. The latter is hinged at the top and the sashes for glass are made to slide. The brooder house is 17 by 90 feet, divided into twenty-seven separate pens, each accommodating around sixty chicks. Heat is supplied by a hot-water system. In front of each brooder is a run, under cover, 3 by 10 feet, with removable partitions. In front of the covered runs are yards 9 by 60 feet. Under this system the chicks can exercise either in the open or under cover. With changing weather conditions this works admirably. These buildings are adapted to commercial poultry raising.

Where the brooder is used on the farm a covered and open run could be easily arranged. It will give the chicks an opportunity to scratch in the soil, which will aid in producing strong, sturdy birds. If the outdoor run is planted to oats early in the spring, a supply of green feed will be furnished with little trouble. It will not take much poultry wire to enclose a yard of suitable size. If cats, hawks or crows endeavor to carry away the young chicks, a yard could be covered with wire to avoid loss from these sources.

HORTICULTURE.

Fruit Crop Prospects in Niagara District.

During the latter part of last week a representative of this paper visited the Niagara District with the object of ascertaining what the actual conditions were regarding crop prospects. The country was covered more or less thoroughly from Hamilton to the Niagara River, and while there were slight local differences in respect to the promise of the different fruits, the whole community uniformly showed the result of too much rain and the backwardness of the season. The rain gauge at the Horticultural Experiment Station at Vineland showed that 5.4 inches of water fell between May 20 and June 14. This part of the rainy spell was ushered in with a fall of 1.06 inches on May 20, to be followed by intermittent showers which, while no exceptional quantity of water fell, kept the ground wet and cold. On the night of June 13-14 another eight-tenths of an inch fell and left the water standing in the orchards and the fields. These conditions have been as disconcerting to the fruit grower as to the average farmer, for it makes cultivation difficult and spraying less effective.

Speaking in a very general way there will be few apples in the Niagara District this season. It is not an area which produces this fruit in large quantities at the best, but this year the crop is lighter than usual. We at once think of peaches when that sunny Peninsula is mentioned, particularly the narrow strip between the Escarpment and Lake Ontario. There is now a good promise of a fair crop. In some localities and in some orchards of the various local districts there should be a full crop, but this is not general, and those best acquainted with the industry look for a yield that will make them step lively when the harvesting season is on, yet not sufficiently heavy to be termed a good or a full crop.

The Japanese varieties of plums, such as Burbank, Shiro, Red June, etc., are not setting any too well, but the domestic kinds, such as Bradshaw, Reine Claude, Grand Duke, etc., blossomed well and are setting full. Of course, there is still the possibility of a drop but that is not looked for, and the prospects are good.

Sweet cherries of the Windsor type are fairly good, but black kinds are lighter. At Vineland and West, wet, cold weather existed when "Sweets" were in bloom, and they will probably suffer some in consequence. Sour cherries, the chief croppers of which are Early Richmond and Montmorency, blossomed heavily throughout the District and should be in fair supply.

As a general thing pears blossomed heavily, and at

the latter part of last week the growers felt pretty confident of a good set, although it was too soon to be sure.

Strawberries cannot be a heavy crop in the Niagara District this year. Owing to the unfavorable season of 1916 the new plants did not runner sufficiently and the fields are patchy. What foliage there is never looked better and it will probably yield abundantly, but the acreage is small and the plantations are not capable of yielding large quantities. Raspberries, especially Cuthberts, winter-killed to some extent, and the crop will, no doubt, suffer some in consequence. The growers look for a light supply of small fruits.

Taking the local districts separately we found a few variations that must be considered in making an estimate for the whole Peninsula. At and around Queenston the peach crop should be heavy, but other fruits are light. In the St. Catharines District peaches are fair and so are domestic varieties of plums, but the "Japs" are not quite so good. In the orchard of Geo. Robertson, one of the largest sweet cherry producers of the Peninsula, the Windsor and kindred varieties were set full, but Black Tartarians, Black Eagles, etc., were not so promising. Sour kinds were setting full; other orchards, however, did not reveal the same uniform good promise. E. F. Palmer, Director of the Horticultural Experiment Station at Vineland interpreted the situation at Vineland and Jordan much as is written regarding the District as a whole. J. B. Fairbairn did not speak any too optimistically regarding the peach crop in respect to the Beamsville District, but he looks for a "fair crop."

His system also of thoroughly thinning out each branch was new to the farmers, whose practice was to trim the trees, that is, to cut off so many of the lower branches each year and gradually bring the tree higher up; while the system followed by the expert aimed to lower the trees, give the fruit light and air, and make it possible to reach every part of the tree with spray. Another object was to greatly lessen the labor of picking the fruit.

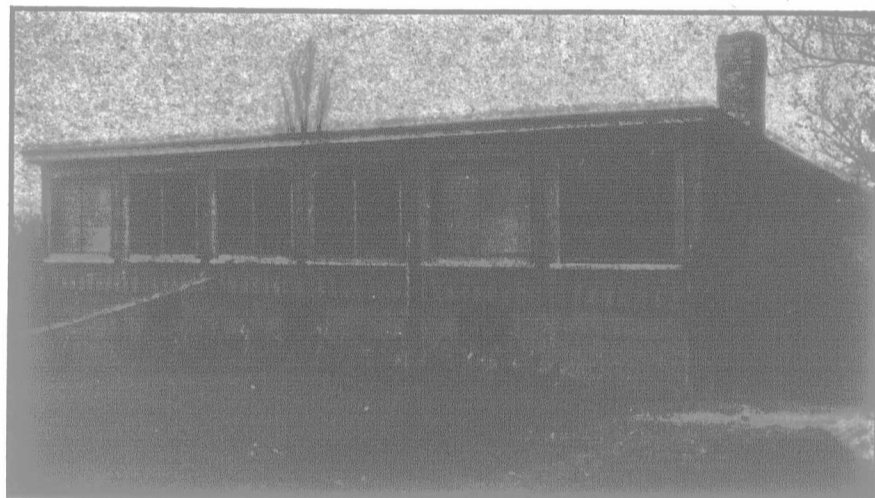
Now for the result. The two rows of McIntosh Reds, although in bearing for several years and fairly well sprayed, had, previous to this, only borne one marketable crop of fruit, this variety being notably subject to scab. In the fall of 1914 there was a full crop, nearly all of which graded No. 1. These trees received four thorough sprayings, under the supervision of I. B. Whale, then District Representative for Middlesex. The two rows in the old orchard also showed splendid results which lasted until last year, although they got no more attention except the cutting of the water sprouts once. Last year's crop on nearly all our orchards only graded No. 3. The Spys on the pruned trees were nearly all No. 1's, while those on the unpruned trees were scarcely marketable.

After giving the system three years' trial we are pruning all the trees we can get done. We are often asked when is the proper time to prune. We started this year in March and have been at it since whenever we could get the time. As there will be no crop of apples to speak of this season, we intend to prune until the end of June, if we do not finish sooner. June is

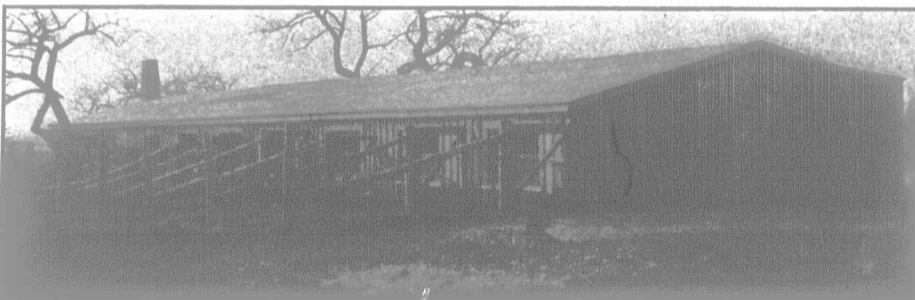
the best month in which to head back large trees. The wound heals quickly at this time, but all large cuts should be covered with a coat of paint consisting of raw oil and lead. Never use a paint containing turpentine or any other drier.

In pruning, the fine-toothed saw is really all that is necessary, but one can do the work much more quickly with the improved pruner. Two hand clippers, one eight feet and the other ten feet long, are useful. The ten-foot clipper is for the man to work with while standing on the ground, and the one six to eight feet for use in the tree. The narrow-blade saw in an iron frame is a good tool, and the hand clippers make the thinning out an easy job. As we will not have much of a crop of apples this season, owing to the very dry, hot weather during the growing season last year, coupled with the exceptionally large crop of the past season, we would advise all fruit growers to prepare the fruit trees for a big crop next year. The fruit buds for next year's crop must be formed during this growing season and we should prepare for a bumper harvest in 1918.

E. CAVERHILL.



Laying Pen and Incubator Cellar.



Brooder House.

At Grimsby the prevailing opinion runs somewhat as follows: Peaches, fair; sweet cherries, medium; sour cherries, good; plums, a good bloom; pears, Bartlets good but some other kinds not so good; apples, light; strawberries, very light; raspberries, fair. For the Winona and Fruitland Districts J. R. Hastings summed up the situation as follows: Peaches, very spotted—some orchards full of bloom but set few; pears, Bartlets and Duchesses, light; cherries, good, both sweet and sour; plums, good; strawberries, light; raspberries, very little winter-killing; currants, looking well.

Owing to the length of and backwardness of the season the growers are fairly well up to date with their work, and with the assistance of help of various kinds brought in from outside, no fear is entertained regarding the harvesting and shipping.

Pruning the Apple Tree for Fruit.

EDITOR "THE FARMER'S ADVOCATE":

I wish to give you some of my experience in respect to the effect of pruning on the succeeding crop of fruit. I once heard a farmer say that he never pruned or sprayed his orchard and did not believe it necessary, but this theory is now exploded by all practical fruit growers. Four years ago in the fall of 1913, the Ilderton Fruit Grower's Association decided to have an orchard pruned as a demonstration, and on application to the Fruit Branch at Toronto, men were sent to select the trees and do the work. In one orchard twenty-five McIntosh Red trees were pruned, while in an older orchard twenty-five trees including Spys, Kings, Russets, Greenings and Baldwins were worked on. Many of the members of the Fruit Growers' Association were present at the demonstration and the lessons have borne much fruit in the years that have followed. The expert's method of heading back was entirely new to the fruit growers and some went so far as to say that it would kill the

Middlesex Co., Ont.

THE APIARY.

Bee Demonstrations.

There is an army of about ten thousand bee-keepers with an average of thirty-five colonies endeavoring to increase production of honey in Ontario this year. Their work is influenced to a considerable extent by weather conditions. The bees secure nectar and pollen from the flowers and the season influences the flora to a considerable extent. Showery, spring weather brings on the clover from which the bulk of high-quality honey is obtained. Anything which retards the clover crop is looked upon with disfavor by bee men. While some people object to bees on account of their antagonistic actions, these busy workers aid in no small way to increase the production of fruit, clover seed, etc. It is necessary that there be fertilization of the blossoms, and the bees materially aid in this. During cold, cloudy weather bees remain in their hives and if fruit is in bloom during a period of dull days it results in a comparatively small crop, unless there are two or three days when the tree is in full bloom that will permit of the bees working. While the bee-keepers' revenue gatherers do not hesitate at encroaching on the neighbor's land in search of nectar, they do an immense amount of good to certain crops. There is yet much to learn about the handling of bees in order to secure the maximum returns, consequently the Provincial Apiarist Morley Pettit, of Guelph, has arranged for seventy-five demonstrations this year in order to give as large a number as possible of bee-keepers an opportunity of learning the latest developments in their business, which will enable them to increase the average production per colony. It is reported that bees are doing well for this season of the year. Colonies coming out of winter quarters

light are rapidly gaining strength, while heavy colonies in the spring are now in excellent condition for a big season's work...

At the demonstrations, information is given relative to the best means of examining a hive for brood, queen cells, disease, etc. Particular attention is paid to American and European foul brood which have been the means of practically destroying many colonies. Once the bee-keeper becomes familiar with these diseases he can detect them when examining the frames and prepare to prevent the disease spreading to other colonies. A demonstration also gives bee-keepers an opportunity to exchange ideas, and in this way the amateur in particular is greatly helped.

On June 6 Mr. Pettit held a demonstration in the apiary of D. Anguish & Sons, Lambeth, at which about sixty bee-keepers gathered to discuss problems pertaining to their business. By use of a colony the speaker demonstrated the way to go about opening a hive and removing the frames when examining for disease or queen cells. Those present had an opportunity to see a mature queen bee and to see the various stages of development of workers in the cells. The speaker advised those present to endeavor to do their work in the apiary as quickly as possible. By so doing the number of colonies could be increased and this would tend to increase production. Amateurs were advised to start with a few colonies and learn to manage them efficiently before going into the business too strongly. The problem of swarming has proved a bugbear to some bee-keepers, but, by paying close attention and examining the colonies regularly this can be reduced to a minimum. The idea is to look through the brood chamber and destroy queen cells, which are not needed. A close lookout must be kept for diseases, of which American foul brood is possibly the most prevalent. This disease is caused by bacteria and reaches healthy young larvae by means of infected food. As a rule the larvae die when nearly ready to seal up. Consequently most of the cells containing infected larvae are capped. The dead larvae soften and go into a shapeless mass which is white or yellow at first, but changes to coffee color and brown. It then becomes glutinous and if pricked with a toothpick the contents will string out a half-inch or more when the pick is withdrawn. Very often the bees will commence filling up these cells with honey, which soon becomes infected and is the medium of spreading disease to healthy larvae, especially if robbing goes on. Once infection enters an apiary, drastic measures must be taken to prevent spread of the disease. All infected brood, comb and honey must be taken away and healthy food given. Care must be taken to prevent robbing and to prevent a colony from scattering and carrying infection. For this reason the operation should be performed in the evening and during a good honey flow. If doubtful regarding the presence of disease in a colony it is advisable to communicate with the Provincial Apiarist at Guelph, who will render every aid possible in stamping out the disease should it exist. In a bulletin on bee diseases in Ontario, Mr. Pettit gives the following method of treatment: "When there is a good honey flow on go to the colony in the evening remove it from its stand and set in its place a clean disinfected hive containing clean frames, with small foundation starters, and, if convenient, a division-board feeder with thin sugar-syrup. The entrance of this hive must be covered with queen-excluding metal. Now, shake the bees from the comb of the old hive into the new, but if any fresh nectar flies out in shaking it will be necessary to brush instead of shake. Get these combs immediately under cover and clean up very carefully any honey that may be around so that robbers from healthy colonies cannot carry home disease. When diseased colonies are weak, the bees of two or three should be put together into the clean hive. In doing this colonies must be united with their next-door neighbor and not carried to another part of the apiary. This has made an artificial swarm in the colony and it must be given the conditions the new swarm likes or it will leave and carry its disease to parts unknown. A new swarm likes plenty of ventilation and shade, also clustering room. To satisfy this natural desire it is sometimes necessary to place an empty hive under the one containing the starters for a few days. This precaution will generally prevent the swarming out which so often happens in treating foul brood. As an extra precaution it is best to use the excluder at the entrance as well. All combs from the supers as well as from the brood chambers of the diseased colonies must be either burned or melted and boiled thoroughly before the wax is fit to use again. The honey that is removed is entirely unfit for bee feed. This method of treatment has proven successful, but it is necessary to examine the brood again in about three weeks and again the following season. If the brood is perfectly healthy on the second examination, combs containing too much drone can be replaced by frames of foundation or clean worker combs". By systematic inspection of the colonies and an educational campaign, disease is gradually being reduced. The bee demonstrations held in various parts of the Province have done much to enlighten bee-keepers regarding identification of and treatment for this scourge of the apiary.

Last year's crop of honey is entirely cleaned out and Mr. Pettit believes that with the most favorable conditions it will be impossible to supply the demand this year, and prophesies that there will be a substantial increase in price over that of the past few years. The home demand for honey is gradually increasing and the Allies are now asking for large consignments. Last season the price of honey was not raised above that of the previous year, but, owing to the high price of bee supplies, it is necessary to raise the price of honey this year.

FARM BULLETIN.

Areas and Condition of Crops.

The Census and Statistics Office issued on June 13 a preliminary estimate of the areas sown to grain crops this spring, with a report of their condition on May 31 as compiled from the returns of crop correspondents. The reports from the prairie provinces state that the spring there is very backward, and seeding is consequently late. At the end of May severe frosts cut down the growing wheat plant; but rapid recovery was anticipated. Rain was needed for the germination of the later sown crops and of wheat sown on stubble.

It is estimated from the reports of correspondents that the total area sown to wheat for 1917 is 13,450,250 acres, as compared with 14,897,000 acres, the area sown, and with 12,900,600 acres, the area harvested in 1916. Thus, the area sown this year, whilst nearly 10 per cent. less than the area sown for 1916, is about 4 per cent. more than the area harvested for 1916. In arriving at these figures revised returns of the Census of 1916 have been included for Manitoba; for Saskatchewan and Alberta similar revisions have not yet been completed. As compared with the areas sown for 1916, the returns this year indicate small increases under wheat in each of the Atlantic provinces and in British Columbia, and an increase of 25,000 acres in Quebec; but for each of the remaining provinces decreases are reported to the extent of 154,000 acres in Ontario, 254,000 acres in Manitoba, 927,000 acres in Saskatchewan and 158,000 acres in Alberta. Of the total area under wheat 809,250 acres were sown last fall and 12,641,000 acres were sown this spring. In the three prairie provinces the total area sown to wheat is estimated at 12,497,550 acres, comprising 2,476,850 acres in Manitoba, 7,605,700 acres in Saskatchewan and 2,415,000 acres in Alberta.

The average condition on May 31 in per cent. of the standard representing a full crop is for all wheat for Canada 84 per cent. as compared with 90 per cent. on May 31 last year and with 91 per cent. the average condition on the corresponding date for the seven years ended 1916. In the prairie provinces the condition of wheat is 87 per cent. of the standard in Manitoba, 80 per cent. in Saskatchewan and 92 per cent. in Alberta. Converted into a standard of 100 as representing the average condition at the end of May of the past seven years 1910-16 the condition for the whole of Canada of fall wheat is 86, of spring wheat 94, and of all wheat 93 per cent. Thus, according to its reported condition on May 31, the anticipated yield per acre of wheat this year is 7 per cent. less than the average of the seven years 1910-16.

Area and Condition of Other Crops.

The decrease in the area sown to wheat this year is partly due to the curtailment of the seeding season by the lateness of the spring, and efforts were therefore apparently directed towards an increase in the areas sown to other crops. For oats, the acreage is 11,781,900 acres as compared with 11,376,346 acres, the area sown, and 9,875,346 acres, the area harvested last year. Barley is sown to 1,954,100 acres, as against 1,827,780 acres, the area sown, and 1,681,180 acres, the area harvested in 1916. Rye has a sown area of 159,470 acres, as compared with 147,170 acres in 1916; peas 152,465 acres, compared with 159,680 acres; mixed grains 558,250 acres, as compared with 410,726 acres; hay and clover 7,661,800 acres, against 7,892,932 acres; and alfalfa 84,900 acres, against 89,472 acres. The condition of these crops in per cent. of the standard representing a full crop is for oats 85 per cent. compared with 90 per cent. last year and 93 per cent., the average at the end of May for the seven years 1910-16; for barley 87 per cent. as against 89 per cent. last year and 92 per cent., the seven years' average; for rye 86 per cent. against 91 per cent. last year and 89 per cent., the average; for peas 88 per cent. compared with 90 per cent. last year and 91, the average; for mixed grains 89 per cent. both this year and last year and 92 per cent., the average; for hay and clover 80 per cent. compared with 98 per cent., the average.

A telegram from the Alberta Department of Agriculture, dated June 12, states that the general season is somewhat late, especially between Wetaskiwin and Crossfield. The weather is cool, but crops are doing well. No frost has been reported since June 5. All grain for threshing is sown, but there is 40 per cent. for green feed yet to sow. There is plenty of moisture in all parts.

Shorthorn Week at Chicago.

The Chicago series of Shorthorn sales, comprising four events, which ended on June 8, included in all 237 animals and they sold for \$265,615 or an average of \$1,120. Frank R. Edwards made an average of \$1,005 on the 45 lots he offered, while Thos. Stanton realized an average of \$1,212 on 23 lots. The famous Carpenter & Ross importation, made up of 107 head, sold for \$146,575 or an average \$1,370. The top price in this highly satisfactory vendue was \$7,000, which F. A. Gillespie & Sons paid for Caledonia by the Duthie bull, Proud Emblem. Brandsbys Jinny 19th, a noted English winning female went to the Bellows herd at an even \$3,000.

The Man Behind the Cow.

EDITOR "THE FARMER'S ADVOCATE":

During recent years, much scientific knowledge has been made available with the object of making the dairy cow a more profitable investment. Special emphasis has been placed on the various phases of breeding, selection, feeds and feeding thus involving the more or less complex operation of figuring balanced rations. Undoubtedly much good has accrued. Yet the application of this scientific knowledge in a sufficiently practical way to get results depends very largely on the man himself, who is personally engaged in the business. This point of contact between knowledge and application is too frequently overlooked. When the cow on test makes a record that startles the dairy world, we invariably think of the man behind that particular cow. What are his special characteristics? What does he know? What does he do?

If a careful analysis is made of the circumstances it will generally be found that his ability to do things from the standpoint of commonsense is of more importance than merely knowing how. Better returns would often be secured if we always practised the best that we knew. But no dairyman of ambition will want to stand still. He will keep his eyes open to new possibilities in his line. Here he will need to exercise a degree of discrimination. To be an idealist and dream of future successes is all right and quite commendable, but planning for the future must go hand in hand with good, honest hustling. Some, there are, who look askance on every new idea that crops up. The fact that it is not in their regular routine, causes them to be suspicious of its utility. This is going to the other extreme. The man behind the cow should possess openmindedness as one of his chief characteristics.

Of course dairying, as an occupation, has its obstacles to overcome. The greater the success the greater the difficulties in attaining it. The man who is in and out at the first excuse never gets anywhere. To be a winner he must possess stability. In a rural district an association of farmers had surrounded a local cemetery with a new fence and a handsome gate. To complete the job they sought a motto to place over the entrance. Not being able to agree to anything definite, an appeal was made to Pat, the man who had dug the post holes. "Sure, and the best one that I can think of," replied Pat, is "We're in it to stay". The man who adopts Pat's motto in the dairy business and lives up to it has in him at least one important element of success.

The successful dairyman must be a constant student of "cowology". Considerable knowledge may be obtained by a careful observation of the animals under his care. He must be sufficiently familiar with type and pedigree and know what degree of perfection is indicated. He must understand how to keep a cow in normal condition or provide a remedy when occasion demands it. A knowledge of sanitation is also essential if the herd is to be maintained constitutionally strong. While experience will teach much, the information thus obtained should be supplemented by the reading of good dairy literature. This will include the bulletins and reports from experiment stations, articles in the agricultural press, etc. Life is too short to depend entirely on personal investigation. The wise man seeks a knowledge of his business from every possible source then selects that which is best adapted to his needs. These enquiries afield cannot but add to his capacity as a dairyman.

Someone is responsible for saying, "The man who breeds scrub cows is a scrub; he who breeds grades is a grade, but the man who breeds pure-breds of high rank is a thoroughbred." Of course this statement needs modifying. Many a man who to-day stands high in the live-stock world started with scrubs, for financial reasons, and gradually worked his way to the top. With such a man behind the cow a general advance is not long in taking place. He knows his cows not so much as Jerseys, Holsteins or Ayrshires, but first as individuals. He does not try to produce a May Echo out of an ordinary cow because her name appears in the herd book. He weighs and tests the milk of each cow to ascertain her capacity. There is no guess work about it. Having this information at hand he is able to treat each animal according to her special requirements. Knowing what these are each cow gets the feed and care that will enable her to do her best, not some other cow's best. Such qualifications have developed many a splendid herd throughout the country, and here and there an animal with a magnificent record. To achieve this the man behind the cow may be rightly termed a thoroughbred and deserves to be ranked with the world's greatest.

Elgin Co., Ont.

J. HUGH MCKENNEY.

An Angus Triumph.

Aberdeen-Angus enthusiasm ran high on June 5 and 6 when the herds of Chas. Escher Jr., Botna, Ia., and Escher and Ryan, Irwin, Ia., were dispersed. The 123 head which made up the combined offering sold for \$95,285 or an average of \$774. Blackcup McHenry 87th sold for \$3,050 the top price of the two days' selling.

The United Farmers of Ontario will hold conventions at Brantford on June 27th, Ingersoll the 28th, Tilbury the 29th, a picnic at Forest on the 30th, Exeter on the afternoon of July 2nd, Seaforth in the evening of July 2nd, Listowel July 3rd, a picnic at Varney in the afternoon of July 4th, Durham, evening of July 4th.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending June 14

RECEIPTS AND MARKET TOPS

Dominion Department of Agriculture Live Stock Branch, Markets Intelligence Division

	CATTLE						CALVES					
	Receipts		Top Price Good Steers (1,000-1,200)				Receipts		Top Price Good Calves			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	4,560	4,017	3,640	\$11.75	\$10.35	\$12.10	1,359	1,118	901	\$14.50	\$12.25	\$14.50
Montreal (Pt. St. Charles)	474	408	631	11.50	9.75	12.00	2,280	1,128	1,342	13.00	10.00	13.25
Montreal (East End)	619	459	677	11.50	9.75	12.00	1,625	1,601	1,772	13.00	10.00	13.25
Winnipeg	2,296	1,074	2,836	11.40	9.50	12.50	155	141	228	13.00	10.50	13.00
Calgary		1,168	1,148		7.25	9.50		6				9.00

	HOGS						SHEEP					
	Receipts		Top Price Selects				Receipts		Top Price Good Lambs			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	7,281	8,171	6,557	\$16.00	\$10.85	\$16.50	457	1,494	367	\$18.00	\$13.50	\$16.00
Montreal (Pt. St. Charles)	1,301	950	1,503	16.10	11.40	16.50	209	549	326	* 9.00	* 8.00	*10.00
Montreal (East End)	650	913	856	16.10	11.40	16.50	320	888	275	* 9.00	* 8.00	*10.00
Winnipeg	6,523	6,412	6,897	14.50	10.00	15.15	39	8	28	13.00	10.50	
Calgary		4,090	2,374		9.50	14.50		256	24		10.00	

*Quotations per head.

Market Comments.

Toronto (Union Stock Yards.)

Twenty-nine hundred head of cattle were on sale at the Union Stock Yards on Monday, and in addition the abattoirs received two hundred and fifty head direct from Western Canada, and several loads of distillery-fed steers from Ontario points. The supply offered for sale was above trade requirements, and in what proved to be an extremely slow market, buyers were again successful in reducing prices by 50 to 75 cents per hundred on heavy steers, and from 35 to 50 cents per hundred on all other grades of butcher cattle. No demand existed for heavy steers, as the abattoirs have been able to fill most of their requirements, which at the best are rather limited for this class, from supplies of their own and from distillery-fed steers that are available at the present time. As a consequence, about three hundred head, or almost the entire offering of heavy steers, were shipped from the market to Buffalo, where a wider outlet exists. The week was a poor one for the drovers and most of them were forced to accept losses, which, in individual cases, reached \$200 and \$300 per load. Trading on Tuesday continued slow at the decline, but considerable activity was displayed on Wednesday. The market was quiet again on Thursday, although most of the offerings were sold out at prices about steady with Monday's decline. Bids as high as \$11.85 were made on choice heavy cattle, but \$11.50 per hundred was as high as buyers cared to offer on the bulk; consequently, very few sales were put through. Heavy butcher steers sold at \$11.00 to \$11.65 per hundred, with one load of good steers reaching \$11.75, the top price of the week for this class. Light handy butcher steers and heifers sold from \$10.75 to \$11.25 per hundred for choice quality, with a few loads reaching \$11.50. Choice bulls reached \$11.00 per hundred in one or two instances, but the bulk sold from \$9.50 to \$10.50. The best cows offered, ranged in price from \$9.25 to \$10.25. Stockers and feeders were in slow demand at a 25 to 40 cents' decline, good feeders selling from \$9.50 to \$10.00, and good stockers from \$8.50 to \$9.00. Calves came forward in liberal numbers and met a steady demand at from \$13.00 to \$14.50 per hundred for good veal with a few choice ones reaching \$15.00.

Lambs and sheep are moving a trifle more freely now with choice spring lambs selling from \$17.00 to \$18.00 per hundred, clipped light sheep from \$8.00 to \$9.00, and heavy at \$7.00 to \$8.00. The feeling is easier in this department. Select hogs sold on Monday at last week's quotations but were reduced on Tuesday by 50 cents per hundred, selling at \$15.50 fed and watered. Light hogs were \$1.00 per hundred lower, while sows sold at \$12.50 and stags at \$10.50. Buyers are looking for lower hog prices for next week.

Of the disposition of the live stock from the Union Stock Yards for the week ending June 7th, Canadian packing houses purchased 668 calves, 124 butcher bulls, 206 heavy steers, 2,642 butcher cattle, 8,229 hogs, and 228 sheep. Local butchers purchased 371 butcher cattle, 158 hogs, and 97 sheep. Shipments to

CLASSIFICATION	No.	TORONTO (Union Stock Yards)			
		Avg. Price	Price Range Bulk Sales	Top Price	
STEERS					
heavy finished	141	\$11.74	\$11.25-\$12.00	\$12.00	
STEERS					
good	587	11.25	11.00-11.65	11.75	
1,000-1,200 common	44	10.27	9.75-10.75	11.00	
STEERS					
good	1,191	11.02	10.75-11.50	11.50	
700-1,000 common	306	9.84	9.50-10.25	10.50	
HEIFERS					
good	513	11.24	10.75-11.50	11.75	
fair	203	10.06	9.75-10.25	10.25	
common	37	9.15	8.50-9.50	9.50	
COWS					
good	324	9.78	9.50-10.50	10.75	
fair	679	7.71	7.25-9.50	9.00	
BULLS					
good	81	9.97	9.50-10.50	11.00	
common	45	8.88	8.50-9.50	10.00	
CANNERS & CUTTERS	26	6.00	5.75-6.25	6.75	
OXEN					
CALVES	1,359	13.00	12.50-14.00	14.50	
STOCKERS					
good	219	8.88	8.50-9.25	9.25	
450-800 fair	76	8.35	7.75-8.75	8.75	
FEEDERS					
good	85	9.96	9.50-10.25	10.25	
800-1,100 fair	3	9.25	9.00-9.75	9.75	
HOGS					
selects	6,512	15.66	15.50-16.00	16.00	
heavies	17	15.85	15.00-16.00	16.00	
lights	537	14.69	14.50-15.00	15.00	
stags	204	12.61	11.50-13.00	13.00	
sows	11	10.87	10.50-11.00	11.00	
SHEEP					
heavy	15	7.45	7.00-8.00	8.50	
light	234	9.12	8.00-10.25	10.50	
common	96	5.80	5.00-6.50	6.50	
LAMBS					
good	105	17.37	17.00-18.00	18.00	
common	7	16.14	15.00-17.00	17.00	

*Quotations per head.

country points amounted to 14 calves, 94 milch cows, 307 stockers, 148 feeders, 49 hogs, and 18 sheep. There were 18 heavy steers shipped to Buffalo market and these comprised the total United States' shipments from the market, during the week.

The total receipts at the Union Stock Yards from January 1st to June 7th, inclusive were: 98,606 cattle, 23,987 calves, 12,956 sheep, and 223,372 hogs; compared with 108,840 cattle, 21,598 calves, 15,519 sheep, and 215,129 hogs, received during the similar period of 1916.

Montreal.

The market for live stock during the week was most unsatisfactory, the outstanding feature being a falling off in the demand for all classes of stock. Even the best informed apparently had not anticipated this condition, as some of the packers are reported to have contracted heavily for distillery cattle, at the prices which prevailed on the market, about two weeks ago and which were about \$1.50 per hundred higher in price than those sold during the past week. The supply of stock was slightly below normal in most grades but proved too large for the demand. A few heavy cattle sold from \$11.00 to \$11.50 per hundred, but the bulk of this class brought

from \$10.50 to \$11.00. Butcher cows of the poorer grades were plentiful and prices for these suffered severe reductions. Cannery men were few in number and held about steady. Calves opened the week fairly strong but eased off about \$1.00 per hundred later in the week. Sheep prices declined about \$1.00 to \$1.50 per hundred, and spring lambs were reduced about \$1.00 per head, on a slow market. Hogs sold on Monday at \$16.00 to \$16.25 per hundred, off cars, for selects, but dropped 25 cents later in the week. There are too many sows coming in and packers have announced that beginning with next week this class will be cut \$3.00 per hundred, instead of \$2.00, as has been the custom heretofore.

PT. ST. CHARLES.—Of the disposition of live stock from the Pt. St. Charles market for the week ending June 7th, Canadian packers and local butchers purchased 1,110 calves, 66 cannery and cutters, 49 bulls, 2 heavy steers, 473 butcher cattle, 1,253 hogs, 228 sheep, and 98 lambs. Shipments to United States' points totalled 232 calves.

The total receipts at the Pt. St. Charles Yards from January 1st to June 7th, inclusive, were: 15,900 cattle, 31,358 calves, 5,686 sheep, and 30,342 hogs; compared with 16,925 cattle, 17,157 calves, 6,126 sheep, and 48,452 hogs

received during the corresponding period of 1916.

EAST END.—Of the disposition of live stock from the East End market for the week ending June 7th, Canadian packers and local butchers purchased 1,442 calves, 677 butcher cattle, 798 hogs, and 275 sheep. Shipments to United States' points totalled 280 calves.

The total receipts at the East End Yards from January 1st to June 7th, inclusive, were: 15,441 cattle, 25,738 calves, 5,755 sheep, and 19,702 hogs; compared with 13,207 cattle, 23,027 calves, 7,448 sheep, and 25,961 hogs, received during the corresponding period of 1916.

Winnipeg.

The market for butcher cattle opened slow and drabby, and continued so until Wednesday on which day there was a more attractive demand, followed by additional strength in all grades on Thursday. The receipts were comparatively light, being nine hundred head fewer than those of the previous week. The quality of the bulk of the offerings ranged from common to fair and very few choice cattle were offered. Most of the cattle now being received are grass fed and are meeting with poor demand, whereas stall-fed beef is quickly picked up by the buyers. On five cars of the latter from

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Capital Paid Up - - - 12,900,000
Reserve Funds - - - 14,300,000
Total Assets - - - 270,000,000

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Alberta, \$11.50 per hundred was bid, but the offer was refused and the stock shipped to Chicago by the owners. The market on all grades of butcher cattle, with the exception of extra choice, closed 50 cents to \$1.00 per hundred lower than ten days ago, butcher steers selling from \$9.00 to \$10.50 per hundred, with a very few reaching \$11.00.

Of the disposition of live stock from the St. Boniface Stock Yards for the week ending June 7th, Canadian packing houses purchased 27 calves, 893 butcher cattle, and 6,015 hogs; local butchers took 156 calves, 437 butcher cattle, 260 hogs, and 14 sheep. Shipments back to country points amounted to 61 calves, 486 stockers and 75 feeders. Shipments of live stock from the market other than to country points were: 5 bulls, 37 butcher cattle, and 127 hogs. United States' shipments amounted to 452 butcher cattle, 58 stockers, and 79 feeders.

The total receipts at the St. Boniface Stock Yards from January 1st to June 7th, inclusive, were: 43,727 cattle, 2,471 calves, 647 sheep, and 124,726 hogs; compared with 22,002 cattle, 3,123 calves, 1,078 sheep, and 157,474 hogs, received during the corresponding period of 1916.

Buffalo.

Cattle.—Cattle prices were advanced at Buffalo last week, on the dry-fed kinds, generally from a dime to a quarter, the advance taking in shipping steers, handy butchering cattle and yearlings. Shipping steers of good weight sold up to \$13.75, equaling the highest price at any live-stock market this year, some of which receive heavy percentage killing steers out of the corn belts. Yearlings made record prices of \$13.15 to \$13.50, and handy butchering steers sold up as high as \$12.75 to \$13. It was the highest ranged market Buffalo ever witnessed on grain-fed cattle. Grass cattle, of which there was a light sprinkling, sold under the strictly dry-feds as much as seventy-five cents to a dollar. Stocker and feeder market was better than for some weeks past, best feeders being quoted up to \$9.25 to \$9.50. Bulls on the dry-fed order sold strong, grassy grades lower. Milk cows and springers sold very high, there being included some Canadians which sold in large bunches up to \$110 per head. Several loads of Canadian cattle were among the offerings the past week, not many well-finished kinds, best shipping steers running from \$12.20 to \$12.25, with light steers and heifers mixed ranging from \$10.50 to \$11.25. Offerings for the week totaled 3,900 head, as against 3,700 for the previous week, and 4,275 head for the corresponding week a year ago. Quotations:

Shipping Steers.—Choice to prime natives, \$13 to \$13.75; fair to good, \$12.50 to \$12.75; plain, \$11.25 to \$11.75; very coarse and common, \$10.50 to \$11; best heavy Canadians, \$12 to \$12.50; fair to good, \$11.25 to \$11.75; common and plain, \$10 to \$10.50.

Butchering Steers.—Choice heavy, \$12.25 to \$13; fair to good, \$11.50 to \$12; best handy, \$12 to \$12.50; fair to good, \$9.75 to \$11; light and common, \$9.25 to \$9.50; yearlings, prime, \$12.50 to \$13.15; fair to good, \$11 to \$12.

Cows and Heifers.—Best heavy heifers, \$11 to \$11.50; best butchering heifers, \$10 to \$10.50; fair butchering heifers, \$8.25 to \$9.75; light and common, \$7.50 to \$8; very fancy fat cows, \$10.25 to \$11; best heavy fat cows, \$9.50 to \$9.75; good butchering cows, \$8.50 to \$9; medium to

fair, \$7.75 to \$8.25; cutters, \$6.75 to \$7.25; canners, \$6 to \$6.50.

Bulls.—Best heavy, \$10.25 to \$11; good butchering, \$9.50 to \$10.

Stockers and Feeders.—Best feeders, \$8.50 to \$9.25; common to fair, \$7.75 to \$8.25; best stockers, \$8 to \$8.75; common to good, \$6 to \$7.75.

Milchers and Springers.—Good to best, in small lots, \$90 to \$115; in carloads, \$75 to \$85.

Hogs.—Prices continued on the decline the first two days of last week. Monday the top was \$16, with bulls selling at \$15.75, and Tuesday no sales were above \$15.90, with majority going from \$15.65 to \$15.75. Wednesday the market reacted, some sales being a dime higher; Thursday values showed another jump of five to ten cents, and Friday a further gain of a quarter was noted on most grades, top being \$16.35, and kinds that sold the fore part of the week at \$15.75 brought up to \$16.25. Monday and Tuesday pigs sold at \$14.50; Wednesday and Thursday bulk moved at \$14.75, and Friday they sold up to \$15. Roughs, \$13.85 to \$14.25, and stags \$13 down.

For the entire week receipts were 21,000 head, as against 18,033 head for the week before, and 24,200 head for the same week a year ago.

Sheep and Lambs.—Receipts last week were exceedingly light, and market was active and firm. Topy spring lambs sold from \$17 to \$18, with a few \$18.25 and \$18.50, and the range on dry-fed yearling lambs was from \$15 to \$15.35, while those that showed grass went from \$14.50 down. Top for wether sheep was \$11, and the ewe range was from \$10 down, generally. Offerings for the past week totaled 4,200 head, as compared with 5,053 head for the week previous, and 3,900 head for the same week a year ago.

Calves.—Last week opened with top veals selling mostly at \$15; Tuesday, Wednesday and Thursday best lots went at \$15 and \$15.25, and Friday the bulk landed at \$15.75. Handy cull grades, for which the demand was keen, sold within \$1 per cwt., of the tops. Receipts last week aggregated 3,450 head, for the week previous there were 4,012 head, and for the same week a year ago receipts were 3,325 head.

Toronto Produce.

Receipts of live stock at the Union Yards, West Toronto, on Monday, June 18, consisted of 122 cars; 2,175 cattle, 220 calves, 785 hogs, 144 sheep and lambs. Market fairly active; butcher cattle steady. Cows and bulls, 25 to 35 cents lower; milkers and springers, no demand; ten to fifteen dollars lower. Stockers and feeders and grass cows, slow prices steady. Spring lambs 25 to 50 cents lower. Sheep light, strong; heavy, very slow; calves steady. Hogs steady; packers quote fifteen dollars fed, for balance of week.

Breadstuffs.

Wheat.—Ontario, No. 2, winter, per car lot, \$2.60 to \$2.65; No. 3, winter, per car lot, \$2.58 to \$2.63, (according to freights outside). Manitoba track, bay ports.—No. 1 northern, \$2.78; No. 2 northern, \$2.75, nominal.

Oats.—Ontario, No. 2 white, not quoted. Manitoba oats, no official quotations.

Barley.—Malting barley, nominal. Peas.—According to freights outside; No. 2, nominal.

Corn.—American (track, Toronto), No. 3 yellow, \$1.83, nominal.

Rye.—No. 2, \$2, nominal.

Flour.—Manitoba first patents, in jute bags, \$13.80; second patents in bags, \$13.30; strong bakers', in jute bags, \$12.90. Ontario, winter, according to sample, in bags, \$11.50 to \$11.60.

Hay and Millfeed.

Hay.—Track, Toronto, extra No. 2, per ton, \$13 to \$13.50; mixed, \$9 to \$11.50.

Straw.—Car lots, per ton, \$9, track, Toronto.

Bran.—Per ton, \$33. Shorts.—Per ton, \$40; middlings, per ton, \$44.

Good feed flour, per bag, \$2.80 to \$2.90.

Hides and Skins.

City hides, flat, 22c.; country hides, cured, 22c.; country hides, part cured, 18c.; country hides, green, 17½c.; calf skins, per lb., 35c.; kip skins, per lb., 27c.; sheep skins, city, \$2.50 to \$3.50; sheep skins, country, \$1.50 to \$3; lamb skins, spring, per lb., 30c. to 60c.; horse hair, per lb., 42c.; horse hides, No. 1, \$6 to \$7; No. 2, \$5 to \$6. Wool, unwashed, fine, per lb., 43c.; wool, unwashed, coarse,

per lb., 39c. Tallow, No. 1 cake, 11c. to 12c. per lb.; tallow, solids, 9c. to 10c. per lb.

Country Produce.

Butter.—Butter was again a little easier in price on the wholesales during the past week, selling as follows: Creamery, fresh made pound square, 40c. to 41c. per lb.; creamery solids, 37c. to 38c. per lb.; dairy, 33c. to 34c. per lb.; separator dairy, 35c. to 37c. per lb.

Eggs.—New-laid eggs also declined in price, selling at 38c. to 40c. per dozen, wholesale.

Cheese.—The cheese market kept about stationary. Old cheese selling at 30c. per lb.; new at 23c. to 24c. per lb.; and new twins at 24c. per lb.

Poultry.—Spring chickens came in a little more freely and declined slightly in price. Roosters, 16c. per lb.; fowl under 5 lbs., 23c. per lb.; fowl over 5 lbs., 25c.; spring chickens, 40c. per lb.; turkeys, 18c. per lb. (Live-weight prices).

Beans.—The bean market is exceptionally high, prime whites selling at \$9, and hand-picked at \$9.60 per bushel; while Limas sell at 18c. to 19c. per lb., (wholesale).

Wholesale Fruits and Vegetables.

Apples are practically off the market, the few offered being very poor quality.

California fruits increased in quantity; apricots, plums and peaches selling at \$3.25 to \$3.50 per case, and cherries at \$2.50 to \$3 per case.

Lemons advanced; the first cars of the Verdill lemons for this season arrived during the week and are selling at \$4.75 to \$5 per case; the Californias bringing the same prices.

Oranges remained high priced; some good quality Navels still arriving, sold at \$4 to \$4.25 per case. The late Valencia came in in heavier shipments and sold at \$4 to \$4.25 per case.

Pineapples have been rather scarce, the Cuban variety selling at \$3.75 per case.

Rhubarb has remained about stationary in price at 20c. to 25c. per dozen bunches.

Strawberries have been coming in freely, but the demand has been very heavy, causing prices to remain about stationary at 17c. to 18c. per box.

Tomatoes have been arriving from Mississippi and Texas during the week, the former selling at \$1.25 to \$1.50 per 4-basket carrier, and the latter at \$3.50 per 6-basket crate. The home-grown hot-house have not been shipped very heavily, and sold at 25c. per lb. for No. 1's, and 20c. per lb. for No. 2's.

Asparagus came in fairly well and gradually declined in price, closing the week at \$1 to \$1.50 per 11-qt. basket.

Beets have been quite scarce and still bring \$2.25 per hamper.

Beans.—Green and wax beans have been of rather poor quality, lately selling at \$2.75 to \$3 per hamper.

Cabbage has steadily declined in price, and now sells at \$3 to \$3.50 per crate.

Carrots have kept about steady in price at \$1.75, \$2 and \$2.25 per hamper.

Cucumbers were quite firm until the end of the week when they became a little easier; the Leamington hot-house selling at \$2 per 11-qt. basket for No. 1 grade and \$1.25 for No. 2 grade. Imported hot-house at \$3 per basket of 30, while imported outside grown sold at \$3.75 to \$4 per hamper.

Lettuce, radishes, spinach and water-cress have been a drug on the market, with the exception of really first-class quality stuff. The Canadian Boston Head lettuce selling at 75c. to \$1.25 per dozen; Leaf lettuce at 20c. to 25c. per dozen; radishes at 10c. to 12½c. per dozen bunches, and spinach at 40c. to 60c. per bushel.

Onions declined; Texas Bermudas selling at \$2.40 to \$2.50 per crate.

Potatoes.—New Brunswick Delawares were practically off the market; the few received selling at \$5 per bag; Ontarios at \$4.25 per bag, and Westerns at \$3.75 to \$4.25 per bag.

New potatoes have a heavy demand, even though they are high priced; Bermudas selling at \$13 per bbl., and Virginias at \$12 to \$13 per bbl.

Chicago.

Cattle.—Beeves, \$9 to \$13.70; stockers and feeders, \$7.30 to \$10.60; cows, and heifers, \$6 to \$11.80; calves, \$10.50 to \$15.50.

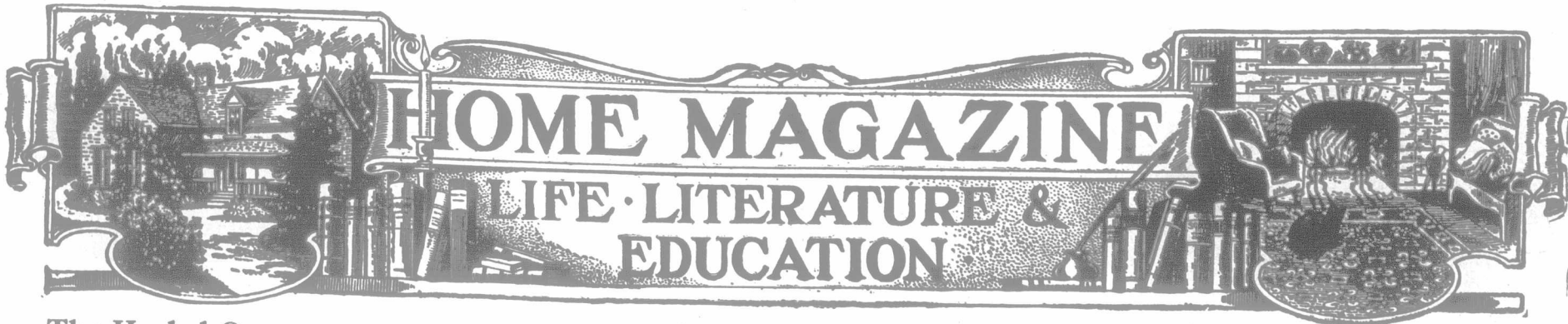
Hogs.—Light, \$14.65 to \$15.75; mixed, \$15 to \$16; heavy, \$14.95 to \$16.05 rough, \$14.90 to \$15.20; pigs, \$10.50 to \$14.60.

Sheep.—Lambs, native, \$10.40 to \$16.

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Montreal Produce.
Horses: Prices continued steady, as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$200 to \$250 each; light draft, 1,400 to 1,500 lbs., \$150 to \$200 each; small horses, \$100 to \$125 each; culls, \$50 to \$75, and choice carriage and saddle horses, \$200 to \$225 each.
Dressed Hogs.—The market for dressed hogs declined during the week in sympathy with the market for live. Packers paid 23c. to 23½c. per lb. for abattoir-dressed stock, whereas a few weeks ago the price was 1c. above these figures. Demand was not specially active. This may be due to some extent to the warmer weather.
Potatoes.—Although new stock is now being imported rather freely, the consumption of old stock is not being greatly affected thereby. The high price, however, is having its effect, and potatoes are no longer served on a large number of tables. Prices were steady with P. E. 1 stock at \$4.50 per 80 lbs., while Quebec stock sells at \$4.25 per bag for whites.
Maple Syrup and Honey.—Fine syrup brought \$1.75, and good quality \$1.65, with lower grades as low as \$1.45. Maple sugar was 15c. per lb. Honey was steady with white clover comb at around 16c. per lb., brown comb 13½c., white extracted 14c., brown 13c., and buckwheat honey 11c. per lb.

Eggs.—The price of eggs declined slightly upon two occasions during the week. This decline was generally attributed to the warmer weather, but other factors may also be at work. In any case, selected eggs were quoted at 40c. per doz., which is probably the lowest price of the year. No. 1 candled stock was quoted at 37c., and No. 2 candled at 35c. per doz.
Butter.—The price of creamery showed very little change last week. The make is large and the quality is choice. Quotations for finest stock were 39c. per lb., with fine at 38c. to 38½c. Dairies were 33c. to 36c., and Manitoba dairies about 31c. per lb.
Cheese.—The market is in a somewhat peculiar position owing to the manner in which the British trade is being carried on. Some are quoting 22c. to 23c.
Grain.—The price of wheat was stronger and feed wheat sold here at \$1.48, with tough wheat at \$1.42 per bushel, ex-store, Manitoba No. 4 barley was \$1.40, extra track; No. 2 Canadian Western oats, 78½c. to 79½c.; No. 3 and extra No. 1 feed, 77c. to 78c.; No. 1 feed, 75c. to 76c., and No. 2, 73c. to 74c., ex-store.
Flour.—The price of flour advanced. Manitoba first patents were \$13.90 per barrel, seconds were \$13.40, and strong bakers', \$13.20, in bags. Ontario 90 per cent. patents were \$13 to \$13.30 in wood, and \$6.25 to \$6.40 for bags.
Millfeed.—Bran was quoted a little higher at \$34 per ton; shorts at \$40; middlings, \$42 to \$44; mixed mouille, \$46 to \$47, and pure grain mouille, \$49 to \$51 per ton.
Sale Dates.
June 27.—C. F. Jackson, Middlemarch, Holsteins, Shorthorns and grades.
June 28.—J. M. Gardhouse and J. A. Watt, Elora, Ont., Shorthorns.
June 29.—Mitchell Bros., Burlington, Ont.; Shorthorns.
July 3.—A. and J. A. McKillop, Argyle Farm, West Lorne, Shorthorns.
July 3.—Adam Armstrong and Matthew Wilson, Fergus, Ont., Shorthorns, grades and swine.



The Healed Ones.

BY THEODOSIA GARRISON.

Should I win to Paradise (since even sinners enter there),
I shall not seek the high Saints with crown and aureole,
But I shall find the healed ones, humble ones, that centre there,
Who followed through all gratitude the love that made them whole.

He who once was blind shall tell me of his sight again,
Tell me of the glory that flooded land and sea,
When across his opened eyes surged in golden light again
The yellow sands, the blue waves, the sun of Galilee.

I shall not seek the Martyrs, the staunch souls victorious,
Those who won to ecstasy from faggot and from rod,
But I shall seek the simple folk in no fashion glorious,
The broken straws of mankind that proved the winds of God.

He who once was dumb shall tell me his first word again;
He who long was helpless shall tell his joy to me;
When first his bonds were broken, and his bound limbs stirred again,
He shall tell me of the word and touch that made him free.

Never Saint or Martyr, when heaven opened wide to him,
Knew a greater joy than these whom I shall seek therefore.
And a little lad shall tell me what first his mother cried to him,
When he who limped out sighing, ran shouting through the door.
—"Good Housekeeping."

Through the Eyes of a Canadian Woman in England.

England, May.
Here we are well into May, and I have not had an hour's leisure to spend at my desk. Since last writing I have been doing voluntary work in a military hospital in the sleepy old town of Rugby, which has been made famous by "Tom Brown's Schooldays."

Spring days with few exceptions have been very chilly, and garden produce, which never in our history was so badly headed, is very slow in growth; the cold, however, has not injured the blossoms. Everywhere the grass is dotted with pink and white daisies (which Bobby Burns calls "Wee, modest crimson-tippet flower"), and velvety wall-flowers and huge clumps of forget-me-nots make the earth fragrant and beautiful. I have never before so revelled to my heart's content in spring flowers. Right against the window of our little nurse's cottage are great masses of snowy rhododendron and huge purple pansies and yellow cowslips run riot in the shade of its branches. Indoors everything is bare and uninteresting—like soldiers' quarters—with only the cot beds and necessary furnishings, the only personal touches being the photographs of our loved ones in khaki upon the wall. War-time lodgings to be sure, but when the day's work is over we are glad to come back to it all, to seek the much-needed rest and prepare for the morrow. For there is a great deal of work to be done for our wounded soldiers. There are sad sights before us all day long; legless and armless men, and others who from long hours in the trenches have lost the use of their feet for the time being, besides those with painful wounds received recently in France. But a spirit of optimism and cheer prevails among

them and there is never a word of complaint. The bright-eyed, cheerful little Tommy who is always going about trying to be useful with the hand he has left, often says, "It is good to be here—so much better than the trenches." Sometimes wives and children come to see them, and we are all so happy for their sakes. Of course, those who can be cured expect to go back to France again, but whether they dread it or not no one ever knows. I often wish I had some spare moments to listen to their stories, but am usually too busy to pause very long.

The hospital is a large and beautiful old stone mansion built in 1623. It is approached by an avenue of beeches, which are now of a delicate green and almost meeting overhead, and is covered with sturdy ivy. Inside are many fireplaces and stone floors, which I am sure were never trodden upon so continuously as now. It is said the ghost of Addison, who once occupied it, still walks the corridors at night. The whole neighborhood believes it to be haunted. At any rate one of the Sisters who sleeps in an attic room declares she is awakened every morning between the eerie hours of one and three by a presence in the room, and that she hears uncanny noises in the hall outside her carefully bolted door. I am sure there is not another nurse in the hospital who would be willing to occupy that mysterious chamber, but she is an Australian and not easily daunted. The only modern feature is a large recreation room which generous citizens have provided. It is commodious and comfortable. There are large easy chairs everywhere, and a fine piano and several billiard tables. It is here that a lady comes twice a week to teach them fancy work

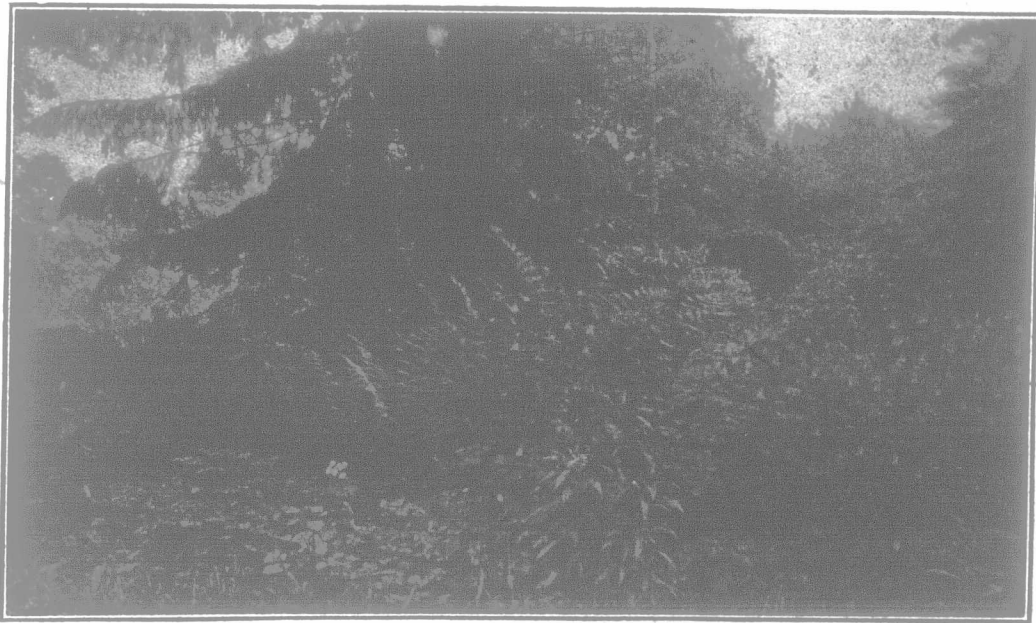
of their former occupations, their only fear being that they might have too long to wait—and hoping that they might never hear the word "war" again. They also spoke with scorn of the people who stooped to join a "strike" while the whole nation was striving for an ultimate peace.

Everyone in England who has a conscience is working to-day. Ladies of title and wealth mingle in the hospital with people who perhaps can only spend a few hours from the necessary work of their homes. They wash dishes and cook and scrub, and carry heavy trays and do all the disagreeable work of a large institution willingly. Nor is the path of the V. A. D. all roses, for she is the very last person in the hospital to receive any consideration. She does not seem to look for it; her only pleasure lies in the feeling that she is "doing her bit" for those who have given up so much.

I have just been interrupted by a boy at the door with a leaflet which he is circulating. It is in large type, and reads thus: "The Germans are trying to starve us. Four-fifths of our wheat, one-third of our meat, and all our sugar come overseas. German submarines are reducing these supplies. Therefore, we must eat less to maintain the stocks we have. Our men at the front who are fighting for us must have full rations. It is for you to economize at home and help to defeat the Germans who boast that we shall give in if we do not get our usual supplies of food. The people are put on their honor to adopt the voluntary ration, and thus prevent the necessity of compulsory rationing by food tickets. No honorable man or woman can refuse their appeal, etc. Signed Devonport." This is accompanied by a notice of a meeting on the green where prominent speakers will make an appeal

can do as we please." They entertain frequently and lavishly with no thought for economy in this respect. The king's proclamation (regarding food) was read in all places of worship last Sabbath, but it could be made much more impressive if read out in places of amusement, theatres, music halls and kinemas as well, and might touch the hearts and consciences of some who do not seem to realize that we are in a state of siege. Wherever you go the question of food is the chief topic of conversation, so it is rather difficult for me to get away from it. Everything is so high in price that it takes a clever woman to provide enough food for her household which will be wholesome and of sufficient variety, and still keep within a moderate expenditure. Substitutes for sugar, flour, butter, potatoes and eggs are being largely used, but I should never be guilty of saying that they are attractive to the palate. Porridge has become a popular breakfast dish among English people, while eggs are still four cents each. A man entered a bus on his way to his office not long ago with some egg adhering to his moustache and was accused by his neighbor of putting on "swank"! People have gone largely into poultry-keeping, and now it is rumored that the hen may have to go, attention being called to the fact by articles in all the leading newspapers on "Is the hen eating our bread?" Some joker has changed it into "Is the Hun eating our bread?" for it is well known that there are still numbers of Germans living undisturbed in our midst. Our new allies in the United States are already taking greater precautions than we are for the future, but it is beneath the dignity of the Britisher to do anything without due consideration.

People are not yet done talking of the great fame Canadians have won for themselves in the taking of Vimy Ridge, one of the outstanding victories of the war. An officer who participated in it and is now in England has given us a vivid description of it. On Christmas day his brigade were ordered to lay plans for the attack. From that time until April first they rehearsed it daily, going so far as to construct counterparts of the German trenches behind their lines. It was even laid down how long the men were to take in making the attack. The result was that the position was in the hands of the Canadians just three minutes inside the time they had planned for! Of course, the casualty lists were long, but military experts consider that the proportion of losses was very small in comparison to the greatness of the undertaking. We are all very much "fed up" (as the soldiers say) on the war now. It is getting to be such an old story that people have ceased making predictions as to when it will all be over. One realizes the dreadful consequences of the war in mixing daily with these broken men. As soon as they are able they are sent back to go through the long days and nights of horror again. The walking cure is now being practiced to fit them for their return. Somewhere in England the camp stands in the heart of a great smooth country where there are four thousand men at a time and an assortment of officers to look after them. When the men arrive at this place after coming out of the hospital they are sorted out by a medical officer and assigned to groups according to their degree of unfit-



Wild Columbine and Ferns on Grounds of W. A. Child, Hamilton. Illustration from Horticultural Societies' Report, 1916.

which some of them do most beautifully now. There is also a stage at one end, for very often comedians and singers come to give the boys a treat. It does one's heart good to hear them join heartily in the choruses and laugh over the nonsense which makes them forget their troubles for a while. Here, too, are shelves full of books which kind people have donated, and I think they get more real pleasure out of these than anything else.

I used to think a year or two ago that our soldiers would be unfitted by the war for other work after their exciting life in the open, but I have changed my mind. I heard a group of Tommies discussing it yesterday. One was a gardener, and the other men had worked on farms and in factories. They were all looking forward with a positive longing to the resumption

to the people of this district. If England had enforced compulsory rationing a year ago we should be in a better position today than we are, and she still goes on appealing to the honor of the people, while every day men and women are before the courts for hoarding. This morning's "Mail" cited a case where a woman was fined five pounds because a loaf of bread was found in the garbage collected from her house! While many people are honorably doing everything they can to keep within the prescribed allowance, and carefully weigh the flour, sugar, potatoes, and other scarce commodities before cooking them, there are hosts of others to whom the idea of rationing never occurs. If the subject is mentioned to them they smile complacently and say: "Oh, we have our own wheat and potatoes, so we

ness. In the morning they start walking at eight-thirty, and the order is "walk three miles, rest, lecture." This goes on till noon. They have three and one-half hours in which to cover two miles of ground, and they go hobbling and limping out into the country. In the afternoons from two to four they walk one mile and rest in the open. As they grow stronger they are moved into another group where there is a similar program, only now they accomplish three miles in the morning and two in the afternoon, and so on until they are able to begin drill and march in step to music. By the time they reach group two they run as well as walk and take field training. In group one at last they are working like soldiers once more, and the work is more emphatic and the training makes heavier demands on endurance. Presently the day will come when, their bodies mended and their strength renewed, they will march out of camp and down "the long, long trail again."

My Canadian friend and I occasionally walk into the town to do some necessary shopping. I wish I could do justice to a description of this old-world place. It is very dull indeed. Rugby lives for "the schools" and one sees groups of boys in gray trousers, black coats and striped caps wherever one looks, as well as the masters who stroll about town in caps and gown. The shops are old-fashioned, and most of the people dress according to the styles of several seasons back. There is an outdoor market in the centre of the town, and all streets lead to it. Nearby is a row of twelve almshouses which are provided for the aged and poor and which are very picturesque, being made of gray stone with quaint porches and latticed windows and are very old. One rarely sees any conveyance but pony-carts or bicycles—O yes! my enemy, the motor-cycle has pursued me even here! The confectioners—or must I do as the Romans do and say "sweet-shops"—are our greatest temptation, not that they are so seductive in themselves but forbidden pleasures are always so attractive. The school boys call them "tuck-shops." My friend was in a chemist's one day when a pale and suffering lad entered and asked the proprietor if he could give him anything "to cure a dreadful pain in the stomach, which would not cost more than a penny as that was all he had." His request was soon complied with and he departed. The chemist explained that the boy had only been over-eating at a tuck-shop, a very common occurrence

in Rugby. Their ignorance of Canada here is appalling. One lady, when she heard I was from that land of plenty, said, "How interesting! That is where people live in wooden houses which they build themselves, isn't it?" They still speak of "The Colonies" though Mr. Lloyd-George has decreed that we shall henceforth be the "Overseas Dominions." Canada will never have to take a back seat again after the way she has come to England's help, and the brave deeds of her gallant soldiers will never be forgotten. SIBYL.

Hope's Quiet Hour

Many Others.

The twelve were with Him. . . and many others, which ministered unto Him of their substance.—S. Luke 8:1-3.

"A flower upon my threshold laid;
A little kindness wrought unseen;
I know not who love's tribute paid,
I only know that it has made
Life's pathways smooth, life's borders
green"

The Master went throughout every city and village, telling the people the glad tidings of the kingdom of God. He was not alone in this great work. Close behind Him were the apostles—the princes of the new kingdom—and after them followed ministering women. We know the names of some of these grateful women, who gladly ministered of their substance to the Friend who had healed and helped them. We see there Mary Magdalene, Joanna, Susanna, and "many others" who are unknown to us but whose names are in the book of life.

Since that time a great multitude which no man can number—an ever-growing multitude of men and women—has joined the ranks of those who minister to Christ. We know the names of many of these, but many others have lived quiet, selfless lives, unnoticed and unpraised. How poor the world would be if it were not for the "many others"—the millions of "common people," of whom it has been said: "God must love them very much or He would not have made so many of them."

The world to-day is ringing with the praise of "Hoover of Belgium", the man who "for two years held dying Belgium in his arms." He was a mining engineer, with marvellous powers of organization, who saved millions of Belgians from starvation. But—how helpless he would have been if it had not been for many others who poured in their gifts of money from far and near. Many millions of dollars were desperately needed and many millions were gladly given. Only God knows where each dollar came from. Some people gave easily out of their abundance. Perhaps the opportunity of doing something to help made some of us feel comfortable. We understand Philip Gibbs saying: "I went away from the battlefield, back to the quiet harvest-fields. . . luckier than the men who had to stay, and ashamed of my luck." Do you—in these terrible days—ever feel ashamed of peace and comfort, of good meals and untroubled sleep? The chance to give to the "Advocate Dollar Chain" is a privilege, and I know we are all glad to help it along.

But God knows of many others who deny themselves in order to give to God through His needy children. Like the churches of Macedonia, in St. Paul's time, "the abundance of their joy and their deep poverty abounded unto the riches of their liberality. For to their power, I bear record, yea, and beyond their power they were willing of themselves."

Are you among the many who would like to give much, but are only able—by real self-denial—to give a little? Then remember the poor widow who gave more than all the rich people who cast their gold into the treasury of God. What does it matter whether your offering looks large or small? God knows whether it is really large or small, and if the gift is placed in His hands He can do great things with it. What an inspiration to the world that farthing, given by a poor widow, has been!—S. Mark 12:41-44.

If our eyes are upon the world, seeking admiration as payment for gifts of money or service, we are making a disastrous mistake. Our Lord has solemnly warned us that those who pretend to give to God; while they are really seeking the glory of men, "have their reward." They receive the respect and praise they are looking for, but that is all. What a disappointment we shall have, later on, if we imagine we have been laying up treasure in heaven and find ourselves bankrupt when we step through the door

of death. Cain brought an offering to God as well as Abel, but God would not accept Cain's offering. "Take heed that ye do not your alms before men, to be seen of them; otherwise ye have no reward of your Father which is in heaven." I read lately about a man who was always distressed when anyone praised him. He did not want to be paid by men—he was the servant of God and working to please his Divine Master.

So—after all—the "many others" who minister to Christ quietly and secretly have no need to look with longing at the great opportunities of distinguished service open to a few. A great privilege is theirs—to win the Master's "Well done!" Perhaps the praise of men might drown the still small voice, or make us forget that our business here is to please Him who has called us to His royal service. We may well echo that petition of the Moravian Church: "From the unhappy desire of being great, good Lord deliver us".

Elijah, on one occasion, was hopeless about the future of Israel. Why? Because he thought that no one loved God but himself. He could be sure of his own longings after God, but he could not see the hearts of his neighbors. So he really thought he was speaking the truth when he declared that the children of Israel had forsaken the covenant, and he said bitterly: "I, even I only, am left."

But God's loving tenderness was watching over many other faithful and loyal children in Israel. When Elijah could see only one—himself—God saw 7,000. Let us be careful lest we make the same mistake. Yesterday I was visiting a sick man in the hospital—a farmer, who has for years been a reader of the Advocate. He showed me his Scripture Union card, and told me that he was never too tired nor too busy to read his daily portion of Scripture. He is not the only one—there are many others. God knows them well—the humble souls who are quietly but earnestly "struggling Christward." The kingdom of God cometh not with observation—it is hidden from the observation of curious on-lookers—but "the eyes of the Lord run to and fro throughout the whole earth, to show Himself strong in the behalf of them whose heart is perfect toward Him."

We must be careful lest all our hopes and desires be centred on ourselves. Is it a red-letter day when something pleasant comes our way? Do we look only at our own troubles or our own gains—spiritual or physical?

I have been reading a new book by Vance Thompson, "Take it from Me". It is "a look in on the other fellow." The writer proves our dependence on other people. If we claim to be independent, working hard for daily bread, let us remember that we get our living from others. What we make or produce is paid for by other men—if it is worth buying. Even a poet writes to please or uplift other people. "Singing to oneself, like talking to oneself, is the first intimation of lunacy. . . Alone, you can get nothing you want, nothing you need, nothing—be it bread and butter and leather shoes or the white crown of spiritual service and spiritual conquest—you can get nothing alone."

The high ideals you rather pride yourself upon—where did you get them? Some were quietly and secretly breathed into you by mother, father, brother or sister. Some came to you from the Bible and other books, some came from a Christlike friend or neighbor, some—the best—came directly from the indwelling Spirit of God. Many others have made you what you are; and you, in your turn, should pass on to others your good things. There is an old story of a covetous man who had a life-giving stream of water running through his farm. He wanted to keep all the good things he could lay his hands on, so he dammed up the stream for his own use alone. No one else was allowed to have any of it. The sad consequence was that his farm became a swamp. When we try to hoard anything we ruin ourselves.

Vance Thompson declares that it is no one's duty to be a rich man and hoard up superfluous wealth for wife and children. He says: "You owe your sons no festering piles of hoarded wealth—on which they can stand higher than their fellows, arrogant and apart. What you owe them is not isolation, but a travel-worn path from your door to the door of the Other Fellow."

There are many others in the world



The British Advance.

Photo shows British troops entering Peronne, one of the important cities captured in the British drive. International Film Service.

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and they are all our neighbors—yes, even those who are our enemies at present. We are commanded to love our neighbors as we love ourselves. We are far from perfect ourselves, yet that fact fails to kill self-love in us. God loves me in spite of my ugly selfishness and foolish vanity—but He loves the other people too. What right have I to keep my distance, in cold dislike or careless indifference? If we refuse to love anyone who is not perfect we must suffer the misery of the unloving—and the unloved.

"Dark is the glass through which we see each other.

We may not judge a brother. We only see the rude and outer strife, God knows the hidden life. Where is our voice in condemnation raise, God may see fit to praise: And those from whom, like Pharisees, we shrink, With Christ may eat and drink."

DORA FARNCOMB.

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. Price fifteen cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, thirty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine", London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

See under illustrations for price of patterns shown in this week's issue.

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

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



9410 Sports Shirt, 36 to 44 bust. Price 10 cts.

9422 Four-Piece Skirt, 24 to 32 waist. Price 15 cts.

9449 Dress with Straight Skirt, 34 to 42 bust. Price 15 cts.



9454 Gown with Jacket Effect, 34 to 42 bust. Price 15 cts.

The Ingle Nook.

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

Canning Fruit and Vegetables.

The very thought of canning-time brings up a picture that is not altogether attractive—especially to the one who has to do the work. The picture is of a hot kitchen, an equally hot worker with flushed face and reddened hands, a steaming boiler, gem-jars by the dozens, and fruit piled nauseation-high. Oh yes, the very look of all those piles to be pared, and pitted and cored is enough to make one not want to see fruit for a year. But—just wait until next winter. It's a different story then.

Yet there is a way to avoid all this turmoil. Of course, if you prefer to do it that way, you can do the whole thing up in a mad rush of two or three weeks, and sometimes you have to do it that way, wash-boiler and all, to keep fruit from spoiling or for some other reason—but it is really simpler and easier to do just a few jars at a time, using a kettle of moderate size. If you get your tinsmith to make you a rack that will just fit (he can make it of heavy wire if he likes) the work will be simpler still. The rack should have stout handles if the frame is strong enough to permit.

By doing this—rhubarb and greens first, strawberries later, then cherries, peas, currants, small beets, beans, etc., running into corn, peaches, apples, grapes and pumpkins, you will have a fine selection of canned goods by the time winter comes, without having come through any big outburst of work and worry.

Directions for Canning.

Whether for fruits or vegetables the principle in canning is the same: There

Continued on page 1022.



9425 Child's Dress, 4, 6 and 8 years. Price 10 cts.



8946 Child's Dress, 1, 2, 4 and 6 yrs. Price 10 cts.

9077 House Gown, 24 or 36, 38 or 41, 42 or 44 bust. Price 15 cts.

Coarse Medium or Fine Grain

Absolutely Pure Cane Sugar

Guaranteed Full Weight

ST. LAWRENCE SUGAR

DIAMOND

You NEED for Preserves

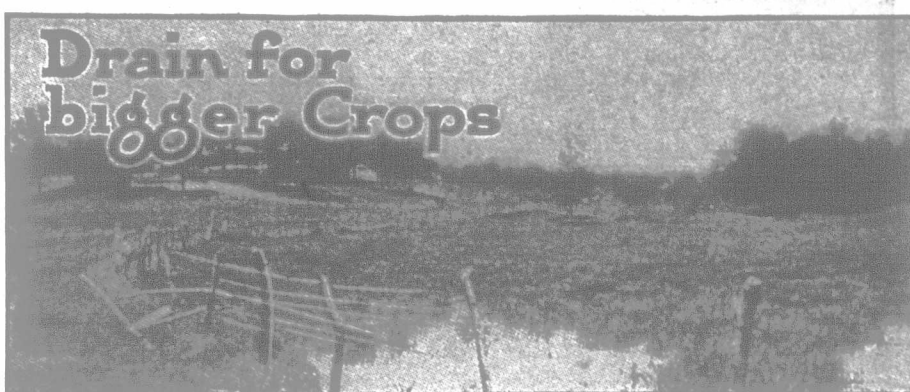
St. Lawrence Red Diamond Extra Granulated which owing to absolute freedom from organic impurities never causes those distressing failures which sometimes worry the best of cooks. Warranted pure cane sugar, the St. Lawrence Red Diamond Sugar does its full share to prevent fermentation.

Your dealer can supply Red Diamond Sugar in coarse grain, or medium, or fine as you may select.

Order the big bag—100 lbs. full weight of the best sugar made and avoid frequent trips to the store.

Sold also in many other sizes and styles of packages.

St. Lawrence Sugar Refineries Limited, Montreal.



Is there a low, wet place on your farm where water stands so that you can't cultivate it? You can easily and cheaply reclaim that land and turn it into as fertile a piece as any on your farm. Use vitrified pipes and under-drain it.

Special Offer! Sewer Pipe Seconds 5c. per foot

We have about 50,000 feet of vitrified sewer pipe on hand. It's good and reliable. It is not quite up to our high-grade standard, so we are making this special offer. You should not let that wet piece of land worry you any more. It's costing you money all the time. Put it to work to make money for you.

Take advantage of our offer while the piping lasts—that won't be long. Write to-day.

ONTARIO SEWER PIPE COMPANY, Mimico, Ontario

"Empire" Corrugated Iron

The original brand with a 30-year reputation behind it. Every sheet true and uniform and heavily galvanized. A post card will bring you particulars

Metallic Roofing Co., Limited, Manufacturers, Toronto

SHERLOCK-MANNING 20th Century Piano

is made in Canada—used in thousands of Canadian homes—and is generally acknowledged to be

"Canada's Biggest Piano Value"

Write Dept. 18 for free Catalogue "T"

THE SHERLOCK MANNING PIANO CO. London (No street address necessary) Canada

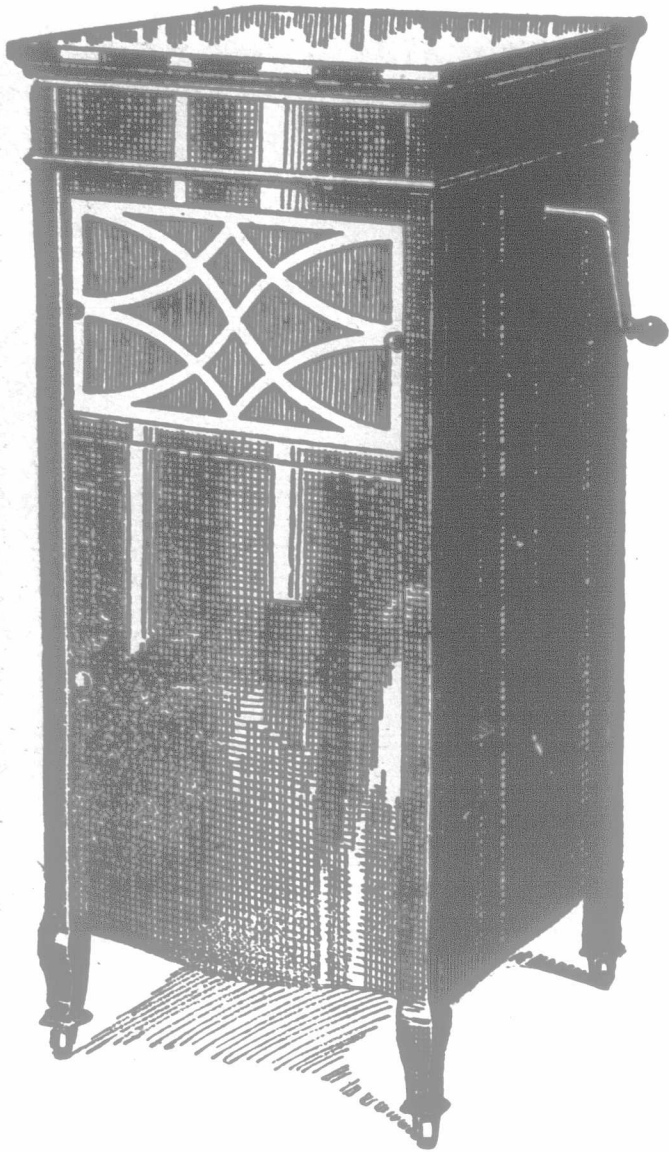


Its reproduction of vocal and instrumental music is clear, sweet and full. The Phonola plays any style and make of disc record. Priced from \$15 to \$250. Write to-day for free catalogue and name of local dealer. Agents wanted in unrepresented territory.

The Pollock Mfg. Co., Ltd., Kitchener, Ont.

Five Large Phonographs

Splendid Prizes in Breadmaking Contests at Rural School Fairs in Ontario



The Pathéphone

Five of these fine large phonographs, each with twelve records, given as first prizes in District Contests. Value, \$150. Size, 20' x 20½' x 44' high.

At the Rural School Fairs to be held all over Ontario this fall, one of the greatest events will be the breadmaking contests, conducted under the auspices of the Campbell Flour Mills Company. The girls of the whole province will watch this contest with keenest interest, for \$2,000 worth of splendid prizes are to be won by girls between the ages of 12 and 18 years who bake the best loaves of bread with Cream of the West Flour. In this announcement we tell all about the conditions of the contest. Read them carefully; also read the full descriptions of prizes on the opposite page. Then decide to enter this contest, for every baking day counts between now and fair time.

For the Grand Prizes we offer five splendid big phonographs like the one pictured here. Isn't it a beauty! It costs with records, no less than \$150, and remember, we are offering five of these machines. You will agree that such a splendid prize is well worth any girl's while to try for with enthusiasm.

Think of the fine times you could have with this lovely instrument, your friends coming over of an evening to listen to big bands, orchestras and fine singers. Or you can stir things up by putting on a funny record if you like. Certainly the winners of these large cabinet phonographs will be the envy of the whole province. Make up your mind you are going to win. All you have to do if you wish to try for the phonograph and the other splendid prizes described on the opposite page is to bake one loaf of bread, under the conditions explained below, with

Cream of the West Flour

the hard wheat flour guaranteed for bread

If you are going to use good flour for your bread-baking, why not have "the very best"—Cream of the West. We know by long experience that it does make big, bulging loaves of the wholesomest, whitest, lightest bread that will make you proud of your baking. If you could just see the enthusiastic letters of appreciation received by us from hundreds of people, who would not think of using any other flour but this, we would never need to hold these contests. We know that once you try it you will want to use our flour all the time. That is why it is worth our while to offer you these splendid prizes, just to get you acquainted with Cream of the West—the hard wheat flour that is guaranteed for bread.

Everyone can get Cream of the West Flour. If your grocer or dealer doesn't happen to have it, write to the Campbell Flour Mills Co., Ltd., Toronto, and you will promptly receive a letter telling you the nearest place to get it in your neighborhood.

Please note this: The winner of the Provincial prizes in last year's contest competed against the winners in half the province. There were two Provincial first prizes. This time your chances of winning the chief prize are very much enhanced, for you compete for the Pathéphone, etc., within a district comprising only a few counties. Five Pathéphones are now packed up in Toronto ready for the names and addresses of the fortunate winners. The Province will be divided into five districts, and particulars showing the names of the counties, etc., in each district will be published in a future advertisement.

Here is the plan: First of all you compete at your local Rural School Fair. From among the first prize winners at the local fairs, the winner of the Pathéphone is selected. The judging for the district prizes will be done by Miss M. A. Purdy of the Department of Flour Testing and Breadmaking at the Ontario Agricultural College, Guelph. You see we have the approval of the Ontario Government for this contest.

Isn't it well worth while to start right away to use Cream of the West Flour. Whether you win a prize or not your time is well spent;

nothing makes you a good breadmaker sooner than to enter a contest. That is why parents everywhere urge their daughters to enter this contest. Here is the list of prizes:—

Prizes at local Rural School Fairs—For the best loaf of bread baked with Cream of the West Flour the following handsome books are offered:—

- 1st Prize—Girl's Own Annual.
- 2nd Prize—Stories of Famous Men and Women.
- 3rd Prize—Britain Overseas.
- 4th Prize—The Queen's Gift Book.

Note.—Unless the entries number six or more only first and second prizes will be awarded. Unless the entries number ten or more no fourth prize will be awarded. Be sure to read full descriptions of these prizes in this paper.

The District Prizes—If you win first prize at your local fair you automatically become a competitor for the Pathéphone without any further work on your part. One-half of the first-prize loaf is sent to Guelph to compete against the other first prize winners in your district. Remember that you are competing not against the province but against only the winners in the district.

- 1st Prize—Large Cabinet Pathéphone with 12 records. Total value, \$150.00.
- 2nd Prize—Set of Dickens' Works, 18 volumes.
- 3rd, 4th and 5th Prizes—Canuck Bread-Mixers.

Note.—See full description of Prizes on opposite page.

CONDITIONS OF CONTEST.

Every girl may compete, whether or not she attends school, providing that her 12th birthday occurs before November 1st, 1917, or her 18th birthday does not occur before November 1st, 1917.

One loaf of bread, to be baked from Cream of the West Flour, must be properly entered at your local Rural School Fair, 1917, accompanied by the part of the Cream of the West Flour bag which shows the face of the Old Miller. A certificate or entry form must be signed by the girl competing and by a parent or guardian; this certificate will state the name, date of birth, post office address and name of dealer from whom Cream of the West Flour was purchased. The entry form will also declare that the loaf was baked only by the girl in whose name the loaf is entered in the contest. These forms will be available at the time of the local Rural School Fair.

The breadmaking contest for the local prizes will be part of the local fair program. It will be judged and prizes awarded the same as for the other regular contests at the fair. The decisions of the Judges will be final.

Not more than one entry may be made by each girl, and not more than one local prize awarded to the same family.

Each loaf must be baked in a pan about 7 x 5 inches and 3 inches deep, and divided into twin loaves so that they can be separated at the fair. One-half of the loaf will be cut at the School Fair and the judges will announce the winners there, and prizes be delivered as soon after as possible. The remaining half of the loaf winning first prize will be shipped

afterwards to the Ontario Agricultural College, Guelph, where it will be judged by Miss M. A. Purdy of the Department of Flour Testing and Breadmaking. Loaves shipped to Guelph will, of course, not be returned.

The Local Representative of the Department of Agriculture, who has charge of the Rural School Fairs in his district, will attend to the shipping to Guelph of each First Prize Loaf from each fair. A container will be furnished him for this purpose, and that is one reason why it is necessary to have the loaves of bread of nearly uniform size as possible.

The Standard upon which the loaves will be judged will be as follows:—

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

Remember these when baking your bread. Each girl should practise baking as often as possible between now and the date of your school fair, but, if possible, the loaf to be exhibited should be baked the day before the fair so that it will be fresh for shipment to Guelph if it win a place in the Provincial contest.

The results of the District Contests will be announced as soon as possible after the conclusion of the Rural School Fairs in the Province.

Campbell Flour Mills Co., Limited, (West) Toronto

Keep this announcement for reference.

SEE OPPOSITE PAGE

Descriptions of the Prizes In Bread-Making Contests

More than \$2000 in Pathe Phonographs,
Attractive Books and Bread Mixers!



First District Prize.

The Pathephone we have chosen for the District Prizes is one of the best phonographs in the world and sells in Canada for \$135. Together with the twelve records that go with it, the total value amounts up to \$150. What a prize! How we wish we could exhibit this beautiful instrument in every neighborhood. Were it possible, there would surely be an avalanche of entries everywhere.

Of course there are other good phonographs that command a large sum of money. We chose the Pathephone for its magnificent reproduction of music in tone so true, so full, round and natural as to create the feeling that you are listening, not to a machine, but to the living voice. Here is a wonderful phonograph; so perfect is its sound production that, if you did not see the instrument, it would be very hard to distinguish its music from the original human voice.

The Pathephone will play any flat disc record. Special needles are provided which permit of the best results being obtained. And what a fine-looking machine it is! Just look at the design. The wood is rich mahogany, highly polished and beautifully finished—designed to go in harmony with the costliest furnished homes in the land. Inside are compartments for keeping the records.

Second District Prize— Set of Dickens' Works.

Why is it that people who know Dickens' books will tell you they read his entrancing stories not only once, but several times? Who can read about Oliver Twist's or Little Nell's extremely interesting adventures without being moved in the very depths of feeling? Few figures are more intensely funny than Mr. Pickwick and Sam Weller. They get more so every

time you read about them. The "Tale of Two Cities" is so gripping in its vivid descriptions of adventures and peril during the French Revolution, that you just want to read the whole book at one time. Everybody reads Dickens. It is indeed part of one's education, not to be neglected. And this set includes no less than eighteen beautiful volumes cloth-bound in blue with gold titles, good paper and clear type. The books are all profusely illustrated.

Third, Fourth and Fifth District Prizes— Canuck Bread Mixer.

Women who use the bread mixer say it makes bread-making one of the easiest tasks of all in the home. A little child can easily turn the handle, and this little operation you will agree is very much easier than handling many pounds of dough several times and kneading it. How simple just to put in the ingredients and let a child turn the handle for three minutes! That is all the "hard" work you do when you have a Canuck Bread Mixer. Besides, it saves washing up many utensils, it saves flour, it makes the bread rise more evenly and it is the cleanest method known. In short, the Canuck Bread Mixer helps you make better bread with a fraction of labor—surely a splendid prize worth trying for.

First Local Prize— The Girl's Own Annual.

Here is a great, big fascinating book just teeming with the things that girls love. Were you to sit down and write out a list of the stories and studies and informative articles you like best it would doubtless read just like the index in the back of this book, for long before you were born, the editors were studying the literature wants of girls, and the "Girl's Own Annual" has been a favorite all the years. And now, in these gripping war times it is more interesting than ever. Whatever your age, you will treasure

it. When you grow to womanhood you will continue to turn to it. Its appeal is to all, and it will take you a long time to read the last interesting story and articles, for there are nearly 800 pages of stories, special articles about the world's famous people, descriptions of women's work in the war, travel, all sorts of curious facts, stories and information about books, art, curiosities, flowers, gardening, birds, animals—all the things that you like to read about. The stories of romance, love and helpfulness to others are particularly fine. Besides, there are instructive departments dealing with crocheting, sewing, fashions and home problems. There are dozens of illustrations. Make up your mind now to win this book.

Second Local Prize— Stories of Famous Men and Women.

You have heard of the world famous Jenny Lind, the sweet singer to whom Queen Victoria threw a bouquet—of Flora MacDonald, the brave Scotch lassie who risked her own life to save "Bonnie Prince Charlie" when a price was put upon his head for leading a rebellion in Great Britain, one hundred and sixty-two years ago—of Grace Darling and Florence Nightingale, the heroines of history who won undying fame for their sacrifices on behalf of the suffering—and the beloved Queen Victoria. This book tells all about their romantic careers in the most engaging language. And these are but a few of the many famous women and men told about in this lovely book. It is a large volume with many colored pictures and drawings, 320 pages, heavily cloth bound with gold titles.

Third Local Prize— Britain Overseas.

Isn't the building up of Britain's vast world-wide Empire suggestive of an abundance of interesting historic lore? This book tells all about the Empire upon which the sun never sets, about its heroes who won it for Britain, their battles, their peaceful conquests and the strange peoples of which outlying parts of the Empire are composed. It tells about their countries, and their curious customs, their homes and how they found contentment and prosperity under the beneficent rule of Britain. Nowadays this great Empire is under strain and test. You want to know all about it. This splendid book is beautifully illustrated with pictures in many colors, is heavily cloth bound.

Fourth Local Prize— The Queen's Gift Book.

Our good Queen Mary has founded a haven in England for the brave soldiers who have been disabled, a place where they rest and recover from their wounds, and are fitted to face the torture again. This book was designed to help the good work. Great Britain's most famous writers were glad to contribute their stories to it, also many of her great artists, whose splendid paintings and drawings are shown in all the original colors. There are stories by James Barrie, Hall Caine, Arthur Conan Doyle, Jerome K. Jerome, Gilbert Parker, Ernest Thompson Seton, Mrs. Humphrey Ward and others. It will make for you a splendid souvenir of the war. It is beautifully bound in blue, has 158 pages, and besides the pictures in many colors, is profusely illustrated with dozens of drawings.

No Competitions in Counties Named Below.

The competition is open to all parts of the Province where Rural School Fairs are held, except the districts of Rainy River, Kenora and Thunder Bay. These three districts are the only parts of the Province where school fairs are held under the auspices of the Department of Agriculture, in which this competition will not be a feature. There are no district representatives of the Department of Agriculture in the Counties of Huron, Perth, Wellington, Haliburton, Prescott, Russell or Lincoln, and no rural school fairs are held in these Counties under the supervision of the Department of Agriculture. We regret, therefore, that the competition cannot include these Counties.

Decide Now.

If you are of the proper age, decide now. Every bread-making day counts. Start now to practise with Cream of the West Flour, the splendid hard wheat flour that makes such splendid bread. Parents should encourage every girl to enter who can, thus stimulating interest in good bread-making. Get a supply of Cream of the West Flour from your dealer and know all about its superior qualities. Every baking between now and your rural school fair day may teach something that will help you win the Pathe Phonograph or one of the other splendid prizes. Decide now—Practise.

Watch for our next announcement which will give the districts into which the Province has been divided and the counties each district contains. Send in the coupon below for name of the nearest dealer who sells Cream of the West Flour.

See opposite page for conditions, etc.



THE GUARANTEED FLOUR
"Each loaf must be accompanied by part of bag which shows the face of the Old Miller."

CUT OUT AND MAIL THIS COUPON:

CAMPBELL FLOUR MILLS CO., LTD.
Please send me name and address of nearest dealer who sells Cream of the West Flour, as our regular dealer does not handle it.
Our dealer's name is.....
His Address.....
My name is.....
Address..... P.O.....

The Campbell Flour Mills Co., Ltd.
(West) Toronto, Ontario

(SEE OPPOSITE PAGE)

Keep this announcement for reference.



**A Light, Fluffy Cake?
It Depends Upon Your Sugar**

In making cake, watch your sugar closely—sugar which is lumpy and does not readily dissolve is hard to cream with the shortening. The grainy texture is difficult to "beat out."

Dominion Crystal Sugar

is very finely granulated, dissolves readily, and quickly releases its refined sweetness. Brown sugar makes a moist cake, powdered sugar a dry cake, granulated sugar the cake of the finest texture. Dominion Crystal Granulated is the just right cake.

For a boiled icing, employ Dominion Crystal Icing Sugar and apply it while the cake is still warm.

the only sugar that may rightly be called "Canadian from the ground up."

We do import the finest of raw cane sugar and refine it. But our pride is in the product we make from Canadian sugar beets—its use is dictated by good judgment as well as patriotism.

For a boiled icing, employ Dominion Crystal Icing Sugar and apply it while the cake is still warm.

Dominion Sugar Co., Limited
Wallaceburg Chatham Kitchener

Dominion Crystal Sugar is



A Toronto Pumping Engine Ensures an Unfailing Water Supply

The man who has one of these wonderful little 1½ H.P. TORONTO Engines doesn't have to waste any time or do any worrying about his water supply. Simple, sturdy, always on the job, it's ready to start with a turn and pump away as long as you like without any fussing or bother. Connect it with the TORONTO Pump best suited to your conditions, with a TORONTO Pressure or Overhead Tank and Water Bowls, and you have an ideal water system. Write for Booklet and full information.



Better Ensilage at less Cost with



The TORONTO Economy Silo

The comparatively low cost of wood staves—the quickness and ease of erection—and the extra capacity afforded by the new HIP-ROOF—make the TORONTO Economy Silo less expensive per ton of silage than any other standard type. Being absolutely air-tight, even to the doors, and having no tendency to draw the frost, it makes better ensilage than silos costing far more. Write for Booklet explaining its advantages.

Ontario Wind Engine and Pump Co. Limited
Dept. "F"
TORONTO and MONTREAL.

Shorthorn Sale

The Shorthorn herd belonging to the estate of A. McKillop will be sold at auction. This is a splendid chance for anyone wishing high-bred stock. There are about 30 head and some excellent milkers and all regular breeders.

Sale will take place at Argyle Farm, 3 miles north of West Lorne, on the Pere Marquette and Michigan Central Railways, at 1 p.m., on

Tuesday, July 3rd, 1917

A. & J. A. MCKILLOP, Trustees

must be perfect sterilization of jars and contents, and the sealing must be so tight that no germ or yeast spore can enter from the outside to set up fermentation or putrefaction. When these precautions are carried out to the letter it is simply impossible for the contents to spoil, even though they have not had a grain of salt or sugar added to them. A further necessity, chiefly for the preservation of the color of the contents, is to keep the jars in a cool, dark place.

Briefly outlined the different steps in the process are as follows:

1. Remove skins if necessary. For plums, tomatoes, etc., this may be done by covering with scalding water for a few minutes, then draining and covering for a moment with cold water. Now remove skins, with all blemished spots, blossom ends, stones, etc.
2. Pack into jars as tightly as possible. Wide-mouthed jars are best, and those with tops that clamp down are better than the ones that must be screwed.
3. Fill up with clear water, salty water or syrup, as required by whatever is to be canned.
4. Put on rubbers and tops, leaving tops loose so that jars will not be broken by the steam.
5. Put jars in a rack in the kettle or boiler with warm water in it reaching almost to top of jars. Cover kettle or boiler and boil the required length of time.
6. Remove the jars and tighten covers, then turn upside-down until cool, then store away.
7. In the case of nearly all vegetables it will be necessary to boil on three days in succession. Each time loosen the covers, then tighten down when boiling is completed. The last time, if necessary, fill the jars to overflowing from one jar kept for the purpose, before tightening the covers down for the last time.

Of course, there are variations on this way of canning. Some people prefer to stew the fruit in a kettle, then fill sterilized jars to overflowing. This answers very well, too, but the process of overflowing the jars is rather messy.

When canning young beets and carrots a little vinegar and sugar, also some whole pickle spice, may be added to each jar if liked.

The following table showing time of cooking may be of use, the term "stewing" being used to indicate time of boiling before putting into the cans to be boiled in the boiler:

- Asparagus.—Stewed 5 minutes; boiled in jars 1 hour.
- Greens of all kinds.—St. 10 to 15 min.; in jars 1½ hrs.
- Green Peas and Beans.—St. 10 mins.; jars, 2 hours.
- Corn.—St. 15 mins.; jars, 3 hours (repeat for 1 hour on two following days). Corn may be blanched on cob, and the kernels cut off to put in jars.
- Beets and Carrots.—St. 7 mins.; jars, 1½ hrs.
- Tomatoes.—St. 5 mins.; in jars, 20 mins.
- Rhubarb.—St. 5 mins.; in jars, 20 mins.
- Squash.—St. 5 mins.; in jars 1 hour. (Repeat on 2 successive days).

The following fruits need no stewing, and may be cooked in boiler in jars for about 35 minutes: strawberries, raspberries, blackberries, sweet cherries, blueberries, grapes, damson plums.

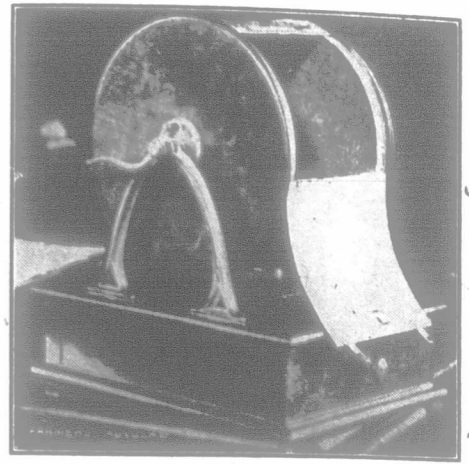
The following fruits may be stewed about 5 minutes, then boiled in jars about half an hour: currants, gooseberries, sour cherries, cranberries, peaches, pineapple, apples, quinces. Melon and citron need 10 to 15 minutes blanching.

A little of the acidity of rhubarb, cherries and sour plums may be removed by covering with boiling water which is poured off after 5 minutes. Or they may even be boiled for a few minutes and the juice drained off. Less sugar will be required in this way. If strong enough the removed juice may be made into a fruit syrup to be used as pudding sauce, or in making sherbet or cool summer drinks.

While we are on the subject of fruit-juice it may be an opportune to say that some strawberries should be crushed, stewed and the juice canned or made into a syrup to be used with apples for making jelly. Strawberries do not jelly themselves but combine splendidly with apples in this way.

It should be remembered that, to ensure successful canning, the rubbers should be of good quality and new each season.

A little vinegar and stick cinnamon may be added to the syrup used for pears,



"Jury Wheel" in the U. S.

This is the type of Jury wheel into which the names of all those registered in the military census are placed. The wheel is revolved and then a certain number of names withdrawn to determine those to be called to the colors. The cut shows the wheel open ready to receive the names.—International Film Service.

peaches, watermelon rind, citron and cantaloupe.

Peas and Beans.

The following recipe, which appeared last year, has been especially asked for: Select young, tender peas or beans, and pack into sealers. Set the sealers on a rack (in boiler) covered with a cloth. Pour cold or lukewarm water about and let cook until the water boils. Now fill jars with boiling water to which salt has been added, a teaspoon to a quart. Adjust rubbers and covers, but do not fasten them. Cover the boiler and cook 1 hour, then tighten covers and let cool in the kettle, covered. The beans need a little longer cooking.

Some Extra Hints.

Remember that all fruit and vegetables for canning should be of good quality, the fruit just ripe—never over-ripe. All fruits are better picked when dry, but should be washed, then drained thoroughly to remove dust and insecticide, if any has been used.

Pears, peaches, apples and all fruits that discolor after being peeled should be thrown into cold water as fast as the skin is removed to prevent the discoloration. If a little vinegar or lemon juice has been added to the water so much the better. Plums should be pricked in several places before canning to prevent them from bursting. Rhubarb has two periods of growth, the first in the spring, the second after midsummer, when it may be canned again, absolutely without sugar (as all fruits may be), with sugar enough to sweeten, or just in cold water, in sterilized jars. Gooseberries also may be canned in this way. The process is as follows: Cut the rhubarb in small pieces, and top and tail the gooseberries. Pack into the sterilized jars, then fill to overflowing with cold water by plunging in a deep dish of it (the dish must have been thoroughly sterilized). Put on the tops under water, when it is seen that the water has penetrated every crevice of the jars.

The two methods given below for Oven-cooked and Sun-cooked fruit, have been taken from The Circle:

Oven-Canned Fruit.

Pack the prepared fruit carefully in the jars, taking pains to arrange it attractively. Make a syrup, regulating the amount of sugar to suit the requirements of the fruit, and allowing for large fruit a pint of the syrup to each quart can of fruit. Small fruits that pack solidly will require but little over a cup of the syrup. Fill the hot jars with the syrup—remember that each jar is taken from the hot, sterilizing water to be filled—and set the glass cover on top of the jar without screwing tightly. Place in the oven, setting in a dripping-pan holding about two inches of water, or on a strip of asbestos. The oven should be moderately hot. Cook the fruit ten or fifteen minutes, dependent again upon the fruit, then lift from the oven, one can at a time, fill to overflowing with the scalding syrup, and seal at once.

Sun-Cooked Preserves.

Sun-cooked preserves are among the most delicious of all preserved fruits, though not so generally known among Americans. The sun brings out all the fresh individual flavor of the fruit, particularly strawberries, currants, cherries, blackberries, loganberries, Tokay grapes, and figs. Peaches, pears and plums have

not juice according will retain pound of seeding, a even less fruits. S have a mu than curra the fruit a ting the c or cutting as the ca preserve ready hot have the ing care no a thin lay tom of the and lastly morning This is d kettle and minutes, end of thi until it ju out the fr broad pla covering y the sun d fruit to a full benefi thick. P with circ brandy, retains its it is reall

One can serve with than the s for pourin much eas expensive enamelled edge of wooden basket fo peeled, pl of cheese Tin shou enamelled used, and the tin di taste.

In the been take in a way of sugar u unsealed, cover all lades, wh prevent preserves sugar to a the fruit pound of for from l to a pint

Points to

A Cana not repre portation dition, pr comfort modern ra with up-ding ser word, ev vide for of its pas A Cha Homes Canada a each Tu clusive. Pacific A Passenger

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not juice enough in themselves. Cooked according to the following rule, the fruits will retain their native flavor. To every pound of fruit measured before pitting or seeding, allow a scant pound of sugar or even less in the case of particularly sweet fruits. Strawberries, for instance, should have a much scantier proportion of sugar than currants or sour cherries. Prepare the fruit at night, hulling the berries, pitting the cherries, stemming the currants, or cutting out the two seeds of the Tokays, as the case may be, and taking care to preserve every particle of the juice. Have ready hot platters or deep plates, and have the sugar heated in the oven, taking care not to let it melt or color. Spread a thin layer of the hot sugar over the bottom of the dish, then a layer of the fruit, and lastly another layer of sugar. By morning a thick syrup will have formed. This is drained off into the preserving-kettle and allowed to cook slowly for ten minutes, skimming if necessary. At the end of this time, put in the fruit, and cook until it just comes to a boil. Now skim out the fruit, spread fruit and syrup on broad platters, and set in the hot sun, covering with panes of window-glass. As the sun disappears in one place, move the fruit to another where it can have the full benefit of the sun's rays until rich and thick. Put in jelly-glasses, and cover with circles of writing-paper wet with brandy. Put up in this way, the fruit retains its natural color and flavor, while it is really very little trouble to do.

Accessories.

One can can (this isn't a pun) and preserve with very little paraphernalia other than the sealers, boiler and a cup or dipper for pouring, but the work will be made much easier by the purchase of a few inexpensive accessories. These are: An enamelled colander, stout wooden or enamelled spoons with clip to fasten on edge of kettle, an enamelled funnel, a wooden potato masher, a strong wire basket for dipping fruit which is to be peeled, plenty of thick, clean holders made of cheesecloth, and an enamelled ladle. Tin should never be used for fruit; only enamelled or earthen vessels should be used, and wooden or enamelled spoons; the tin discolors and gives an unpleasant taste.

Quantities.

In the above no account whatever has been taken of preserving fruit, which is, in a way, simpler, as the large quantity of sugar used keeps the fruit, even though unsealed. It is, however, advisable to cover all preserves, jellies and marmalades, when cold, with melted paraffin, to prevent moulds. The usual rule for preserves and marmalade is a pound of sugar to a pound of fruit, although when the fruit is sweet, three quarters of a pound of sugar is sufficient. Jellies call for from half a pound to a pound of sugar to a pint of juice, depending on the fruit.

Points to Consider When Purchasing a Railway Ticket.

A Canadian Pacific Railway ticket does not represent merely a means of transportation between given points. It, in addition, provides the traveller with every comfort and convenience developed by modern railway science. "Safety First," with up-to-date equipment, unexcelled dining service, palatial sleeping cars, in a word, everything that a railway can provide for the comfortable transportation of its passengers, including courtesy.

A Chance for Those Going West.

Homeseekers' Excursions to Western Canada at low fares via Canadian Pacific each Tuesday until October 30th, inclusive. Particulars from any Canadian Pacific Agent, or W. B. Howard, District Passenger Agent, Toronto, Ont.—Adv't.

Attractive Dining Car Service.

Probably nothing helps more to make a railway journey really enjoyable than a visit to the "Dining Car," especially if it be a Canadian Pacific Dining Car, where the passenger is assured of the highest form of efficiency in the culinary art, the choicest provisions that the market affords prepared on the scientific principle known as "Dietetic Blending."

Your favorite dish, as you like it, may be enjoyed at reasonable cost, amidst ideal surroundings, while travelling on the Canadian Pacific.

Your Chance—The West is Calling.

Homeseekers' Excursions to Western Canada at low fares via Canadian Pacific each Tuesday until October 30th, inclusive. Particulars from any Canadian Pacific Agent, or W. B. Howard, District Passenger Agent, Toronto, Ont.—Adv't.

The Canada Paint Company, Limited
MAKERS OF THE
Famous Elephant Brand White Lead

This Free Book is Invaluable to Every Householder

If you intend to paint your house or barn, to varnish or enamel your furniture, to finish your floors, to decorate your walls, to paint your boat, automobile, buggy, wagons, farm implements, concrete, stucco or brick work—you need this book.

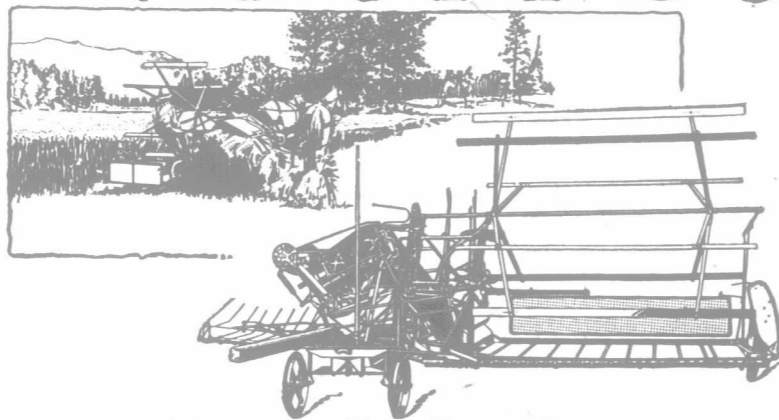
There are a thousand and one things in and about the house that can be rejuvenated, beautified and improved in appearance. This book tells you when and how to do it to get the best results economically.

It gives many practical hints to help make your home more artistic, cheery and inviting. It saves you from costly mistakes.

Send for your copy of free book today.

The Canada Paint Co., Limited,
570 William Street, Montreal.

"Sun Darnish Stain" makes old floors like new.



The Twine Binder Situation

THERE is every reason to believe that this will be a good year for the farmer who has grain to sell. The world's stock is low. The crops so far reported are not large enough to make up the shortage and furnish a year's supply besides. No matter how large a crop North America may raise the indications all favor good prices.

Therefore, it is important to be ready for the harvest with binders and twine that will save the whole crop, no matter what the harvest conditions may be. Good, reliable McCormick machines and twine are the kind to buy this year.

Buy early. This applies to repairs as well as to binders and twine. You can get all three now. It may be difficult to get them later. On repairs and twine, especially, our advice to every farmer is to buy at once all he is going to need, and not alone to buy but to go to the dealer, get the full amount of twine and all the repairs necessary, and take them home.

The local dealer has done all he can to insure the harvesting of your grain. He will appreciate having your order as early as possible, so that he can give service to your neighbors who delay. Help him out.

International Harvester Company of Canada, Limited

BRANCH HOUSES

WEST—Brandon, Man., Calgary, Alta., Edmonton, Alta., Estevan, Sask., Lethbridge, Alta., N. Battleford, Sask., Regina, Sask., Saskatoon, Sask., Winnipeg, Man., Yorkton, Sask.
EAST—Hamilton, Ont., London, Ont., Montreal, Que., Ottawa, Ont., Quebec, Que., St. John, N. B.



DO YOU WANT TO SAVE ONE-QUARTER ON THE COST OF A SET OF STEEL WHEELS?

If so, send at once for our Illustrated Circular, Price List and Order Blank. Our Prices will advance in one week's time. Our wheels are made to fit any axle or skein. We quote price FREIGHT PREPAID TO YOUR NEAREST STATION. A set of "COOKE" wheels will give your old wagon a new lease of life! The cost is small! Chart showing how to take required measurements sent free. Write to-day.

THE COOKE METAL WHEEL CO., 19 West Street, Orillia, Ontario



SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Supplying Coal for the Dominion Buildings," will be received at this office until 4.00 P.M., on Tuesday, July 3, 1917, for the supply of coal for the Public Buildings throughout the Dominion.

Combined specification and form of tender can be obtained on application, at this office and from the caretakers of the different Dominion Buildings.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied, and signed with their actual signatures.

Each tender must be accompanied by an accepted cheque on a chartered bank, payable to the order of the Honourable the Minister of Public Works, equal to ten per cent. (10 p.c.) of the amount of the tender, which will be forfeited if the person tendering decline to enter into a contract when called upon to do so or fail to complete the contract. If the tender be not accepted, the cheque will be returned.

By order,
R. C. DESROCHERS,
Secretary.

Department of Public Works,
Ottawa, June 9, 1917.

Newspapers will not be paid for this advertisement if they insert it without authority from the Department.



MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa, until Noon, on Friday, the 27th day of July, 1917, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Longwood No. 2 Rural Route, from the 1st of October, next.

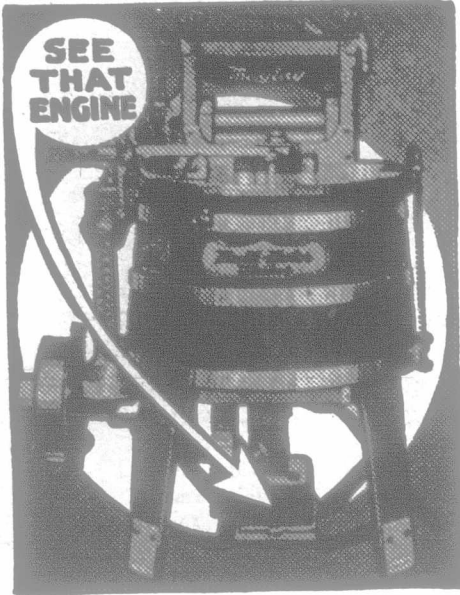
Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Offices of Longwood, Melbourne and Appin, and at the office of the Post Office Inspector, London.

C. C. ANDERSON,
Superintendent

Post Office Department, Canada, Mail Service Branch, Ottawa, 15th June, 1917.

MAKE YOUR OWN
Lager Beer in your own home with
HOP MALT EXTRACT
Made only of pure hops and malt. Makes real beer with the good old flavor that is appetizing and health building. Conforms to Temperance Act.
Small Tins \$1.00; Large \$1.50
Prepaid. Full directions with each tin. Agents W.anted.
DEPT. A
Hop Malt Co., Beamsville, Ont.

"MAYTAG"
MULTI-MOTOR WASHER



It is positively the only washer of its kind on the market. The half-horsepower engine operates on gas, gasoline, kerosene or alcohol—about five cents worth does the wash.

This washer will not injure the daintiest linens, or the most delicate laces—and it will handle heavier blankets—doing the work twice as well and in less than half the time required by the old-fashioned washer or back-breaking, knuckle-skinning wash-board and tub.

- We also have in stock
- "Maytag" Electric**
- "Maytag" Power and**
- "Maytag" Hand Washers**
- ALSO THE
- "Maytag" One H.-P. Engine**

Each machine warranted FOR THREE YEARS.

Ask your dealer, or write for information to:

WHITES LIMITED
COLLINGWOOD, ONTARIO

Sole distributors for the Provinces of Ontario, Quebec, Nova Scotia, New Brunswick and Prince Edward Island.



THRESHERMEN---READ THIS!
The Improved Veteran Endless Canvas Drive Belts will give you better service than any other. You want the best. Order now.
Sold only by
WINDSOR SUPPLY CO.
57 Sandwich Street West, Windsor, Ont.
Headquarters for Suction Hose and all other Thresher Supplies. Write for catalogue, "Engineer's Bargains."

Binder Twine

Write us for quotations.
CANADA GROCERY CO.
Front St. W. Toronto, Ont.

The Dollar Chain

Contributions from June 8th to June 15th: D. C. F., R. 1, Melbourne, Ont., \$10; Cecil Stamp, London, Ont., \$1; Maggie Thomson, R. 2, Mildmay, Ont., \$10; "Toronto" ("Hope"), \$2; R. H. Morton, Tyrone, Ont., 50 cents; Mrs. Thos. H. Wright, R. 2, Ravenna, \$1; Jas. R. Watson, Hawkesbury, Ont., \$2;

For Byron Hospital for Tubercular Soldiers: Mrs. Geo. A. Godfrey, North Wiltshire, P. E. I., \$1; Dorothy and St. Clair, \$1; Mrs. F. M., R. 7, Peterboro, \$1; L. H. K., Eden, Ont., \$1; Mrs. Wm. H. Ellis, R. 2, Fenelon Falls, Ont., \$2; Mrs. G. S., R. 2, Hawkesbury, \$1; "Country Chick," R. 2, Guelph, Ont., 50 cents; Mrs. E. McCallum, Kingston, Ont., 25 cents; Maggie Thomson, R. 2, Mildmay, \$5; Mrs. Edw. Taylor, R. 1, Mansfield, Ont., \$2; S. W. St. James, La Tortue, Que., \$1; Mrs. Jas. Oke, Centralia, Ont., \$1; Ada and Fanny Matthews, Putnam, Ont., \$1. The total now received for Byron Hospital is \$479.85, leaving \$20.15 still to be gathered for the equipment of the Farmer's Advocate and Home Magazine Readers' Ward. Knowing that this is sure to be made up at an early date we took the liberty, last week, of sending a cheque in full for the \$500. Below will be found the letter in receipt of this amount from the Executive of the Red Cross, who have in hand the equipping of the hospital.

Amount previously acknowledged for Dollar Chain.....\$4,673.65

Total to June 15th.....\$4,717.90

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

Our Byron Hospital Ward.

London, Ont., June 12, 1917.
The William Weld Co., Limited,
London, Ont.

Dear Sirs:—
The Executive of the London Red Cross Society desire to extend to the Editors of "The Farmer's Advocate" and its readers their sincere thanks and warm appreciation of their splendid donation to the Byron Military Hospital. It has been a great pleasure to raise the money for this worthy object, not alone because the object itself is one that must appeal to every one's heart, but also the delightful readiness with which the people of Western Ontario have responded to this call.

We enclose formal receipt, and again thanking you, we remain
Yours very truly,
JANE KENNEDY,
Per M. J. H.,
Hon. Corr.-Sec'y.

Write J. A. Watt for Catalogue

Any one desiring a catalogue of the Watt-Gardhouse Shorthorn sale at Elora, on June 28, should write to J. A. Watt, Elora, Ont. The advertisement and notes intimate that either Mr. Watt or Mr. Gardhouse will forward them, but to expedite matters it has been decided that Mr. Watt will distribute the catalogue, so correspondence should be addressed to him.

THE FARMER'S SEEDS FIFTY YEARS SERVICE

1866 1916

The supply of good seed is very limited. Order promptly and avoid being disappointed.

ALFALFA	Bus.
Montana Crown No. 1	\$15.00
Ont. Variegated No. 2 (almost No. 1)	\$23.00 to \$25.00
Lyman's Grimm	80c. lb.
MILLET	
Hungarian Millet	\$4.00
Siberian Millet	3.25
German or Golden Millet	3.00
Common Millet	2.75
Buckwheat	2.15
Jap. Barnyard Millet	7c. lb.
Rape (Dwarf Essex)	13c. lb.
Amber Sugar Cane	8c. lb.
Hairy Vetch	18c. lb.
Thousand Headed Kale	25c. lb.
GARDEN CORN—Stowells' Evergreen	\$9.00 bus., 25c. lb.; Early White Corn, \$0.00 bus., 25c. lb.

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

23 Shorthorns at Auction

Seventeen Females Six Young Bulls

Carefully selected from the herds of Adam A. Armstrong and Matthew Wilson, both of Fergus, Ont. With one exception the females are all young cows and heifers, and are made up of some of the very best Scotch-topped families. Excepting those that have calves at foot, nearly every female offered will be showing safe in calf at sale time.

The young bulls are one hundred per cent. good ones, bulls that will be winners at the coming shows, and, like the females, their breeding too is all that can be desired. Come and see them sold at

MONKLAND FARM, FERGUS, ONTARIO, on Tuesday, July 3rd, 1917

At the same time there will also be sold 25 Young Yorkshire Sows, all of Monkland breeding and all near farrowing. Write for catalogue now, mentioning this paper, to

MATTHEW WILSON ADAM A. ARMSTRONG
FERGUS, ONTARIO
Monkland Farm is only 300 yards from C.P.R. and G.T.R. stations.
CAPT. T. ROBSON, Auctioneer.

CLEARING AUCTION SALE OF STOCK

for C. F. JACKSON, on the Middlemarch Farm, two miles west of St. Thomas, on

Wed., June 27th, 1917

In the sale are 12 PURE-BRED SHORTHORN COWS, 10 PURE-BRED HOLSTEIN CATTLE, 40 GOOD HORSES from 3 to 5 years old, 20 GRADE COWS, new milkers, 50 YOUNG CATTLE, a full line of implements used on a 300-acre farm.

Sale commences at 12.30.

C. F. Jackson, Proprietor
Locke & McLachlin, Auctioneers.

Remember when you were a Kiddie?

How you did enjoy your supper out of doors, on the porch, lawn, or down in the woods! Didn't you always eat more? The ELITE FOLDING TABLE makes more of these picnic treats possible.

So light—only 11 lbs.—and folds so compactly you can carry it anywhere without fatigue. Set up in a minute and never a wobble. Your furniture dealer has it or will get it for you. Ask him.

MADE IN CANADA
Write for FREE booklet "G", describing our "Peerless" and "Elite" Tables. **HOUD & CO., LTD.** Sole Licensees and Mfrs. LONDON, ONTARIO.

Rose-Comb Rhode Island Reds
Eggs for hatching, \$1.25 per fifteen. Good winter layers and good color.
Alex. McKinney, R.R. 1, Erin, Ontario.

POULTRY AND EGGS

RINGLET BARRED ROCKS—PUREBRED. trap-nested, heavy winter layers, beauty and utility combined; setting \$1.50; 100% fertility guaranteed. Book order now. Particulars, F. Coldham, Barriefield, Kingston, Ont.

SPECIAL LATE-SEASON SALE OF BREEDING STOCK in White Leghorns, Brahmans, Indian Runners, Bourbon Red Turkeys. Two choice litters of Fox Terrier puppies. John Annesser, Tilbury, Ont.

Want and For Sale

AGENTS WANTED—EITHER GENTLEMAN or lady, returned soldier preferred, to handle one of the best selling articles on the market to-day. Big profits, enormous demand. Write to-day for full particulars. May Manufacturing Co., Elora, Ontario.

COLLIE PUPS—A FINE LITTER OF pedigreed Scotch Collie pups. Order early—get first choice. L. D. Wilson, Aurora.

FOR SALE—ONE OF THE CHOICEST FARMS in the county of Simcoe. One hundred and eighty acres, clay loam, all under cultivation, two acres of orchard, good water supply, good buildings, solid brick house, rural phone, and mail delivery, one mile from Bradford, thirty-six miles from Toronto on macadamized road. Price sixteen thousand dollars. Apply Box 277, Barrie, Ontario.

WANTED—A GOOD, STEADY, RELIABLE man, not afraid of work, with experience in Babcock testing and some knowledge of dairy machinery, as assistant in our milk bottling plant. Give experience and salary wanted. Elmhurst Dairy, Montreal West.

PARIS GREEN

The season for potato bugs is here. ARE YOU PREPARED?

We have been fortunate in securing a limited supply of Paris Green. Get your order in now, while it lasts.

We are still in a position to handle butter and eggs. Get our prices and give us a trial shipment. We pay express charges and furnish crates on application. There are still a few tons of high-grade Cotton Seed Meal offering.

Give us a trial order for groceries, buggies, wagons, implements, oats and mill feeds. Prices given on application.

United Farmers' Co-Operative Co., Limited
Cor. King and Francis Sts., Toronto

McCULLOUGH & MUIR
256 Dundas Street, TORONTO, ONT.

Hay and Straw

Get top prices for baled hay. We are always open to buy any grade.

Get Your Name on Our Mailing List!

Write to-day for prices! We send out a special weekly letter each Saturday, giving a report on market conditions, prices and prospects for the coming week. Let us send you this valuable information without charge.

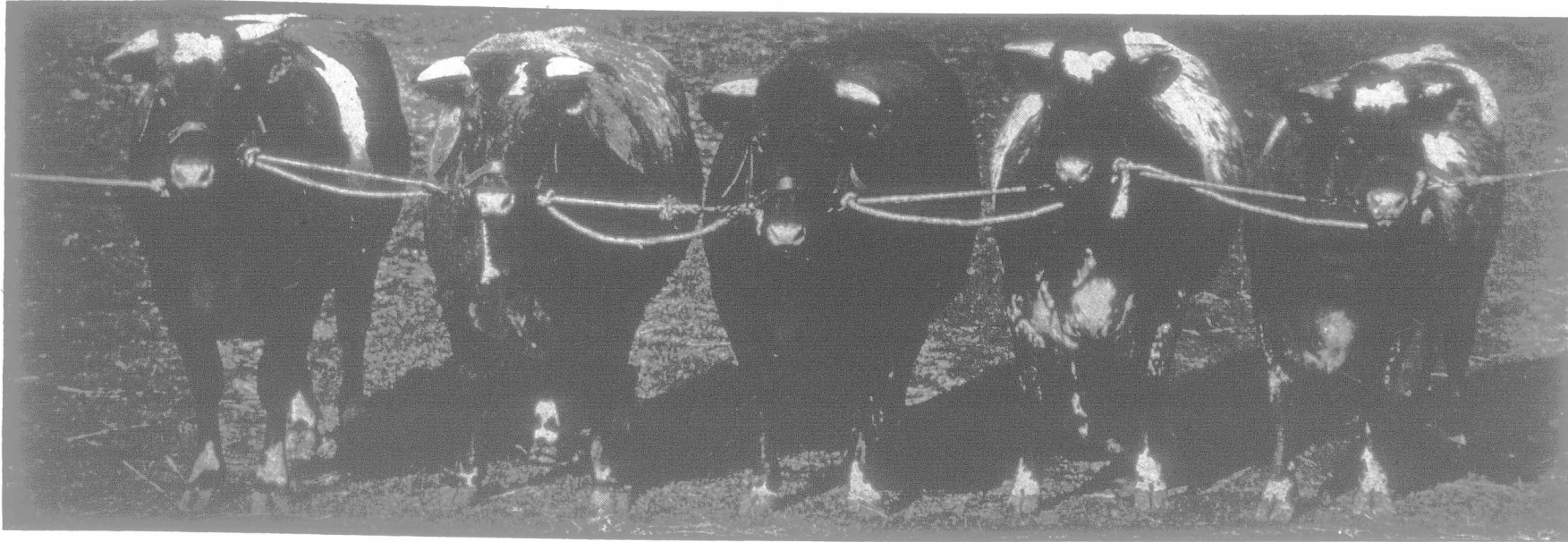
Deal with a firm of standing. Reference: The Bank of Toronto.

Last

Canada. T. Fiv. AUCTIONEER

"1900"
Sent free Write for "1900" 357 YONGE (Factory, 75

PAT FETHERSTON
Solicitors. T. Office, Royal Bank Street, Ottawa, for free booklet.



HEIFERS INCLUDED IN J. M. GARDHOUSE and J. A. WATT'S SALE.

Last Call! 2nd Annual Sale SCOTCH SHORTHORNS

at Salem Stock Farm, Elora, Ont., June 28, 1917

The best lot ever offered by them at auction. Includes an array of cows that, as high-class breeding propositions, probably were never equalled in a sale-ring in Canada. There are three first-prize Toronto heifers, and many others that look like winners.

Five young bulls that challenge comparison, one of them imported. They are sired by some of the greatest bulls of the breed.

AUCTIONEERS: CAREY M. JONES THEO. MARTIN CAPT. T. E. ROBSON "SCOTTY" MILNE

For catalogue write J. A. WATT, Elora, Ont.

MITCHELL BROTHERS' SHORTHORN DISPERSION SALE

June 29th, 1917

at Escana Farm, Burlington, Ontario

FORTY HEAD SHOW AND BREEDING MATERIAL

TWO GREAT IMPORTED HERD SIRES SELL

The famous **Right Sort (Imp.)**, a Bruce Mayflower.

10 head, the get of Right Sort, won 14 prizes at Toronto in 1914

12 head, the get of Right Sort, won 18 prizes at Toronto in 1915

9 head, the get of Right Sort, won 13 prizes at Toronto in 1916

Right Sort (imp.) is fresh and active, a grand individual, and one of the greatest sires ever imported from Great Britain.

Newton Grand Champion (imp.), the type that sires the champions. He is one of the highest-priced bulls imported in recent years, and by a great sire, and his dam is a wonderful producer; she is the dam of Clairmont and Clairvoyant, both first-prize bulls at the Aberdeen show and sale.

Pride of Escana and **Escana Masterpiece** are two remarkable good show bull calves by Right Sort (imp.). They both have valuable dams that are exceptional for breed character, quality and breeding.

Greengill Star, a Cruickshank Orange Blossom, by Raphael (imp.), is of identically the same breeding as Escana Masterpiece, and is a very smooth, stylish yearling, ready for service at the head of a good herd.

THE FEMALES

include several cows and heifers selected from the Escana herd at high prices and have produced first-prize winners and champions at Toronto Exhibition. Also in the sale are 12 choice, imported cows and heifers added to the herd last fall, they are by leading sires in Scotland and several have imported-in-dam calves at foot, and are re-bred to Right Sort or Newton Grand Champion.

Here is a combination of breeding material that cannot be purchased only in a dispersion sale. A strong protection a purchaser has in this sale is that not a single doubtful female of breeding age is offered, as they either have calves at foot or are safe in calf. They belong to the most noted and fashionable blood lines, such as Marr Clara, Maud, Missie, Roan Lady, Bessie, Lady Laura, Broadhooks, Eliza, Jilt, Kilblean Beauty, Mysie, Orange Blossom, Mayflower, Isabella and Secret.

The catalogues are of interest—they are free. Write for one to-day.

J. A. Watt and J. M. Gardhouse sell 60 head at Elora, June 28. Parties attending this sale can make good train connection to Hamilton or Burlington same evening.

AUCTIONEERS: Col. Carey M. Jones
Col. Theo Martin
Capt. T. E. Robson

Mitchell Brothers, Burlington, Ont.

"1900" Gravity Washer

Sent free for one month's trial. Write for particulars.

"1900" WASHER COMPANY
357 YONGE ST., TORONTO, ONT.
(Factory, 79-81 Portland St., Toronto)

DO YOU NEED FURNITURE

Write for our large, photo-illustrated Catalogue No. 7—it's free to you.

THE ADAMS FURNITURE CO., Limited
Toronto, Ontario

BABCOCK & SONS

ESTAB. 1877. Formerly Patent Office Examiner. Master of Patent Laws. Book, full information, free. 99 St. James St., Montreal. Branches at Ottawa and Washington.

THE VETERINARIAN

A valuable book which tells you about the treatment of diseases of your live stock, given FREE with a trial ton order of

LINSEED OIL CAKE

"Maple Leaf" Brand

Write to-day for lowest prices.

The Canada Linseed Oil Mills, Limited
—Toronto and Montreal—

PATENTS Trade Marks and Designs

procured in all countries. Special attention given to Patent Litigation. Pamphlet sent free on application.

RIDOUT & MAYBEE Crown Life Bldg. TORONTO, ONT.

Don't Fritter Your Labor

away in digging post holes. Use Standard Steel Tube Fence Posts. Write for prices.

Standard Steel Tube and Fence Co. Limited
Woodstock, Ontario

Mertoun Shorthorns for Sale—Stock bull

Prince Albert =92603=; sire Roan Chief (Imp.) =60865=. He has proved a good sire, is quiet, sure and active. His heifers coming of breeding age, reason for selling. James Hill, R.R. No. 1, Staffa P.O., Ontario.

PATENTS AND LEGAL FETHERSTONHAUGH & CO., PATENTS. Solicitors. The Old Established Firm. Head Office, Royal Bank Building, Toronto, and 5 Elgin Street, Ottawa, and other principal cities. Send for free booklet.

The Merchants Bank of Canada

Proceedings at the Fifty-fourth Annual Meeting of Shareholders on June 6th, 1917

The fifty-fourth Annual Meeting of the Shareholders of the Merchants Bank of Canada was held Wednesday, June 6th, in the Board Room at the head offices of the Bank at Montreal. The meeting was called to order at twelve o'clock noon.

Among those in attendance were Messrs. K. W. Blackwell, Thomas Long, Andrew A. Allan, A. J. Dawes, F. Howard Wilson, Farquhar Robertson, Geo. L. Cains, Alfred B. Evans, E. F. Hebdon, Lt.-Col. James R. Moodie, D. C. Macarow, Arthur Browning, Vivian Harcourt, John Baillie, A. Piddington, Edward Fiske, T. E. Merrett, A. B. Patterson, R. S. White, A. D. Fraser, John Patterson, Dr. A. McDiarmid, Frederick Hague, C. E. Sprague, R. Shaw, D. Kinghorn, J. D. G. Kippen, W. J. Finucan, W. B. Harshaw, R. H. Arkell, J. G. Muir, H. B. Loucks, W. A. Meldrum and J. M. Kilbourn.

On the motion of Mr. John Patterson, the vice-president, Mr. K. W. Blackwell, in the absence of the President (Sir H. Montagu Allan), was asked to take the chair. Mr. J. M. Kilbourn was appointed secretary of the meeting.

The minutes of the last annual meeting were taken as read. The Chairman, Mr. K. W. Blackwell, then presented the Annual Report as follows:

THE ANNUAL REPORT.

I have pleasure in submitting for your approval the Fifty-fourth Annual Statement of the Merchants Bank of Canada as at the close of business on the evening of April 30th, 1917, the last day of the Bank's fiscal year. I also beg to submit a statement of the Profits covering the same period.

You will observe that the profits on this occasion are larger by \$169,595.42. Our important expansion in deposits (about twenty millions) has enabled us to very substantially increase our commercial and industrial advances to the material improvement of our earning power, and, at the same time, to keep properly strong. A study of the Balance Sheet will, I am sure, satisfy you in the latter respect.

During the past year we have opened Branches at:—Almonte, Pembroke, New Toronto, Niagara Falls, Collingwood, Barry's Bay, Manitowaning, Ont.; Grand Mere, Notre Dame St., Lachine; Notre Dame de Grace, Que.; Sydney, C.B.; Forestburg, Nobleford, Monarch, Irma, Chipman, Alta.; Prussia, Prelate, Meacham, Sask.; and sub-offices at Mount Pleasant, Mimico, Breslau, Douglas, Ont.; Millicent, Penhold, Huxley, Galahad, Grainger, Alta.; Senlac, Sask.

We have closed the following offices, as unremunerative: Battleford, Sask.; Lorraine (sub). Alta.

All the various offices have been inspected during the past twelve months. The usual Auditor's Certificate is appended.

All of which is respectfully submitted.

K. W. BLACKWELL,
Vice-President.

The Financial Statement

Statement of the Result of the Business of the Bank for the Year ended 30th April, 1917.

The Net Profits of the year, after payment of charges, rebate on discounts, interest on deposits, and making full provision for bad and doubtful debts, have amounted to.....	\$1,120,308.84
The balance brought forward from 29th April, 1916, was.....	250,984.12
Making a total of.....	\$1,371,292.96

This has been disposed of as follows:

Dividend No. 116, at the rate of 10 per cent. per annum.....	\$175,000.00
Dividend No. 117, at the rate of 10 per cent. per annum.....	175,000.00
Dividend No. 118, at the rate of 10 per cent. per annum.....	175,000.00
Dividend No. 119, at the rate of 10 per cent. per annum.....	175,000.00
Donations to Canadian Patriotic and Red Cross Funds.....	700,000.00
Government War Tax on Note Circulation.....	70,000.00
Written off Bank Premises account.....	100,000.00
Contribution to Officers' Pension Fund.....	50,000.00
Balance carried forward.....	421,292.96
Total.....	\$1,371,292.96

K. W. BLACKWELL, E. F. HEBDEN, D. C. MACAROW,
Vice-President. Managing Director. General Manager.

STATEMENT OF LIABILITIES AND ASSETS AT 30th APRIL, 1917

LIABILITIES.		1917	1916
1—To the Shareholders.			
Capital Stock paid in.....	\$ 7,000,000.00	\$ 7,000,000.00	
Rest of Reserve Fund.....	7,000,000.00	7,000,000.00	
Dividends declared and unpaid.....	178,365.00	175,542.50	
Balance of Profits as per Profit and Loss Account submitted herewith.....	421,292.96	250,984.12	
	\$14,599,657.96	\$14,426,526.62	
2—To the Public.			
Notes of the Bank in Circulation.....	9,483,468.00	7,486,906.00	
Deposits not bearing Interest.....	27,101,587.86	17,181,959.18	
Deposits bearing interest (including interest accrued to date of statement).....	65,000,484.42	54,995,069.97	
Balances due to other Banks in Canada.....	628,863.08	363,799.39	
Balances due to Banks and Banking Correspondents in the United Kingdom and foreign countries.....	3,904,690.72	877,399.91	
Bills payable.....			
Acceptances under Letters of Credit.....	411,806.78	1,029,702.00	
Liabilities not included in the foregoing.....			
	\$121,130,558.82	\$96,361,363.07	

ASSETS

Current Coin.....	\$ 4,766,438.82	\$ 3,681,854.13
Deposit in the Central Gold Reserves.....	3,500,000.00	1,000,000.00
Dominion Notes.....	7,650,790.50	8,106,240.25
Notes of other Banks.....	793,367.00	702,006.00
Cheques on other Banks.....	5,674,828.67	2,754,968.88
Balances due by other Banks in Canada.....	2,635.33	2,836.92
Balances due by Banks and Banking Correspondents in the United Kingdom.....	61,225.79	207,226.65
Balances due by Banks and Banking Correspondents elsewhere than in Canada, and the United Kingdom.....	2,413,100.00	3,892,026.83
Dominion and Provincial Government securities not exceeding market value.....	3,862,507.19	2,480,446.72
Railway and other Bonds, Debentures and Stocks, not exceeding market value.....	3,964,251.24	5,055,106.27
Canadian Municipal securities and British, Foreign and Colonial public securities, other than Canadian.....	11,263,196.20	5,251,321.38
Call Loans in Canada on Bonds, Debentures and Stocks.....	4,627,863.57	5,175,048.49
Call Loans elsewhere than in Canada.....	3,461,420.47	2,651,404.32
	\$ 52,041,624.88	\$40,960,486.84
Current Loans and Discounts in Canada (less Rebate of Interest).....	62,737,958.74	48,835,565.38
Current Loans and Discounts elsewhere than in Canada (less Rebate of Interest).....	377,582.42	203,125.72
Liabilities of customers under Letters of Credit as per contra.....	411,806.78	1,029,702.00
Real Estate other than Bank Premises.....	294,197.07	177,186.29
Overdue debts, estimated loss provided for.....	149,039.68	164,363.18
Bank Premises, at not more than cost, less amounts written off.....	4,617,400.23	4,507,782.34
Deposit with the Minister for the purposes of the Circulation Fund.....	375,000.00	345,000.00
Other Assets not included in the foregoing.....	125,949.02	138,151.32
	\$121,130,558.82	\$96,361,363.07

K. W. BLACKWELL, E. F. HEBDEN, D. C. MACAROW,
Vice-President. Managing Director. General Manager.

Report of the Auditor to the Shareholders of the Merchants Bank of Canada.

In accordance with the provisions of Sub-Section 19 and 20 of Section 56 of the Bank Act, I report to the Shareholders as follows:—

I have examined the above Balance Sheet with the Books of Account and other records of the Bank at the Chief Office and with the signed returns from the Branches and Agencies.

I have checked the cash and verified the securities of the Bank at the Chief Office against the entries in regard thereto in the books of the Bank as on 30th April, 1917, and at a different time during the year and found them to agree with such entries. I have also attended at some of the Branches during the year and checked the cash and verified the securities held at the dates of my attendances, and found them to agree with the entries in the books of the Bank with regard thereto.

I have obtained all the information and explanations I have required. In my opinion, the transactions of the Bank which have come under my notice have been within the powers of the Bank, and the above Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Bank's affairs according to the best of my information and the explanations given to me, and as shown by the books of the Bank.

VIVIAN HARCOURT,
(of Deloitte, Plender, Griffiths & Co.)
Auditor.

Montreal, 21st May, 1917.

The Chairman moved the adoption of the report, seconded by Mr. Thomas Long, and it was unanimously adopted. The Chairman then reviewed the Bank's position and the general business situation, making reference to the loss the Board had sustained in the death of their late co-director, Mr. Alexander Barnet, and mentioning that Lt.-Col. James R. Moodie would be proposed for election to a place upon the Directorate.

The Managing Director (Mr. E. F. Hebdon) then reviewed the business of the year and the industrial situation, pointing out the necessity for keeping the bank's position liquid. Mr. Hebdon pointed out that the Chartered Banks of Canada were the bulwark and stay of Canada's industrial life, yet even the Banks required a breathing spell at times, and that the prevailing high cost of material and labor might, unless a policy of moderation were generally adopted by borrowers, bring about a situation which would bid fair to become strained.

The General Manager confined his remarks to the staff and said:

"There is one hidden yet dominant factor to which it is perhaps pertinent and proper I should make some special reference. I refer to that all-important portion of your assets, the Staff.

"It will be a matter of interest to you—and of pride, I have no doubt—to know that from a total of 874 male members of the Staff of military age at the beginning of the war, 520, or 59 per cent., have enlisted for Active Service and are now overseas. (Great applause.) Of these, be it said, with feelings of the deepest and most reverent sorrow, 28, or one in every 19, will never return. Some 60 have been wounded, and by many, high honors have been won for valorous deeds in the field. To these gallant young men, actuated by the highest of patriotic motives, every possible tribute of praise, admiration and gratitude is extended. But we must not forget their fellows, who, out of necessity, have remained behind, and who have been

compelled, in the circumstances, to assume extra duties and heavier responsibilities. These additional burdens, I gratefully testify, have been cheerfully shouldered, and thus have they been doing, unostentatiously but effectively, their important share towards keeping 'the home fires burning' against the great tomorrow, when Canada will be rejoicing at the victorious return of her gallant sons from the Front. Let us hope the dawn of that momentous day may be in the not distant future." (Applause.)

Mr. Patterson expressed the appreciation of the stockholders for the efforts of the staff, and had no doubt recognition of a tangible nature was being given by the management.

On the motion of Messrs. John Patterson and Alfred Piddington, Messrs. Vivian Harcourt and Gordon Tansley, of Deloitte, Plender, Griffiths and Co., were appointed auditors of the Bank, to hold office until the next annual general meeting.

On the motion of Messrs. A. D. Fraser and John Baillie, Messrs. John Patterson and F. Hague were appointed scrutineers for the election of directors.

It was then moved by Mr. John Patterson, seconded by Dr. Alfred McDiarmid, that the scrutineers should cast one ballot in favor of the following persons as directors: Sir H. Montagu Allan and Messrs. K. W. Blackwell, Thomas Long, F. Orrell-Lewis, Andrew A. Allan, Lieut.-Col. C. C. Ballantyne, A. J. Dawes, F. Howard Wilson, Farquhar Robertson, Geo. L. Cains, Alfred B. Evans, E. F. Hebdon, T. Ancart and Lt.-Col. Jas. R. Moodie. This motion was carried unanimously, and the scrutineers declared these gentlemen to be elected as Directors.

This concluded the business of the meeting, which then adjourned. At a subsequent special meeting of the Directors, Sir H. Montagu Allan was re-elected President, Mr. K. W. Blackwell Vice-President.

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Gossip.

Attractive Shorthorn Sale.

Look up the advertisement of the sale of thirty head of Shorthorn cattle, belonging to the estate of the late A. McKillop, to be held at the farm, near West Lorne, July 3. Write A. & J. A. McKillop, for full particulars.

The Watt-Gardhouse Sale.

Shorthorn admirers all over Canada and the United States will be interested in the Shorthorn sale at Salem Stock Farm, Elora, Ontario, on Thursday, June 28. This is the home of Gainford Marquis, that great bull which has few peers as a show animal or sire. The offering comprises 45 choice cows and heifers, 20 calves and 5 bulls. The best Scotch families are represented with show stock of both sexes. Some of the young things are by Gainford Marquis and a number of the females are in-calf to him. This will be one of the greatest sales of the season in Canada or the United States. Procure a catalogue at once from J. A. Watt, Elora, Ontario, or J. M. Gardhouse, Weston, Ont.

Merchants Bank Progress.

To have added twenty million dollars, or nearly 27 per cent., to its deposits in a single year, and to have increased its note circulation by two millions, or about the same percentage, and this on top of an unbroken succession of increases, steady if not so spectacular, throughout the war, is an achievement of which any bank in Canada may well feel proud. This is the record exhibited in the remarkable statement presented at the annual meeting of the Merchants Bank of Canada, whose total assets have now reached the imposing figure of \$121,130,556. This bank, under the guidance of General Manager D. C. Macarow, had a very successful year during the twelve months ended April 30, 1917. Not only did it expand its volume of business by a little less than 25 million dollars, but it also showed earnings on a much better scale than in any previous war year, amounting to \$1,120,308.84, thus allowing for the writing off of \$100,000 from premises account and the addition of \$170,000 approximately to the profit balance, after paying the customary 10 per cent. dividend (requiring \$700,000), the war tax, several generous donations and the annual contribution to the Pension Fund.

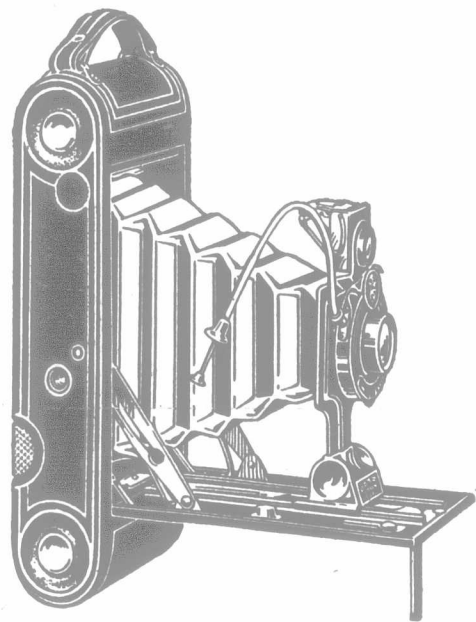
The total increase in the bank's liabilities to the public during the year was not far under 25 million dollars, and they now total about \$106,530,000. Against these are assets to the sum of \$121,130,558, of which the cash liquid items together represent \$52,041,624, or about 48.9 per cent. of the liabilities, while cash alone (current coin and Dominion notes, in vaults or in the Central Gold Reserve) is equivalent to 15 per cent. of liabilities.

This Lover.

He used to sigh a little song
When thinking of Mignon,
"Oh me, oh me, what frugal cheer
My love doth feed upon."
His song divulged the bliss it was
To dream her breath was near,
To worship at her footprint, and
To trace her shadow dear.
He used to sigh a little song,
When thinking of Mignon—
"Oh me, oh me, what frugal cheer
My love doth feed upon."

And now he sings: "What frugal cheer
My love doth feed ME on!
A salad that she calls 'just dear':
A chop I call a bone:
A thimbleful of jello clear;
Some cheese—obtained by phone—
Is all I ever see round here,
When we two dine alone."
This lover now is moved to sigh,
When thinking of Mignon,
"Oh me, oh me, what frugal cheer
My love doth feed upon."
JULIA M. MARVIN.

M A D E I N C A N A D A



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Autographic
Kodak Jr.**

Price \$11.00

Size of pictures — 2½ by 4¼ inches

There is a strictly business side to

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The autographic feature making it possible to memo each negative at the instant of exposure offers a golden opportunity for graphic, authentic records of crops, live stock, etc., that any farmer will readily appreciate.

The Kodak pictured above, the No. 1A Autographic Kodak Junior, provides ideal means for a farm record of this kind. It is very easy to operate and is of such compact, thin construction that the pocket takes it with space to spare. The picture proportions are pleasing and provide ample space for concise autographic memoranda. The shutter is Kodak Ball Bearing with cable release and has speeds of 1/15, 1/25 and 1/50 of a second as well as time and bulb action. It is fitted with carefully tested meniscus achromatic lens and is supplied as either a fixed focus or focusing model as desired.

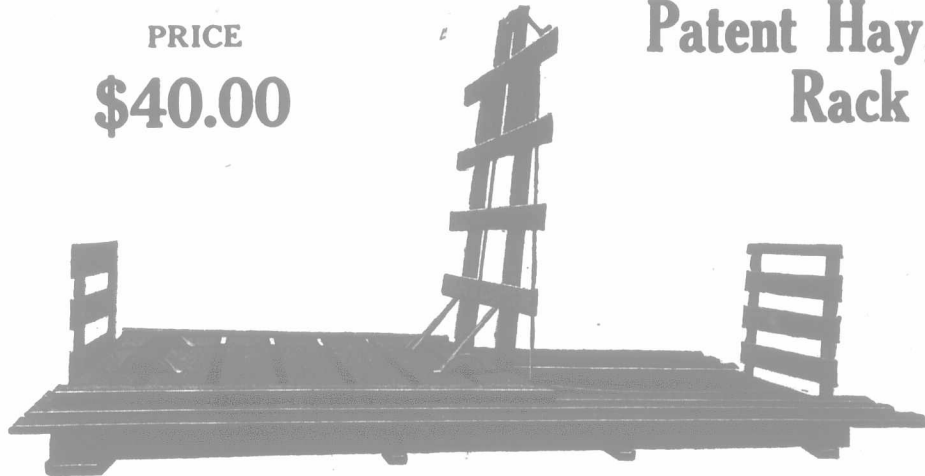
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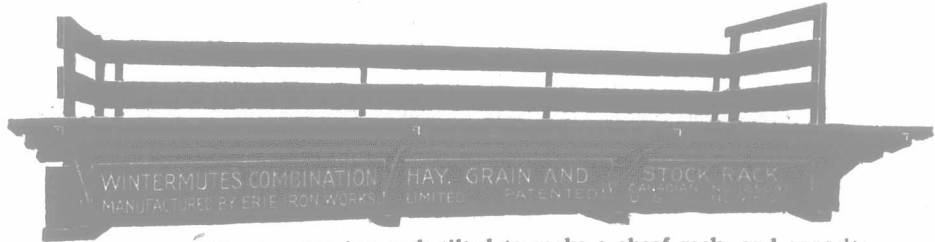
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Shows complete one-man hay-loading outfit.



Shows one side of wagon-box rack tilted to make a sheaf rack, and opposite side and ends set up for a stock rack.

One-man outfit during haying-time! Grasp what that means with the present scarcity of help and high wages!

Ten good features and reasons why every farmer should buy this rack:

1. Farmers' wagon box.
2. Farmers' flat rack.
3. Farmers' sheaf tilt side rack.
4. Farmers' stock rack.
5. Farmers' combination one-man hay-loading rack.
6. All changes made without loosening a nut or taking out a bolt.
7. The material used is the highest grade that can be bought, and weight is added where strength is required.
8. The rack is well painted and finished.
9. The price is within a reasonable figure, and because of the many uses it can be put to, will earn the money paid for it in less than one season.
10. It is made in Canada by Canadian workmen.

Write to

The Erie Iron Works, Limited
St. Thomas, Ontario

for full particulars. Price is \$40.00 for the complete outfit for a 14-foot rack. Be sure and get this money-saving proposition.

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All infringements will be prosecuted.

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Grown in open, therefore hardy. Early Jersey Wakefield, Early Copenhagen, 1,000, \$1.25—less than 20 cents per 100. Orders booked also for winter cabbage plants, as Danish Bullhead Danish Roundhead, Succession, 1,000, \$1.00—less than 15 cents per 100. Winter cabbage plants to be shipped after June 1.

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**Artificial limbs are admitted
DUTY FREE. SOLDIERS
and others should get the best**

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A Guaranteed Remedy for every Common Ailment
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COMBAULT'S
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A Safe, Speedy, and Positive Cure
 The safest, Best BLISTER ever used. Takes 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 \$1.50 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.

\$1.
for a Horse
 Save a horse and you won't have to buy one. Don't sell or destroy any horse on account of Spavin, Splint, Ringbone, Curb, Sprains or Lameness. Spend one dollar for a bottle.
KENDALL'S SPAVIN CURE
 It has saved a great many horses—has put them back to work, even after they have been given up. Over 35 years of success have proved its value.
 Melicar Crivea, Marengo, Sask., wrote last February—"I have used your Spavin Cure for many years and thus far have never known it to fail." Get Kendall's Spavin Cure at any druggist's. Price \$1. a bottle, 6 bottles for \$5. "A Treatise on the Horse's" free at druggists or from Dr. B. J. Kendall Co., Enosburg Falls, N. Y., U.S.A.

Bog Spavin
 Cure the lameness and remove the bugh without scarring the horse—the part looking just as it did before the blemish came.
FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid blemish—Bog Spavin, Bone-splint, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.
 Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.
FLEMING BROS., Chemists
 Church Street, Toronto, Ont.

DR. PAGE'S ENGLISH SPAVIN CURE
 Cures the lameness from Bone-Spaving, Side-Bones, Ringbones, Curbs, Splints, etc., and absorbs the bunches; does not kill the hair, a b s o r b s Capped Hocks, Bog-spavins, thick pastern joints; cures lameness in tendons, most powerful absorbent known; guaranteed, or money refunded. Mailed to any address. Price \$1.00 Canadian Agents: J. A. JOHNSTON & CO., DRUGGISTS, 171 King St. East, Toronto, Ont.

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 for Reinforcing Bridges and Barn Driveways
CUT ANY LENGTH
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A PAYING INVESTMENT
 Store your corn in a BISSELL SILO and it will keep sweet and sappy. BISSELL SILOS are built of seasoned timber saturated with Wood Preservative Oils. They are durable, heavy-hooped structures, with air-tight walls and tight doors. In several sizes with or without roofs. Write Dept W for free catalogue. 97 T. E. Bissell Co., Ltd., Elora, Ont.

Gossip.
 Pure-breds and Grades for Sale at Middlemarch.

On June 27, C. F. Jackson, of Middlemarch, Elgin County, is offering 90 head of cattle, 40 horses, and implements used on a 300-acre farm, for sale by public auction. This will be a splendid opportunity to secure fresh milk cows and young cattle. There are 12 pure-bred Shorthorn cows and 10 pure-bred Holsteins in the offering, besides 20 grade cows, many of which are fresh. The horses range from three to five years in age. The farm is only a couple of miles out of St. Thomas and the sale commences at 12.30 sharp. Don't forget that June 27 is the day of the sale. For further particulars consult the advertisement which appeared in our June 14 issue, or write Mr. Jackson.

Mitchell Bros. Sale June 29th.

Following the few notes which appeared in these columns last week regarding the two famous herd sires which are selling at the head of the great Escana Farm herd of Shorthorns at Burlington, Ont., on the 29th of this month, a little information regarding the females in the herd is sure to be appreciated by a large number of our readers. These are made up of many of the breed's most noted females, with such strains as Missies, Jilts, Broadhooks, Rosebuds, Mysies, Kilblean Beautys, Marr Missies and Marr Bessies predominating, and, as intimated in our former notes, include many champion winners—as well as ten great imported cows with calves at foot, eight of which are to British service. Among these are cows whose individuality and breeding have never been excelled in any importations to Canada. The few mentioned are representative of the entire lot. Newton Rose, a choice, red Rosebud cow, bred by Gordon, sells with an imported heifer calf at foot by Newton Count, which sold at the Gordon dispersal for 550 guineas. A choice yearling heifer, a half-sister to Newton Rose, is also in the herd, and safe in calf to Newton Grand Champion. Maud 55th (imp.), also has a heifer calf by Newton Count, catalogued with its dam, which is a straight Marr-Maud bred at Uppermill. Wartle Mysie (imp.), a grand, good Mysie, is of Duthie breeding, and also has a heifer calf at foot got by Rare Sort. Lady Laura 41st (imp.) has a junior heifer which will be one of the best things that will be seen at the shows this year. Broadhooks 11th, dam of the great young sire, Escana Champion, and Novelty (imp.), dam of the junior champion bull at Toronto 1916, are two great imported cows of a previous importation, and are sure to be followed closely on sale day. Each sells with a Right Sort bull calf at foot, and both are again re-bred to Newton Grand Champion. Speaking of the Canadian-bred cows, the same choice breed character as is evidenced in the imported animals, carries throughout. Red Missie, a show cow and one of the tops of the Watt sale last year, has a January Gainford Marquis heifer at foot and safe again in calf to Right Sort; Favorite Missie by Royal Favorite, a Toronto grand champion winner, also has a bull calf by her side, and she too is safely bred since November to Right Sort. Lady Jilt, a choice, thick matron by Lord Roseberry (imp.), is also due in August to Right Sort. It is not often that such a uniformly good lot of breeding cows as these are found in one herd, and certainly not often that they come into a public sale ring. There are a number of Right Sort heifers carrying their first and second calves, including Escana Missie, the great show senior yearling, bred since March to Newton Grand Champion, a service which should make her one of the most attractive Shorthorn females selling this year either in the United States or Canada. Still another is Escana Beauty 3rd, an exceptionally strong yearling, showing in great form and not bred. These, with a number of younger things, all selling with their sire will, no doubt, place a new average on the get of any Canadian Shorthorn sire. Those who have not as yet received a catalogue of this most important sale should write at once, mentioning this paper, to Mitchell Bros., Burlington, Ont. Full particulars regarding the cattle, terms of sale, train service, etc., are given there, and they will be pleased to mail it even if it is impossible for you to attend.

Every birth
—every death
—every marriage
is an argument in favor of
Life Insurance.

A CHILD, for example, is a visitor always given a glad welcome to the home, but it also brings a responsibility and demands protection. A Mutual Policy protects the "little one."

When death visits a home and the husband and father is taken, life insurance protection immediately becomes an invaluable defence for the stricken household. A Mutual Policy will save the home.

Wedding bells also suggest life insurance. The newly-made wife must not be left to be cared for by friends in the event of her husband being unexpectedly taken from her. A Mutual Policy is an ideal wedding gift.

Moreover a policy should be taken in The Mutual Life of Canada to cover any indebtedness that may have been incurred in purchasing the home; the Company has saved many Canadian homes. A Mutual Policy pays off the mortgage.

For young men who desire to save money, an endowment policy payable to themselves, at the end of a given period, is a golden investment—payable in full to the estate if death occurs prior to maturity. A Mutual Endowment is a gill-edge investment.

Write for booklet entitled, "Ideal Policies."

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SHARPLES
 Famous Suction-feed
 "Skims clean at any Speed"
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Over a million Sharples users in every dairying country of the world. Write for catalog to Department 78.

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Clydesdale Horses-Holstein Cattle-Yorkshire Hogs
 We always have some choice young breeding stock to offer.
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 BREEDER OF HIGH-CLASS CLYDESDALES
 R. R. No. 1. OTTAWA, ONT.
 Write me for prices on champion mares.

WOODLANDS BROWN SWISS AND PONIES
 We have no Clydes left for sale. Our special offering is Brown Swiss bulls out of high-testing and big producing dams. Strictly high-class. Also Shetland and Welsh ponies.
R. BALLAGH & SON, GUELPH, ONTARIO

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 Ottawa,

GREAT SHORTHORN SALE

Comprising 70 head from the noted herds of J. A. WATT, Elora, Ont., and J.M.GARDHOUSE, Weston, Ont.

AT
SALEM STOCK FARM, ELORA, ONT.

Thursday, June 28th, 1917

Some of the choicest Shorthorns in breeding and individuality ever offered in America

45 CHOICE COWS and HEIFERS

20 CALVES

5 BULLS

The best of Scotch breeding is represented in the following families included in the sale: Clipper, Missie, Lavender, Matchless Mina, Kiblean Beauty, Clementina, Village Blossom, Duchess of Gloster, Claret, Jilt, Mayflower, Crimson Flower and others.

These include SHOW STOCK OF BOTH SEXES

First prize junior and senior calves at the Canadian National, 1916; first prize senior yearling, the undefeated Escana Beauty 2nd, by Right Sort; Britannia, by Bandsman's Commander, first wherever shown last year, including Chicago International. Two bulls by Gainford Marquis are in the lot. The Count of Selma, out of the great cow, Countess Selma, and by Oakland Star, will also be sold.

DON'T FORGET THE COWS BRED TO GAINFORD MARQUIS

Write immediately for catalogue, mentioning "The Farmer's Advocate" to

J. A. Watt, Elora, Ont. or J. M. Gardhouse, Weston, Ont.

Special Classes at Ottawa Fair.

As an incentive to the young men through the agricultural districts of the Ottawa Valley and adjacent counties, the Central Canada Exhibition Association will this year offer special prizes to farmers' sons under twenty-six years of age who have not attended any agricultural school or college. The districts have been classified and the prizes graded so as to assure every competitor of an opportunity of winning an appreciable amount at this fair. There will be a live-stock judging competition in which nine prizes ranging from fifteen dollars down to seven will be offered in classes for heavy horses, beef cattle, dairy cattle, sheep and swine. Each contestant will not be permitted to enter in more than two classes. Prizes ranging from thirty dollars down to ten will be offered in a class open to junior farmers for a pair of bacon hogs fed and cared for by the contestant. The counties are in groups as follows.—1: Northumberland, Peterboro, Hastings and Prince Edward; group 2: Lennox and Addington, Frontenac and Leeds; group 3: Renfrew, Lanark, Carleton and Russell; group 4: Grenville, Dundas, Stormont, Glengarry and Prescott. Four prizes will be offered in a class for the best pair of bacon hogs. Open only to winners of the preceding groups. This should interest young men of Eastern Ontario, and in each class there should be a large number of entries.

A rumor has been in circulation for some time among the tobacco growers of Southern Ontario regarding the possibility of a war tax being placed on land put in tobacco in 1917 and afterwards. The amount of tax mentioned in some instances reaches the rather high figure of \$20.00 per acre.

The Tobacco Division of the Department of Agriculture at Ottawa has endeavored to ascertain if there is any foundation for such a rumor, the result of the inquiry being that nothing of the kind has been heard of in Ottawa, even in the highest official circles.

F. CHARLAN,
Chief of the Tobacco Division,
Ottawa, 8th June, 1917.

Electrify Your Ford in Two Hours
An automatic, always-ready, complete Electric Lighting System that banishes kerosene and matches and insures safety and economy.
Genolite \$33.85
consists of Generator, Electric Side and Tail Lamp, Switch, Storage Battery.
Constolite \$6.85
automatically governs the flow of electric current to head lamps.

Fairbanks-Morse Auto Accessories
THE CANADIAN FAIRBANKS-MORSE CO., Limited
Montreal and principal cities.

Electric Side Lamp, Storage Battery, Generator, Head Lamp Control, Light Switch, Nitrogen Bulbs, Dinner Switch.

OUR LATEST IMPORTATION OF CLYDESDALES

arrived at our barns late in November. A number of them since have been prominent winners at both Guelph and Ottawa. But we have others (both stallions and mares) that were never out, the majority of the stallions weigh around the ton, and better quality and breeding were never in the stables. Come and see them. We like to show them. SMITH & RICHARDSON, Columbus, Ontario.

WILLOWBANK STOCK FARM SHORTHORN HERD

Established 1855. This large and old-established herd has at the head the two great bulls, Imported Roan Chief =60865=, a Butterfly; and the prizewinning bull, Brownie =80112= a Minn. An extra good lot of young stock to offer of either sex. Splendid condition. Good families of both milking strain and beef. James Douglas, Caledonia, Ontario.

CREEKSIDE FARM SHORTHORNS

We have for sale, at present, a number of young things by our former herd sire, Clan Alpine (the Claret-bred bull, by Proud Monarch). We like them—so will you. If it's young bulls, or a few females you need, we would welcome a visit from you. Write or phone. Visitors met by appointment. Geo. Ferguson, Elora Station, C.P.R., G.T.R. Salem, Ontario.

IMPORTED SHORTHORN BULLS

We have several newly-imported bulls of serviceable age. Cruickshank, Marr and Duthie breeding, as well as a number of choice, home-bred young steers, got by our noted herd sire, Proud Monarch, by Royal Blood. Get our prices before buying elsewhere. RICHARDSON BROS., Columbus, Ont.

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

Gossip.

Dr. Farewell's Herd Makes New Records.

In reviewing the official lists of seven- and thirty-day records issued by the Canadian Holstein-Friesian Association, of cows that have qualified in the R. O. M. tests during the last few months, it is interesting to note the good showing made by many individuals in Dr. Farewell's herd, Oshawa, Ont. Dr. Farewell has now in the neighborhood of 75 head of Holsteins, and although he has to depend entirely on hired help, two cows with records above 30 pounds of butter for seven days appear in the very recent reports. Segis Mechthilde Korndyke, a granddaughter of Hengerveld De Kol and Blanche Lyons De Kol, has just made 31.43 lbs., and Pietje Pauline Hengerveld, the champion Canadian three-year-old heifer, has increased her 31.78 lb. record to 32.71 lbs. She is a daughter of Prince Hengerveld Pietje, which now has six 30-lb. daughters out of a total of 37 daughters tested. Dr. Farewell has a 3-months bull from the champion cow sired by King Segis Walker, the senior sire in service in the herd. The daughters of King Segis Walker, too, have also been figuring in many of the latter reports. Space will not permit a full list of these, but those reported recently along with those of last year averaged, so we understand, over 400 lbs. of milk and 20 lbs. of butter in 7 days at an average of two and a half years, and an average test of 4.7 per cent. Those mentioned are not only a picked lot but include every daughter of King Segis Walker that has so far freshened. The test, in particular, is exceptionally high, and Doctor Farewell wishes to ask our readers, through these columns, if they know of any other sire whose daughters average as high. In all there are 31 daughters of this bull in the herd, and they are being bred to the junior sire in service, Pontiac Sir Korndyke Wayne, a son of King Pontiac Artis Canada and the 30.80-lb. show cow, Brookland Korndyke Wayne.



The Deacon SHIRT

Lightens Work and Heightens Pleasure

It costs no more to get a really good Working or Outing Shirt—one that fits right, feels good, and wears splendidly. All you have to do is ask for, and see that you get, a "Deacon" Shirt. Sold at all good stores.

DEACON SHIRT COMPANY
BELLEVILLE CANADA

BE SURE AND ASK FOR THE
Maxwell
Line of WASHERS, CHURNS, BUTTERWORKERS, FOOD CUTTERS, GAS ENGINES, etc. Write for Catalogue.
MAXWELLS LIMITED, St. Mary's, Ont.

MESSRS. A. J. HICKMAN & CO. (LATE HICKMAN & SCRUBY), COURT LODGE, EGERTON, KENT, ENGLAND, exporters of
PEDIGREED LIVE STOCK
of all descriptions. Specialty made of draft horses, beef and dairy breeds of cattle, show and field sheep. Illustrated catalogues and testimonials on application. All enquiries answered with pleasure. Now is the time to import. Prospects were never better, and insurance against all war risks can be covered by payment of an extra 1% only.

MORE HORSE-POWER
if your teams are equipped with
Ventis
These pads prevent Sore Shoulders and cure Gail Sores. Your dealer will supply you, or write BURLINGTON BLANKET CO., Ltd., 793 King Street West, Toronto, Canada.

Alloway Lodge Stock Farm
Angus—Southdowns—Collies
SPECIAL this month:
CHOICE BULLS
ROBT. McEWEN, R.R. 4, London, Ont.

BROWN SWISS
Learn the merits of the Brown Swiss. Get acquainted and become a breeder of these cattle. For information, write to
RALPH H. LIBBY,
Sec. of Canadian Brown Swiss Association
Stanstead, Quebec

Kennelworth Farm Aberdeen-Angus
At special prices. Six young bulls sired by Victor of Glencairn. All are of serviceable age, and show individuals.
PETER A. THOMSON, Hillsburg, Ont.

PLASTER HILL HERD
DUAL-PURPOSE SHORTHORNS.
A few choice bull calves coming on; also a few heifers in calf to Butterfly Champion 110726.
F. Martindale & Son, Caledonia, Ont. R. R. 3.

Dr. Bell's Veterinary Medical Wonder. 10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys, Fevers, and Distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly Dr. Bell, V.S., Kingston, Ont.

Mardella Shorthorns
Bulls, females, sires, quality; breeding dual-purpose cattle over 40 years. The Duke—dam gave 13,599 lbs. milk, 474 lbs. butter fat—at the head.
Thomas Graham, Port Perry, Ont., R. R. No. 3

Glenfoyle Shorthorns
Present offering—three bulls from 10 to 12 months. Nice, straight, smooth fellows. Prices easy.
Stewart M. Graham, Lindsay, Ontario

"MAPLE LEAF FARM"
Shorthorns; Shropshires; both sexes. Mail orders satisfactorily filled.
J. BAKER, R.R. 1, HAMPTON, ONT.

SHORTHORNS—Pail-fillers for sale. Young bull and heifers out of high-record cows. A few young cows and bulls with extra good breeding and quality.
PETER CHRISTIE & SON,
Manchester P. O., Port Perry, Ont. Co.

Questions and Answers.
Miscellaneous.

Difficult Urination.

Four-year-old horse is not doing well. He endeavors to urinate frequently. What treatment do you advise?

W. F. O.

Ans.—The symptoms are not very specific. The trouble may be due to obstruction in the urethra or a collection of foetid substance in the little sac at the end of the penis. Have a veterinarian examine for calculi in the urethra. If present he may be able to remove them. Medicines are not likely to give relief.

Sowing Rape in Drills.

I wish to sow 7 or 8 acres of rape so as to eradicate couch grass. I think it preferable to sow in drills to permit of cultivation. Do you advise sowing in raised drills or on the level? How much seed should be sown in drills and what is the usual amount broadcast? J. McK.

Ans.—We would prefer sowing rape on the level. It can be sown from the grass-seed box with a regular grain drill. From 2½ to 3 pounds is sufficient with drills 28 inches apart and 5 or 6 pounds when broadcast.

Keeping Scrub Bulls.

What is the law regarding keeping scrub bulls? I have a registered bull and my neighbor is keeping a scrub alongside of me, in fact two or three of them. If they are allowed to keep them I will have to sell mine. Would you please give me the law whether these men can keep this kind of bull for the service of the public or can they keep him on their own premises for their own use only? If he gets out on the public road and does any damage to his neighbor's cows what is the penalty? A. C.

Ans.—There is no law regarding the quality of bull kept. It is the stockman's loss if they breed to an inferior animal. If a grade or scrub bull is at large and does any damage the owner is liable to the extent of damage done.

Wood Preservative—Hoops for Silo.

What material should I use to treat spruce and balsam, which I wish to use in a silo? Where can I get iron hoops of the right size and what would they cost for a silo 12 by 28 feet? W. K.

Ans.—Tar and creosote are two materials frequently used for treating lumber. They will not, however, entirely prevent shrinking during the summer when the silo is empty. There is always considerable moisture in corn and it is rather difficult to treat wood to prevent it absorbing some of this moisture and swelling when the silo is full, then it naturally shrinks during the summer. Hoops should be placed every three feet around the silo. Half-inch, round iron would serve the purpose and no doubt can be purchased from the local blacksmith or hardware. It would be necessary to have the ends threaded and put through a block or piece of iron so as to permit of tightening up with a nut. The lengths of iron may be welded together so that there will be only one place for tightening, or you could have several places if you saw fit.

Feeding a Stallion on a Route.

Mare was bred but remained in season three weeks. What was the cause? What treatment do you advise?

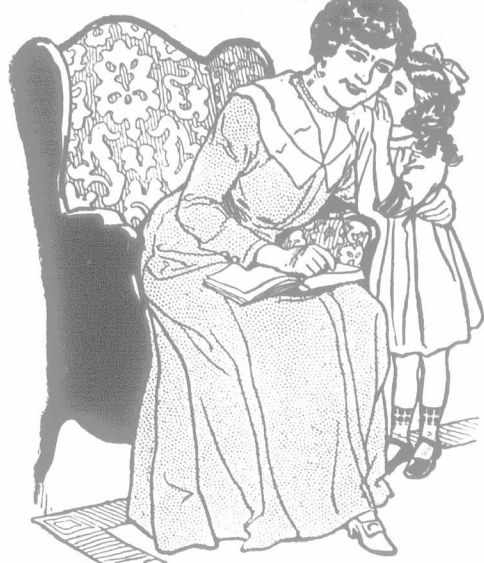
2. How should a stallion be fed when on a route during the breeding season? Should he get much bran or boiled feed?

A. D.

Ans.—While it is unnatural for a mare to remain so long in season it is not uncommon. There is little can be done to relieve the trouble.

2. The feed on the route should be similar to that fed in the home stable. The horse usually gets plenty of exercise and will stand fairly heavy feeding of grain. If used to rolled oats at home arrange to have them on the route. Changing from rolled to whole may upset the digestion and cause trouble. Morn-ing and noon only a limited quantity of first-quality hay should be given, but the horse may have a full feed at night. Grass is generally available and may be fed. Care should be taken in watering. Bran may form part of the ration to advantage, but we doubt the advisability of feeding boiled feed except Saturday nights. Grooms have different methods of feeding which apparently give results. Study your horse and govern the feed accordingly.

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Breeders of high-record, dual-purpose Shorthorns. We are now offering a fine, red bull, calved Sept. 1, 1916. Sire, Burnfoot Chieftain, whose dam has an official record of 13,535 lbs. milk and 540 lbs. fat. Also a nice twelve-months-old bull by same sire. Write for particulars, or better still, come and see our herd. Farm one mile north of Caledonia. **S. A. MOORE, Proprietor, Caledonia, Ontario**

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St. Thomas, Ontario

Questions and Answers.
Miscellaneous.

Manuring Corn Land—Nails in Cow's Stomach.

What is the best way to prepare clover sod for corn when there is about 15 tons of barnyard manure available per acre? I plowed the sod about June 1 and then applied manure and cultivated it in. I have since heard it is considered a better plan to plow the manure under. What is your opinion?

2. A short time ago I lost a nine-year-old cow. She appeared to lose appetite and gradually failed in flesh. When she died I opened the stomach and found three, three-inch wire nails, a wire shingle nail, two pieces of wire about an inch and a half long, and eight pieces of steel shingle nails about three-quarter inch long. The nails were all in a heap and the food around them had turned black. Do you think the nails were the cause of her death? Four years ago this summer I built the barn in which she was stabled. Do you suppose she had the nails in her stomach that length of time?

A. H. V.

Ans.—Some prefer top dressing for corn, while others plow the manure under. One advantage of plowing manure under, shortly before corn is planted, is that the heat generated by decomposition tends to warm the soil and hasten germination. In a dry season the top dressing might be an advantage, while in a wet season the manure would facilitate drainage, especially in clay soil.

2. Undoubtedly the nails were the cause of the cow's death. The fact that she was ailing for some time would indicate this. It is possible but not probable that she would have the nails in her stomach the length of time mentioned. The food had collected around the nails and stopped the passage way. The blackness would indicate that mortification had set in, which was the subsequent cause of death.

Size of Silo.

I would like to build a silo large enough to contain feed for from 10 to 14 head of cattle and other stock which would be kept on an 80-acre farm. I was thinking of one about 10 by 30 feet. I have room in the barn but it is only 25 feet from the cellar floor to the rafters. Would it do to dig 3 or 4 feet in the heavy clay and cement the bottom and walls to the top of the ground? Would this be satisfactory without a drain? How thick should the concrete bottom and wall be? I was intending to use staves above the concrete. Which is considered best: British Columbia cedar untreated, Norway pine untreated, or common pine treated with some good preservative? Should these be tongued and grooved? Which is preferable for bands, common iron or wire cable?

P. T.

Ans.—A silo of the size mentioned would hold considerable corn, but we believe that with the amount of stock mentioned you could use a 12-foot silo. If you did not use up all the silage by spring, it would keep and supply succulent feed during the summer drought. Many make a practice of going several feet below the ground surface. The chief objection is that it makes a little extra work pitching out the bottom silage. No doubt the drain around the barn wall will keep the foundation reasonably dry although an extra tile around the wall would keep the foundation dry. A drain from the bottom of the silo is not an absolute necessity, although it would drain away some surplus moisture should the corn be ensiled when immature. It is advisable to make the foundation from 18 to 20 inches thick and if the ground were all soft we would advise making it even thicker than this. However, this need only extend a foot or two in height. A 5 or 6-inch floor would be sufficient with concrete mixed in the proportion of about one to eight. Above the bottom couple of feet a wall one foot thick would do. British Columbia cedar gets a good name. It has lasting qualities. Common pine, treated with a good preservative, will last for a great number of years. It is advisable to have the staves 2 inches thick and tongued and grooved. Heavy wire or iron rods are serviceable for banding the silo. Whichever are used should be arranged to permit of tightening if the wood shrinks during the summer, and slackened at filling time.

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BLUE-JAY may be bought at any drug store. This means relief is near, if you want it. Painful corns succumb to these inexpensive, wonderful little plasters. Millions of people have mastered corns this way. The treatment is quick and gentle. The first application ends most corns after 48 hours. The stubborn few vanish with the second or third treatment.

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Prove tonight that every corn is needless. Get Blue-jay at your drug store. Relief is instant. In 48 hours your corn is gone forever. Try this certain way once—tonight!

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SOME OF THE BULLS WE HAVE FOR SALE AT ATTRACTIVE PRICES.

1. Born May, 1917, two dams average..... 35.62 lbs.
2. Born March, 1917, two dams average..... 34.16 lbs.
3. Born March, 1917, two dams average (one at 3 yrs.) 34.23 lbs.
4. Born March, 1917, two dams average (one at Jr. 2 yrs.) 33.12 lbs.

These are sons of Avondale Pontiac Echo, our herd sire (under lease) a son of May Echo Sylvia, the world's record cow. Only one other 41-lb. bull in Canada.

Send for extended pedigrees and prices on these and others, a few of serviceable age, are from a 111-lb. cow. We guarantee satisfaction. Twenty-five females for sale.

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Our only offering at present is a bull born February 10th, 1917, a grandson of Dutchland Colantha Sir Mona, and the great cow, Lakeview Lestrage, 28.34 lbs. butter in 7 days. His dam is a high-producer and tester, and carries the blood of King of the Pontiacs and King Segis.

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The only herd in America that has two stock bulls that the dam of each has milked over 116 lbs. a day, and their average butter records are over 35 lbs. a week. We have 50 heifers and young bulls to offer, by these sires, and out of dams just as well bred. We invite personal inspection.

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Of long-distance record makers, the kind that milk heavy and test around 4 per cent. the whole year. Of the six highest butter-fat records of two-year-olds in Canadian R.O.P., one half were bred at Pioneer Farm. Young bulls for sale from dams of the same breeding as these and sired by Canary Hartog, whose three nearest dams average 30 lbs. butter in 7 days and 108 lbs. milk in one day.

WALBURN RIVERS, R. R. No. 5, INGERSOLL, ONT. Phone 343L., Ingersoll Independent.

Low Banks Farm Holsteins K. M. Dalglish, Prop., Kenmore, Ont.

Pontiac Korndyke and May Echo Sylvia—strongest combination of milk and butter in the world. Present offering—3 beautiful young bulls, sired by Sir Echo, from daughters of Pontiac Korndyke, with 2-year-old records of considerably over 20 lbs. each; also 4 sons of Fairview Korndyke, from dams with similar records, going as high as 30.14 lbs. All straight, good individuals at moderate prices.

CLOVERLEA HOLSTEINS

Our entire lot of bulls, fit for service, as advertised, are sold. We still have a number coming on, eight months and under, which will be priced right for immediate sale. Write quick, for they will go fast—as the others did.

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175 head to choose from. Special offering: bulls from one month to one year old. Grandsons of Prince Aaggie Mechthilde. Visitors always welcome.

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Present offering, a bull, 16 months, whose dam won 2nd, Ottawa Dairy Test, 1916. One 11-months bull from a 20-lb. 2-year-old cow. Some fine bull calves from 2 to 5 months; also some choice young cows and heifers with good official records and from R. of M. dams. Write for prices or come and see them.

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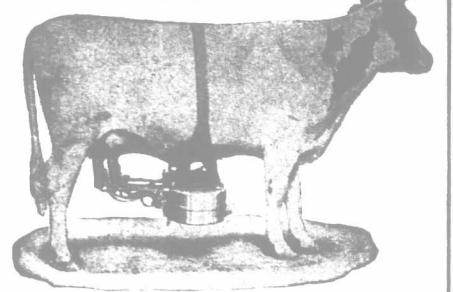
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Unwashed fleece, fine	53c. to 54c.
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Washed fleece, fine	67c. to 68c.
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Ship to-day, or write us telling how much wool you have, if washed or unwashed, and breed of sheep clipped from. We will then quote you a straight price and send you shipping tags with full instructions.

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We have the only 2 sons in Canada of the 46-lb. bull, Ormsby Jane King, only mature son of the world's most famous cow. One of them for sale. Also a 30-lb. calf, whose dam and 2 great grandams average 38 lbs. butter in 7 days. 11 bull calves of lesser note and females all ages.

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Choice Offering in Ayrshires
At Special Prices. Several young bulls of serviceable ages. All from R. O. P. sires and dams. Come and see them.

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Glencairn Ayrshires Herk established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. **Thos. J. McCormick, Rockton, Ont., Copetown Stn., G. T. R.**

Questions and Answers. Miscellaneous.

Cutting up a Beef Carcass.

I purpose doing the killing for a beef ring and would like to get a good sixteen-share chart. What are some of the rules governing a beef ring? W. T.

Ans.—In the May 10 issue of the Farmer's Advocate a chart for a sixteen-share ring is illustrated and methods of organizing and running a beef ring are fully described.

Wormseed Mustard.

What is the name of the enclosed weed? Is it difficult to eradicate? The weed appeared in my hay field this spring. This is the first time I have seen the weed on my place and therefore feel positive I got it in clover seed. W. B. L.

Ans.—The weed received at this office is known as Wormseed Mustard. It is an annual and winter-annual plant and consequently is not difficult to eradicate where a rotation of crops is followed. A large number of seeds are produced to the plant, therefore an effort should be made to prevent this weed going to seed. It is often found growing in waste places and in cultivated land where the grain or grass has been killed out. This weed is avoided by all stock except sheep. The seed is very bitter and even a small amount in the crushed grain will prevent the stock from eating it.

Lump on Colt's Leg—Rupture.

I intend to start farming and would like advice regarding the breed of cattle to keep. There is no sale for milk, but a very good market for beef. What do you think of the Aberdeen-Angus as a beef breed?

2. I have a mare with a calloused lump on the fetlock. What treatment do you advise? I also have a colt two weeks old with a lump the size of a goose egg near its udder. Is this a rupture? What treatment would you advise? D. G. F.

Ans.—It depends a good deal on a man's likes and dislikes. All breeds have their place. There are heavy and poor milkers in all the dairy breeds. The Jerseys are noted for their production of rich milk although they do not give as large a flow on the average as some of the other breeds. The Aberdeen-Angus is a beef breed which is smooth in form, comparatively easy to feed and dress out a good carcass.

3. It is possible that the colt is ruptured. It is advisable to have your local veterinarian examine the colt as an operation may be necessary depending on the location and extent of the rupture.

Heifer Not Freshening on Time.

Grade heifer, two-year-old, freshened March 28, came "in season" regularly up to May 29, was bred the last time on July 4. She did not come in season again, so calf was expected in April. Cow milked well up to this date (6,775 lbs.), but has not freshened yet, June 1. Is there any chance of this cow being with calf? If not, what's the trouble? What is the longest period on record for a cow to carry a calf over the 280 days? What are the most reliable signs of a cow being with calf? What is the custom with regard to service fees where a cow does not conceive? Will a bull cover a cow when not in season?

What course should be adopted with above heifer? Should she be fattened and sold to butcher? This course would be very disappointing to me. G. A. S. B.

Ans.—Cows have been known to go 296 days but they are the exception. If your cow was far advanced she would indicate it by increase in size. It is possible that the animal did not conceive at the time and has been bred since. Some cows do not show very clear signs when in season. When nearing the time of freshening the udder and milk veins enlarge and the cow's middle increases in size. If the calf is living it can very often be seen kicking especially after the cow has taken a drink of cold water. The fee depends on the owners of the bull. It is not customary to charge unless the cow conceives. Sometimes a bull will breed a cow when she is not in season. If she is not in calf and fails to come in season the only thing to do is to beef her.

MANOR FARM

Senior Herd Sire is

KING SEGIS PONTIAC POSCH

Sire, King Segis Pontiac Alcartra (the \$50,000 bull)
Dam, Fairmont Netherland Posch
7-DAY RECORD, 4 YEARS, 29 DAYS

Butter	32.54
Milk	511.50
% fat	5.09

Junior Herd Sire is

KING KORNDYKE SADIE KEYES

Sire, Sir Sadie Korndyke Segis
Dam, Lulu Keyes
7-DAY RECORD

Butter	36.05
Milk	785.40
Highest day's milk	122.80

What better combination can be had? I have no sons from my junior sire yet; there are just a few left from King, from good A. R. O. dams, and priced right to sell.

Gordon S. Gooderham

Manor Farm

Clarkson, Ont.

Hill Crest Aaggie Lad

is For Sale

Born August 25, 1916. Color, more black than white—nicely marked.

His sire—a son of "Rauwerd"—Canada's only 29,000 lb.-cow.

His dam—a 2-yr.-old daughter of "DeKol Mutual Count", a son of "DeKol Mutual Countess", 20,886 lbs. milk, 887 lbs. butter, at 3 yrs. old. Canadian champion.

If you want a sire rich in blood of Canada's long-distance producers, better write us. He is priced very reasonably.

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Sunnybrook Farm Holsteins

YEARLINGS—Male and female for sale, from high-record dams testing from 14 to 30 lbs. butter in 7 days, giving from 7,000 to 12,000 lbs. of milk; sired by Sunnybrook Mercedes Natoye, whose dam has a seven-day record of 29.34 lbs. butter, and Count Faforit Sylvia Segis, highly strained in the blood of the world's only 50-lb. cow.

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We have at present several 30-lb. bred bulls, all nearing serviceable age, that must go out to several of the country's best herds in the near future. They are sired by one of the three sires used in the herd during the past year. Pontiac Korndyke of Het Loo, Avondale Pontiac Echo, or King Segis Alcartra Spofford. Our herd contains more 30-lb. cows than any other herd of equal size in the Dominion. Extended pedigrees mailed on request.

ROYCROFT FARM W. L. Shaw, Prop. NEWMARKET, ONT

WANTED--Registered Females

I am on the market for a number of pure-bred Holstein females, with records up to 30 lbs. Would be pleased to hear from you as to what you have to offer. Kindly state in your first letter, pedigree, price and full information, with photo of each animal

W. G. Bailey, R.R. No. 4, Paris, Ont. Oak Park Stock Farm

SILVER STREAM HOLSTEINS—SPECIAL OFFERING:

Two bulls fit for service, sired by bulls with 30 lb. backing, and from R.O.P. dams with records up to 500 lbs. butter made as two-year-olds. We also offer three bull calves from 3 to 6 months. If you want a bull of like breeding, write quick. Priced reasonable so you can buy.

J. MOGK & SON, R. R. No. 1, Tavistock, Ont.

HOLSTEIN BULLS—HOLSTEIN FEMALES

King Walker Pride is our present herd sire; he is a son of the great **King Walker** and the noted show cow **Pride Hengerveld Lennox**, 30.11 lbs of butter in 7 days. We still have a few sons of his left, and all are from our own high-record dams. Could also spare several two-year-old heifers. Come and see our herd. **Colver V. Robbins, Perry Sta., M.C.R., Fenwick Sta., T.H. & B., Wellandport, Ont**

Edgeley Stock Farm The home of Canada's greatest producing Jersey, **SUNBEAM OF EDGELEY**, the Sweepstakes Dairy Cow at the recent Guelph test; is also the champion R. O. P. butter cow for Canada. Would a grandson or great-grandson of this famous cow improve your herd? We have them. Write for particulars.
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Financing the Insolvent Farmer.

We have received a pamphlet from the National Agricultural Organization Society of the United States, entitled "Financing the Insolvent Farmer," by Leonard G. Robinson. For many years Mr. Robinson was in charge of the farm-loan business of the Jewish Agricultural and Industrial Aid Society, and in that position, he has loaned millions of dollars to farmers under conditions of maximum risk and of minimum security with scarcely appreciable losses. This Society in its 17 years of existence has established on farms in the United States and in Canada some 3,500 farmers, the total financial outlay amounting to \$2,065,391.

In this respect Mr. Robinson states: "To help so many with so small an outlay, requires not only financing, but finessing. How is it accomplished? The first step is to taboo the first mortgage. It is only in extreme emergencies that we make a first mortgage loan. We leave the first mortgage to the vendor of the farm, the bank, the insurance company, or the private investor. The next step is to help our farmers to raise as many additional mortgages as they can for as much as they can. The third step is for us to take what is left over, and what nobody else can be coaxed, cajoled, or sand-bagged to take. For example: of the 396 loans made last year, only 44 were secured by first mortgages, while 182 were on second mortgage, 108 on third mortgage, 27 on fourth mortgage, four on fifth mortgage, 13 on chattel mortgage, five on unsecured notes, and the remaining 13 on purchase contract. Just to show you that all mortgages look alike to us, I will tell you that this year we made a loan for which our security is a sixth real estate mortgage on a farm in Connecticut. And I am willing to wager that we will not lose any money on this mortgage either."

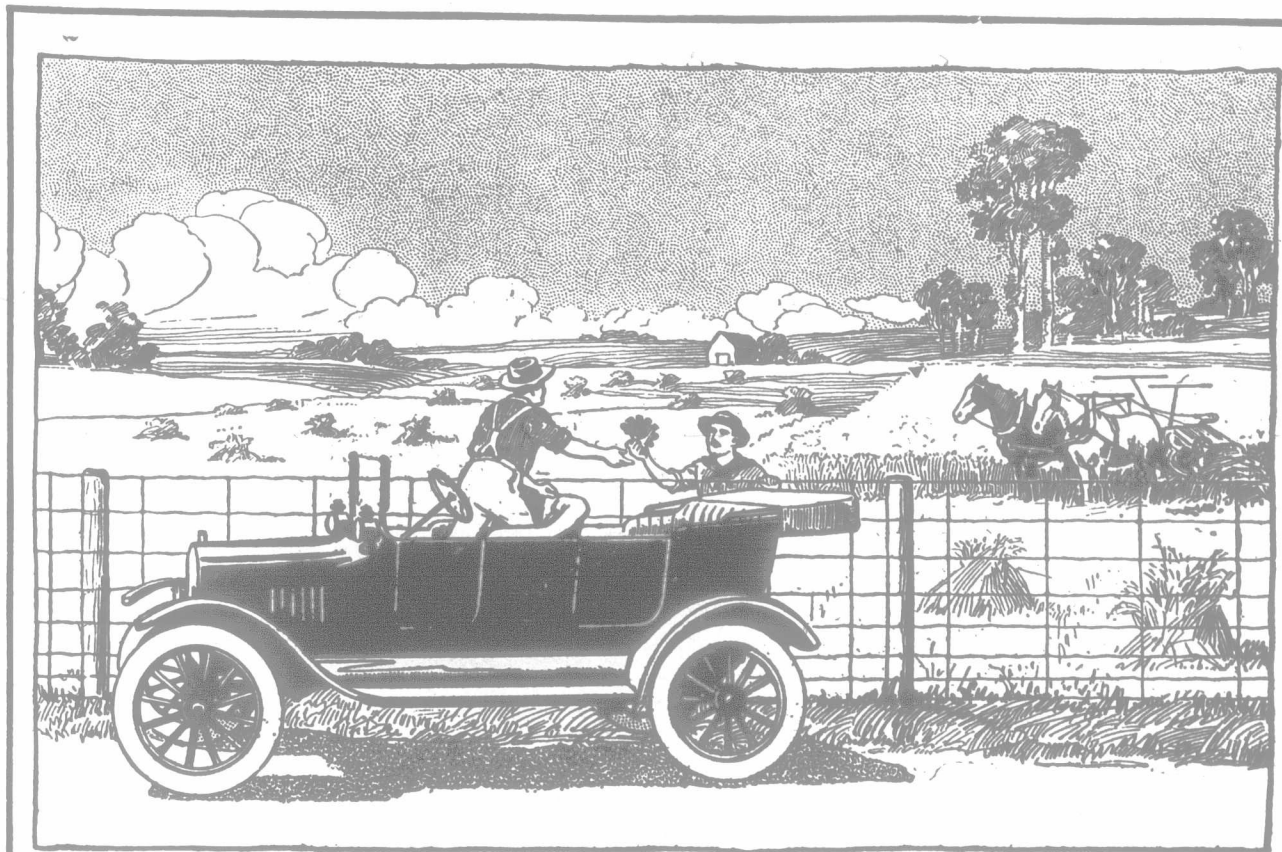
In discussing the problem of the "insolvent farmer," Mr. Robinson has the following to say: "What is an insolvent farmer? An insolvent farmer is the farmer or would-be farmer who cannot give the time honored "Fifty-fifty" first real estate mortgage as security for a loan. To this class belongs the tenant farmer who is compelled to shift from farm to farm because he lacks the means of acquiring a farm of his own. Also to this class belongs the would-be farmer, that is the farm hungry man in the city, native as well as immigrant.

The terms solvent farmer and insolvent farmer may not be technically correct. In fact I have been taken to task for taking undue liberties with the English language, but I note, however, that in subsequent hearings this term was used quite freely, and that it has even been adopted by some of the more important financial publications. Be that as it may, the term serves the very useful purpose of designating the two classes of farmers around whom the recent rural credits agitation has centered, and to draw a clear line of demarcation between two distinct problems. Financing the solvent farmer is a financial problem, pure and simple. All that the solvent farmer needs is the machinery that will place him in a position to compete on equal terms with other solvent industries for the world's surplus funds. But the insolvent farmer, who has no acceptable marketable security to offer, cannot be financed on the same basis.

It is not possible to devise one system of rural credits that will serve equally the solvent and the insolvent farmer. You cannot lower the solvent farmer to the level of the insolvent, nor can you hoist the insolvent to the level of the solvent farmer. Financing the solvent farmer, as I have stated, is a financial problem, but financing the marginal farmer, solving the tenancy evil and promoting the back-to-the-land movement—or by whatever name you may choose to designate the innate land hunger of the average human being—is not a financial problem at all but is a social and political problem. How is the problem to be solved?

Europe in its usual way of doing things has made the problem of the insolvent farmer political and governmental. Even democratic Australia and New Zealand have dealt with the subject on a semi-political basis. The indications are that in this country we are tending in the same direction. (This refers to the creation of government loans to farmers in the United States; the same might be said in regard to our Western provinces).

But while I believe that any state de-



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Cotton Seed Meal, Oil Cake Meal, Gluten Meal, Digestive Tankage, Bran, Shorts, Oats, Crushed Oats, Corn, Cracked Corn, Corn Meal, Feed Wheat, Good Luck Baby Chick Feed, Scratch Feed, Poultry Mash, etc. Write for prices.

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From choice stock on both sides. Several young litters. Also some young sows, ready to be bred.

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Farmer's Advocate, London, Ont.

MORRISTON Tamworths and Shorthorns. bred from the prizewinning herds of England. Tamworths, both sexes, 20 young sows, bred to farrow in June and July. Young boars from 2 to 5 months old; Shorthorns of the best milking strain. **CHAS. CURRIE, Morriston, Ont.**

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A choice litter of pedigreed Collie puppies, sable and white; both sexes. A few good sow pigs, 8 weeks. **B. ARMSTRONG & SON,**
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Young sows bred for August farrow, and a nice lot of young boars for sale. Write: **John W. Todd, R. R. No 1, Corinth, Ont.**

Meadow Brook Yorkshires
I am offering some good litters ready to wean, May 1st. All bred from prize-winning stock. Prices reasonable. **G. W. Miners, R.R.3, Exeter, Ont., Huron Co.**

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Young stock at all times, both sexes and all ages. Can also supply anything in Dorsets or Southdowns. Everything priced to sell. **Cecil Stobbs, Leamington, Ont.**

DUROC JERSEY SWINE.
My herd won all the champion prizes at London, Toronto and Windsor, 1916. Young stock for sale, pairs not akin. Come and see them, or write. Trains met by appointment. **Culbert Malott, R. R. No. 3, Wheatley, Ont.**

Pine Grove Yorkshires Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction. **Joseph Featherston & Son, Streetsville, Ont.**

YORKSHIRES Sows 170 lbs. and under, not yet bred. Boars 2 and 3 months, 60 to choose from. Bred from prize-winning stock, Eldon Duke still at the head. Tell us your wants. **Wm. Manning & Sons, Woodville, Ontario.**

Cloverdale Berkshires and Shropshires—In Berkshires I can furnish boars or sows, all ages, pairs not akin. All breeding stock imp. or from imp. stock. In Shropshires can furnish rams or ewes, any age, from imp. stock. Prices reasonable. **C. J. LANG, R. R. No. 3, Burketon, Ontario.**

PROSPECT HILL BERKSHIRES
Young stock, either sex, for sale, from our imported sows and boar; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right. **John Weir & Son, Paris, Ont., R. R. 1, Sunnyside Chester Whites and Dorsets.** In Chester Whites we have both sexes, any age, bred from our champions of many years. In Dorsets we have ram and ewe lambs by our Toronto and Ottawa champion, and out of Toronto, London, and Guelph winners. **W. E. Wright & Son, Gleanworth, Ont.**

Chester Whites
from choice stock, both sides, young pigs of weaning age for July delivery. Also a few select sows, carefully bred. **ELMDALE FARM**
John Pollard, R. 4, Norwich, Ont.

siring to develop its agricultural resources or where farm tenancy has become a menace in its body politic, cannot go very far wrong in recognizing the social and political significance of these problems and in endeavoring to solve them through the use of its credit and taxing power. I am not altogether convinced that state action is indispensable or that it is even the best or most practicable solution of this vital—and, in the last analysis, national problem. Apart from any political consideration, the states where the problem is the most acute are the least likely to deal with it on rational business lines, and it is on business lines alone that the problem can be satisfactorily dealt with.

In a loan aggregating \$2,065,391 made through the Jewish Agricultural and Industrial Aid Society, the total losses amounted to \$64,217. This indicates that our insolvent farmers are not so insolvent as they appear, as is shown by the way they meet their obligations. Just think! This is what is accomplished with farmers who were not only insolvent financially, but agriculturally as well. What, therefore, could not be accomplished with our army of indigenous tenant farmers, inspired by a new independence and a new hope? And what could not be accomplished with some of the best European farming material right in our midst if given a chance of land ownership, which to them is the emblem of nobility? While wrestling with our own difficulties and solving our own problems, I have often wondered why American philanthropy, American statesmanship, American enlightened self-interest, has so long overlooked a field of activity so pregnant with good, so fruitful in results and yet so consonant with sound business and financial principles.

What is needed is a national organization—call it if you will, the Agrarian Bank of America—that will perform on a nation-wide scale the same functions the Jewish Agricultural and Industrial Aid Society is performing for the Jewish immigrant.

It is not my intention here nor is this the time or place to enter into details of the organization of such a Bank, but what I have attempted to show is that the insolvent farmer is to all intents and purposes in no better position to-day than he ever was. I have endeavored to set forth the essential principles of the problem. I firmly believe that there is enough vision and imagination and enough public spirit and enlightened self-interest in this country to solve the problem of the insolvent farmer along rational business lines.

I hope you will not think I am a back to the soiler. I am not. I do not believe there is any greater virtue in making two blades of grass grow where formerly there grew but one, than in building two automobiles where formerly there was but one. Besides, the automobile has been the greatest single influence in farming of all time. I am not especially interested in the reclamation of the desert, the swamp or the abandoned farm. I am more interested in the human factor engaged in the work of reclamation. I am not nearly as much interested in increased agricultural production as in the agricultural producer.—Farmer's Advocate, Winnipeg.

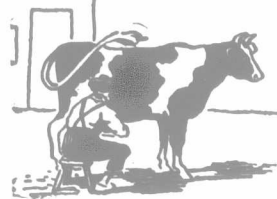
Gossip.

Plaster Hill Shorthorns.

Messrs. F. Martindale & Son, of Caledonia, Ontario, report that their Plaster Hill herd of dual-purpose Shorthorns are doing real well. They have sold all the bulls of serviceable age at present, and report the following recent sales: One bull to George A. Hodge, Cookshire, Que.; one bull to Isaac Leach & Son, Thessalon, Que., and one bull to Angus Holstein, Caledonia, Ont. Messrs. Martindale report that their herd consists of big dual-purpose cows milking around 40 to 60 pounds per day, the kind that are profitable. They have a few heifers coming on which they will dispose of. They are due to calve this fall to the stock bull Butterfly Champion, a son of Butterfly King 19th, which has qualified with the four daughters in the official R. O. P., and a grandson of that grand old bull, Butterfly King (imp.). This bull is bred from a family of high-testing cows whose butterfat tests range from 4 to 5 per cent. Parties wanting something in dual-purpose Shorthorns should write to F. Martindale & Son, Caledonia.

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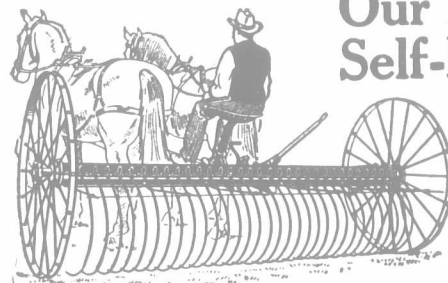


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curved and adjusted that they gather up every bit of hay without digging into the ground or stirring up grit and dust. The self-dumping device operates from either wheel and is adjustable for use in either heavy or light hay, also adjustable for fast or slow driving. Our New Rake is made in 8, 9 and 10 ft. sizes, for either one or two horses. Write for free descriptive folder.

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Shakespeare Station, G.T.R.

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We have for sale at present some young pigs of a breed new to Canada but standardized and very popular in England, from our pure-bred imported **LARGE BLACKS**. Stock excellent for crossing with other breeds. Their English reputation is that they grow large and fast. Also for sale, pure bred English Berkshires. **Lynnore Stock Farm, F. Wallace Cockshutt, Brantford, Ont.**

Duroc Jersey Swine Just home from quarantine; Brookwater Principle Orion, sired by that great sire, The Principle 4, that has proven himself one of the greatest sires in the U. S., which we are using on a number of imported and home-bred sows for spring farrow. A few of the sows and young stock for sale at all times. Pairs furnished not akin. **L. A. PARDO & SONS, R.R. No. 1, CHARING CROSS, ONTARIO**

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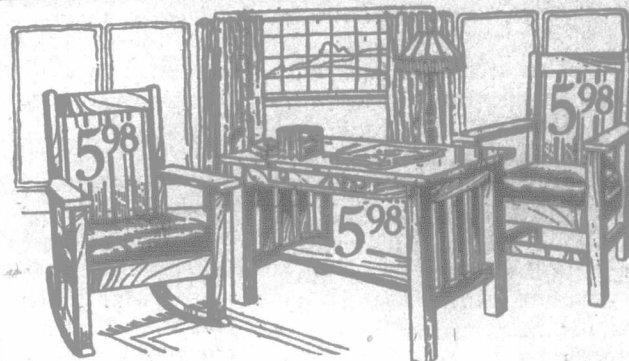
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For full information as to terms, regulations and settlers' rates, write to:—

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Hon. G. H. Ferguson, Minister of Lands, Forests and Mines

Information, Practical and Timely, for the Housewife

The necessity of conserving every ounce of food this season gives the matter of Home Canning a new significance and an increased importance

An abundance of vegetables and fruits for the table is made practicable by home canning; and it is profitable to individuals and to the nation alike.

Preserved Vegetables and Fruits

- Give variety to the diet.
- Have an important food value.
- Improve health and lower doctor bills.
- Take the place of more expensive foods.
- Liberate larger supplies of food grains and meats to be exported to our Allies.

Therefore, the woman who can find time to preserve what would otherwise be wasted, or who will sell or give away what is not required for her own use, will be doing a valuable patriotic work and will be promoting the health and comfort of her own family.

Expensive Equipment is Not Necessary

It is quite possible to do successful home canning by using only such equipment as the farm and home may easily provide. A wash boiler, or a pail with a close-fitting cover, and a wooden or wire rack to keep the jars from touching the bottom, makes an excellent "hot-water bath" outfit.

Canning Fruit in a "Hot Water Bath"

Make a syrup using the following proportions of sugar and water:

For strawberries and sour cherries 2 cups sugar to 1 cup water.

For peaches and plums 2 cups sugar to 1½ cups water.

For pears, peaches, sweet plums, sweet cherries, raspberries, blueberries, blackberries, 2 cups sugar to 4 cups water.

Sterilize jars by placing them in cold water and bringing the water to boiling point.

Pack prepared fruit in sterilized jars, fill with syrup, place covers in position but do not screw down. Set jars on rack in boiler and pour warm water into the boiler to come nearly to tops of jars.

Cover and cook until fruit is cooked through. Allow about 20 minutes after the water begins to boil for soft fruits like berries, cherries, peaches, plums and from 30 to 40 minutes for hard fruits such as apples, pears, quinces.

Remove jars from boiler. Fill to overflowing with boiling syrup. Seal and screw down tops.

Canning Vegetables

Vegetables are canned in the "hot-water bath" in much the same way as fruits, only the sterilization is more difficult. Either of two methods may be followed:

One-Day Method.—By the one-day method of sterilizing we mean placing the jars in the canner and heating them continuously at the boiling point or above it, for several hours. Usually if this heating is continued long enough the vegetables will have

Intermittent or Three-Day Method.—The jar is taken out of the canner at the end of an hour's boiling. The clamp or rim is tightened and the jar is set aside to cool until the following day. Do not let the vegetables cool off in the canner, as this results in over-cooking. On the second day, the clamp is loosened or the rim unscrewed, the jars are placed in warm water deep enough to reach within an inch of the tops, and they are left until they have been boiled an hour, at the end of which time they are again removed. On the third day the hour's boiling is repeated in the same way.

The three-day method is advisable when peas, beans, corn and greens are canned. Sometimes certain organisms, on these vegetables, go into a restive or spore form in which they are not easily killed by boiling. If, for example, there are spores in a jar of peas, they will probably not be killed by one hour or even by three hours of sterilizing. So after an hour's cooking, we set the jar aside until the next day, and as it gradually cools, conditions become just right for these spores to germinate. Most of them quickly change to an active or vegetative form in which it is possible to kill them by boiling. The second day, these vegetative forms are killed. It is barely possible, however, that some of the spores may not have reached the vegetative stage during the first cooling, and so have not been killed by the second boiling. For this reason we take the added precaution of sterilizing the third day.

A longer cooking period for a single day is less trouble and perhaps it requires less fuel than the three-day method, but the intermittent method is absolutely safe. It is for the housekeeper to decide which method she wishes to use and then follow explicitly the directions for that method.

Preserving Vegetables in Brine

String beans, cucumbers, etc., may be kept for winter use by packing in a brine in stone crocks. The two common methods of doing this are:

1. To pack the vegetables in the crock and cover with a concentrated salt solution made by stirring salt in a pail of water and continuing to add salt until the water will not dissolve any more. Pour off the clear brine; add more water to the salt in the pail and continue until the vegetables are completely covered. Place a weight on top to keep the vegetables under the brine, cover the crock and set in a cool place.

2. Pack like sauerkraut. This method would not do for larger vegetables like cucumbers which could not be packed tightly. Place a layer of vegetables in a crock, sprinkle with salt as in making sauerkraut. Pack solidly, place under a weight and keep in a cool place.

Preservation of Eggs in Water Glass

Eggs should be preserved when the production is greatest and the price is lowest. Eggs preserved in water glass can be successfully kept for as long a time as one year. They are practically as good as fresh eggs for all cooking purposes. The commercial water-glass solution may be obtained from any drug store. Water-glass in the form of a powder is now on the market. It can be dissolved in a definite quantity of water, as stated in the directions on the package, and for this reason is more reliable than the commercial solution, which varies in concentration.

Pork Sealed in Dripping

Beef, chicken or fresh pork may be canned quite as easily as vegetables. A very easy and satisfactory way to preserve fresh frying pork is to slice and fry the meat, cooking it almost as much as you would for immediate use. Place the pieces in layers in a stone crock, pouring hot fat over each layer and making sure to have the top completely covered with fat. This makes a seal under which the meat will keep perfectly. It is better to use small crocks for this purpose, however, as the meat does not keep long after the seal is broken.

For immediate and complete information regarding any of the following, write the Office of the Commissioner of Agriculture, Parliament Buildings, Toronto, Ontario.

Rules and Recipes for Canning Fruits.

Raw Canning of Small Fruits and Rhubarb.

Sugarless Canning.

Fruit Jams and Relishes—Apple Butters.

Preserved Fruits.

Jelly Making.

The Canning of Vegetables.

Simple Equipment for Home Canning, and Commercial Outfits—How to use Tin Cans.

Recipes for Vegetable Canning. |

Preserving Vegetables in Brine; Sauerkraut, Pickles.

Canned Meats and Soups.

Packing Eggs in Water glass.

Drying Apples and Small Fruits.

The Storing of Winter Vegetables.

The Department of Agriculture, Women's Institute Branch, is issuing a bulletin on "The Preservation of Food—Home Canning," giving detailed information on the foregoing points. It may be secured upon application in the near future.



Ontario Department of Agriculture

Parliament Buildings, Toronto

SIR WM. H. HEARST

Minister of Agriculture

G. C. CREELMAN

Commissioner of Agriculture