

12, 1916

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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE  
AND  
SUCCEED  
FOUNDED 1886

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

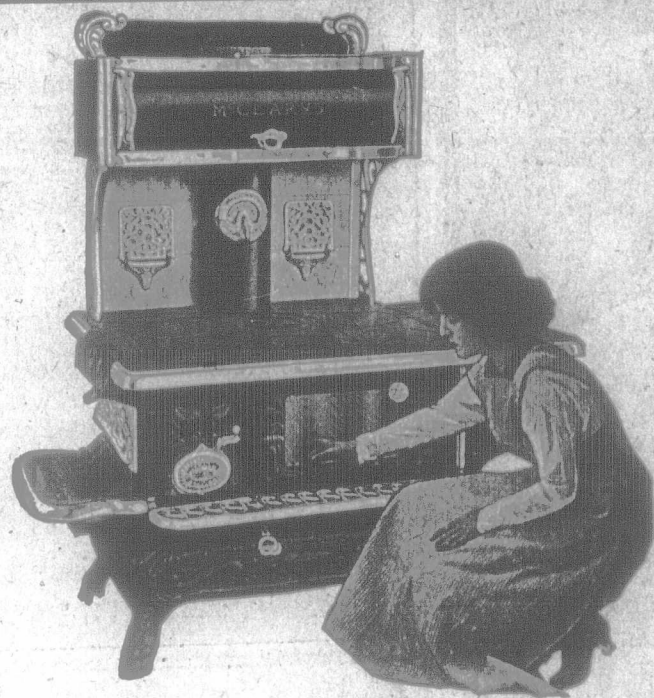
VOL. LI.

LONDON, ONTARIO, OCTOBER 19, 1916.

No. 1256

## Glass Door **Isn't this a wonderful Oven**

Tested thermometer  
Walls of nickeled steel  
Economy flue system  
Ventilation



WHAT more could be added? Here is an oven you enjoy using, an oven that saves your fuel, and that helps you serve finer meals than you ever thought you were capable of cooking.

**1** The Glass Oven-door saves all the time you use to spend getting up and down to watch your baking. Now a glance, as you go about your other work, tells you how everything is baking in the oven.

**2** There is no guess-work about the heat of this oven. That is because we test the Pandora Thermometers. When the Oven is right, the thermometer says so. Now, that means a lot in having your bakings always the same.

**3** And should the cooking bubble over, the Pandora oven is so easily cleaned. The quick-heat steel used in making the oven walls is heavily nickel-plated. No metal could be more sanitary and rust-proof.

**4** But the saving of coal—one of the natural reasons for the success of this wonderful range—is not all made by the special walls of the oven. The nickeled steel allows heat to penetrate into the oven very quickly, but it is the McClary flue system that directs the heat twice around the oven and stops the usual wastage.

**5** The Ventilated Oven carries off all cooking odors. You know what that means—no smudge or disagreeable odors around the house at meal times.

Tear off this Coupon

## McClary's Pandora Range

Kindly send me a copy of your booklet, "The Magic of the Pandora."

It won't be hard to decide which range you want to have in your kitchen after you learn everything about the Pandora. You can study out its features of convenience and economy in your own home by reading the booklet we

have prepared, "The Magic of the Pandora." The whole book is clearly written and illustrated. There is a copy for every one who wants it. Send the coupon to the factory.

Name.....

Address.....

**McClary's**

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St. John, N.B.

Toronto  
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Montreal  
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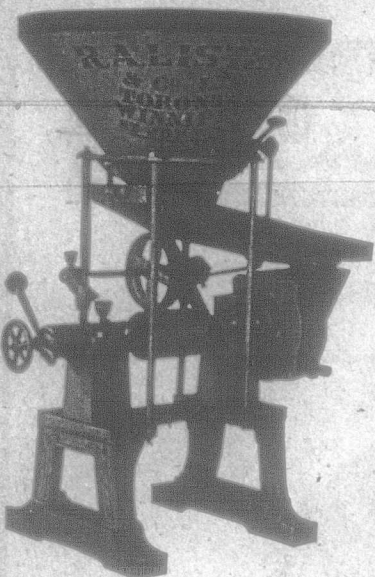
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**The LISTER Gasoline Engine**  
British Built

Lister Engines, Thrashers, Silos, Ensilage Cutters, Milkers, Sprayers, Electric Light Plants, Melotte Separators.

*The Grinder with the Guarantee*



**R.A. Lister & Co., Ltd.**  
Dept. G,  
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Send your **RAW FURS** to **JOHN HALLAM**

and receive highest cash prices. We send money the same day the furs are received. Charge no commissions—and pay all charges. We have paid out millions of dollars to thousands of trappers in Canada, who send their furs to us because they know they get a square deal, and receive more money for their furs. You will also. We buy more furs from trappers for cash than any other five firms in Canada. Hallam's Trapper Guide (50 pages) FREE Hallam's Sportsmen's Catalogue Hallam's Raw Fur Quotations Hallam's Fur Style Book (50 pages) Sent free on request. Address as follows: **JOHN HALLAM Limited**  
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Build Silos, Dwellings or any class of building from Concrete Block. The London Adjustable Concrete Block Machine makes every kind and size of block. High grade. Moderate price. We manufacture a full line of Concrete Machinery. Send for Catalogue No. 3.

**LONDON CONCRETE MACHINERY CO.,**  
Dept. J.B., London, Ontario  
World's Largest Manufacturers of Concrete Machinery

**OATS AND POTATOES**

For Sale in Car Lots  
**LAING BROS.,** Winnipeg, Man.

# The 1917 Ford Touring Car

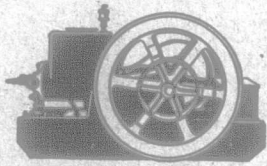
**THE** old, reliable Ford Chassis—Stream line effect—crown fenders—tapered hood—new radiator with increased cooling surface.

Chassis - \$450	Coupelet - \$695
Runabout 475	Town Car 780
Touring Car 495	Sedan - 890

f.o.b. Ford, Ontario

**Ford Motor Company of Canada, Limited**  
Ford, Ontario

Assembly and Service Branches at St. John, N. B.; Montreal, Que.; Toronto, Ont.; Hamilton, Ont.; London, Ont.; Winnipeg, Man.; Saskatoon, Sask.; Calgary, Alta.; Vancouver, B. C.

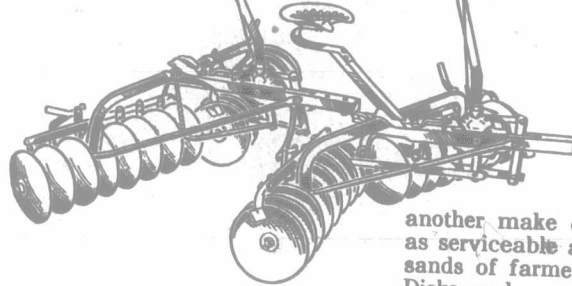


**Goes Like Sixty \$65**  
**Sells Like Sixty**  
**Sells For Sixty-five**

The greatest engine value ever offered—our new 2 1/4 h.-p. engine—ready to go to work on your farm, for only \$65. No farmer in Canada to-day can afford to be without this engine. It is absolutely guaranteed for FIVE years. Write us for our free trial and demonstrating offer on any size for the first one in each neighborhood.

Gilson Mfg. Co., Limited, 249 York Street, Guelph, Ontario

**Sizes for Horses or Tractors**



Use the Bissell Double Disk Harrows. They have great capacity for cultivating, and have made a record for working the soil better than other Disks—in fact, you won't be able to find

another make of Disk Harrow nearly as serviceable as the Bissell. Thousands of farmers have tested Bissell Disks and proved them to have the

"knack" for doing the best work. They are simple in design, durable and Built for Business. Write Dept. W for Booklet. Man'fd exclusively by—

**T. E. BISSELL COMPANY, Ltd., Elora, Ontario**



MADE IN CANADA.  
Write TO-DAY for illustrated Booklet 'G' describing the various styles and sizes of "Elite" and "Peerless" Folding Tables. It's FREE.

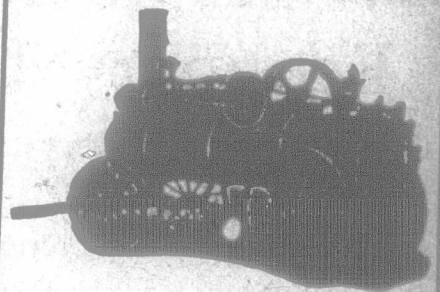
**BEHIND THE CURTAINS**

NEVER knew it was there! Of course not! That's why it's so handy. Never in the way, because it can be folded up and tucked away out of sight. The

**ELITE FOLDING TABLE**

may be produced, at a moment's notice, from under the sofa—behind the portieres—anywhere. Light as a feather and firm as a rock. Everyone who sees one wants one. Your Furniture Dealer has it, or will get it for you. Ask him.

**HOURD & CO., LIMITED,**  
Sole Licensees and Manufacturers  
London, Ont.



**Rebuilt Portable, Traction Engines and Thrashers**

A number of good rebuilt Portable and Traction Engines suitable for silo filling and Thrashing, also a few good separators for sale cheap.

**The Robt. Bell Engine & Thresher Company, Limited**

SEAFORTH ONTARIO

**GRAND TRUNK RAILWAY SYSTEM**

**HOMESEEKERS' EXCURSIONS**

Round trip tickets to points in Manitoba, Saskatchewan and Alberta via North Bay, Cochrane and Transcontinental Route, or via Chicago, St. Paul or Duluth, on sale each Tuesday until Oct. 31st inclusive, at low fares.

Through Tourist Sleeping Cars to WINNIPEG on above dates, leaving Toronto 10.45 p.m., no change of cars, via Transcontinental Route.

RETURN LIMIT, TWO MONTHS. Exclusive of date of sale. Final return limit on all tickets, December 31st.

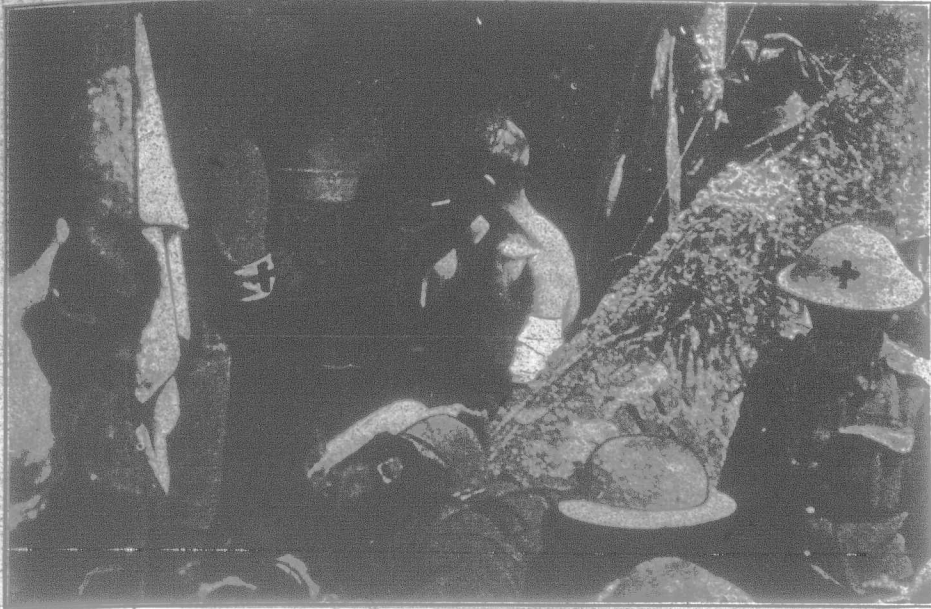
Berth reservations and full particulars at all Grand Trunk ticket offices or write C. E. HORNING, District Passenger Agent, Toronto, Ont.

**H. Fraleigh, Forest**

LINSEED MEAL  
FLAX SEED  
OIL CAKE  
COTTON SEED MEAL

Write For Prices

Please mention "The Advocate."



Dressing Station, Firing Line—Official Film, "Battle of the Somme."

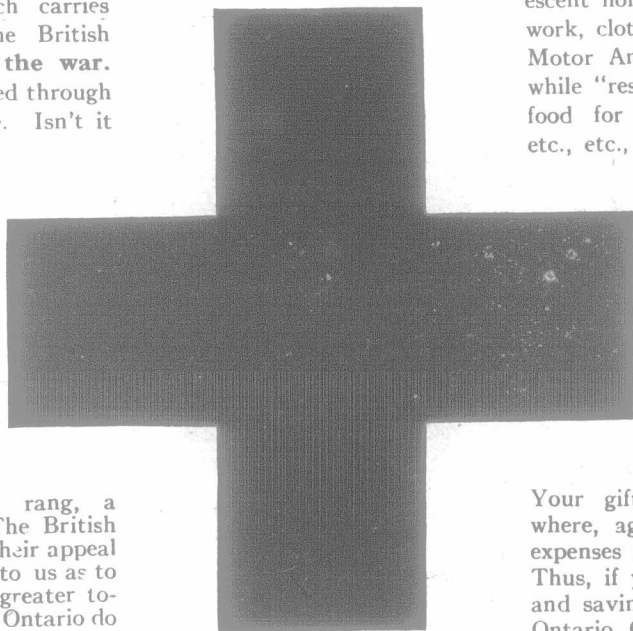
# GIVE and HEAL!

An urgent call for help again goes forth from the Motherland's mighty life-saving agency—the British Red Cross. The Empire is called upon to give greatly, give lovingly, give quickly, that the sick, wounded and suffering on all the battle fronts may not languish and perish in their hours of deepest need.

Here is a great work in which all can share. The Joint War Committee of the British Red Cross Society and Order of St. John is the only institution which carries voluntary aid to the sick and wounded of the British forces on land and sea in every region of the war. Thousands of lives of our bravest and best are saved through this splendid work. YOUR gift may save a life. Isn't it worth doing? It is. GIVE!

The Red Cross looks after the transportation of sick and wounded—it equips thousands of hospitals, rest and convalescent homes. It supplies countless requisites for hospital work, clothing and other comforts. Over 2,000 Red Cross Motor Ambulances are at work on the various fronts, while "rest stations," hospital trains, steamers and launches, food for prisoners, books, special work for the blind, etc., etc., are a few only, of Red Cross activities.

Make "Our Day" Your  
Red Cross Gift Day  
Give on Oct. 19



The Sick and Wounded  
Call for Your Help  
Give on Oct. 19

Ontario's princely gift in 1915 of \$1,514,000 rang, a clarion mercy call, throughout the Empire. The British Red Cross were grateful beyond measure, and their appeal through Lord Lansdowne, President, now comes to us as to friends who sympathize and help. The need is greater today than a year ago—it is ever growing. Will Ontario do less than she did last year? No! GIVE—give a day's pay, give all you can, GIVE.

Your gift will go entirely to the British Red Cross, where, again, through much voluntary work, the working expenses are cut down to only 2 1/4 % of the total revenue. Thus, if you give \$10, actually \$9.77 1/2 goes to the healing and saving of some stricken hero. The expenses of the Ontario Committee, advertising, printing, etc., are being met entirely by the Provincial Government.

**Premier Hearst Has Seen the Work**

"My visit to England and France has aroused deeper appreciation than ever of the splendid work of the Red Cross. It deserves every support, and I trust the people of Ontario will respond with their usual generosity to the British Red Cross Appeal for OCTOBER 19th."

HON. W. H. HEARST,  
Prime Minister of Ontario

**Mr. N. W. Rowell, K.C., Brings a Red Cross Message**

"I bring a message of cheer to those who have relatives at the front and who fear they may be wounded. I believe everything human skill can do, that human care and sympathy can provide, is being done and provided each day and each night throughout the year by the Army Medical Corps and the Red Cross. It is a perfect marvel of efficiency."

MR. N. W. ROWELL, K.C.,  
Leader of the Opposition.

He gives twice who gives quickly.  
Your help is needed NOW!

The Motherland's only direct appeal to us for help in this great war is her great Red Cross mercy work. Ontario's response must and will be quick and generous. Give through the Treasurer of your local Committee—or, send your subscription to the Clerk of your municipality—or, make it payable to Hon. T. W. McGarry, Treasurer British Red Cross Fund for Ontario, Parliament Buildings, Toronto.

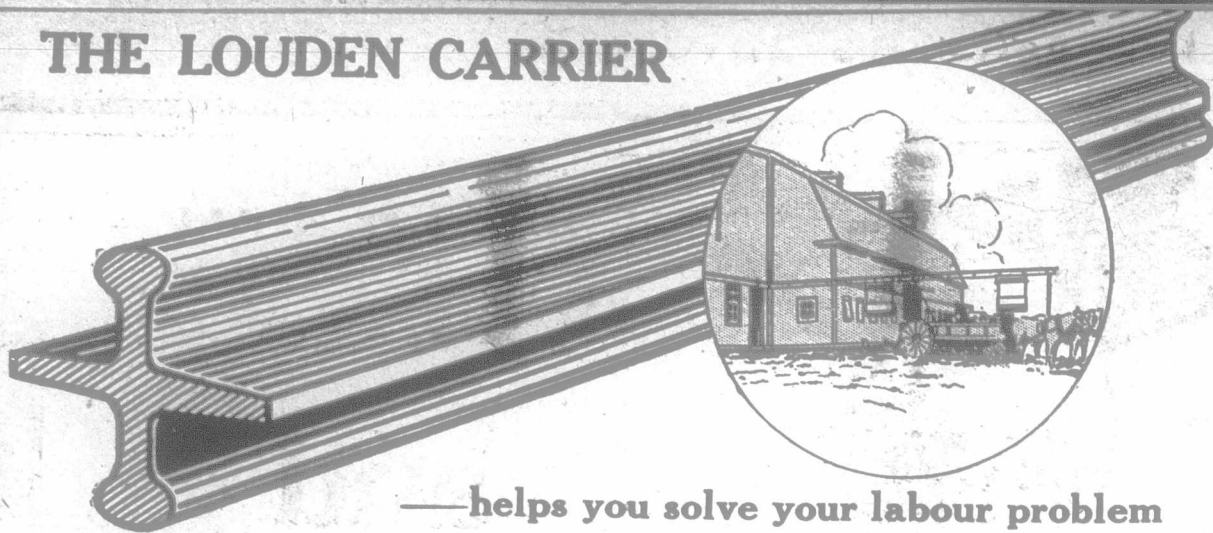
Don't Let Your Stricken  
Defenders Call in Vain, but

Give and heal



Wounded in the Trenches—Official Film, "Battle of the Somme."

## THE LOUDEN CARRIER



—helps you solve your labour problem

**T**HOUSANDS of Louden Litter Carrier outfits were installed when labour conditions were normal, and they have since given daily demonstrations of their value, as savers of time, and of labour. How much greater this value to-day, when farm help is scarce, and high in price. Secure

a price on a complete Louden Litter Carrier outfit from our dealer in your locality, or from us direct. You will be surprised at the low cost of the equipment, which lasts a life-time, and at the saving in the cost of performing a hard and disagreeable task.



Litter Carrier equipment to give satisfaction must be right in design, in material, and in workmanship. You can purchase Louden equipment, assured that on each count, you are getting the best.

Louden track is centre hung, weighs two pounds to the foot, and is high carbon steel. Full strength of the steel bars. They are neither punched nor drilled for splicing or attaching the hangers. This track can be curved without heating, right in your own barn.

Litter Carrier box is made of heavy galvanized steel. Strongly reinforced with angle iron. No wood to rot out, or get manure soaked.

Louden Litter Carriers will move and lift the heaviest loads, with but little effort.

Write for Catalogue—It is Free.

LOUDEN MACHINERY CO. OF CANADA, Limited  
DEPT. 712 - GUELPH, ONT.

WINNIPEG, MAN. VANCOUVER, B.C. ST. JOHN, N.B.

7

### Proved Accuracy

Dominion has stood the test and is the only ammunition made in Canada. When you need a shot shell of proved accuracy and dependability that will respond instantly to aim and trigger-pull insist on

### Dominion Shot Shells

Their sensitive primers, their proof against climatic changes and their balanced load has made Dominion the best shot shells for partridge, ducks, prairie chickens and all Canadian small game. Imperial, Canuck, Sovereign, Regal and Crown are Dominion Shot Shells that meet the accuracy test.

Send today for our attractive free hanger "A Chip of the Old Block".

**Dominion Cartridge Company Limited,**  
829 Transportation Bldg.,  
Montreal.

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### Scientific Eye-Examining \$3.00

Correct Glasses—Free of Charge to Every Patient Consulting our Specialist.

THE BROWN OPTICAL COMPANY  
223 Dundas Street, London, Ont.

### Cider Apples Wanted

We are prepared to pay the highest cash prices for cider apples in car lots. Farmers who have not sufficient to make up a whole car themselves can arrange with their neighbors for joint shipments. Write us if you have any to offer.

BELLEVILLE CIDER & VINEGAR COMPANY  
Hamilton Ontario.

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### Big Stumps Out Quick And Easy With A Kirstin One-Man Stump Puller

Lowest Cost On Record

### Save Money On Land Clearing

Clear your land the easy, practical, economical way—the KIRSTIN One-Man way. The KIRSTIN costs little—holds record for low cost of operation—costs nothing for upkeep. One Man handles and operates with ease. The Powerful Improved Kirstin Double Leverage Cable Model with its Multiple-Speeds, Short Lever, Quick Detachable Connections, Auto Release, etc., is the most wonderful and efficient land clearing device you ever saw. Write today for big new prices. You want your land cleared the best, quickest, cheapest way. A KIRSTIN will do it. Our free catalogue and booklet tell how. Don't wait—write now.

A.J. Kirstin Canadian Co., 5122 Dennis St.,  
Sault Ste. Marie, Ont. Made in Canada

## Maxwell HOME WASHER

—A high speed ball bearing washer that is light, noiseless and easy running; enclosed gears making it safe in operation.

The construction of the dasher makes this type the best for the thorough washing of everything.

It can be operated by hand power or water motor.

It is made in Canada of best quality cypress, and is superior in design, construction and finish to any imported washers.

Insist on seeing this Maxwell "Home" Washer at your Dealer's, or write to us.

MAXWELLS LTD.  
St. Mary's, Ont.

Dept. A



My Dad wears

## BOB LONG

UNION MADE  
GLOVES & OVERALLS

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

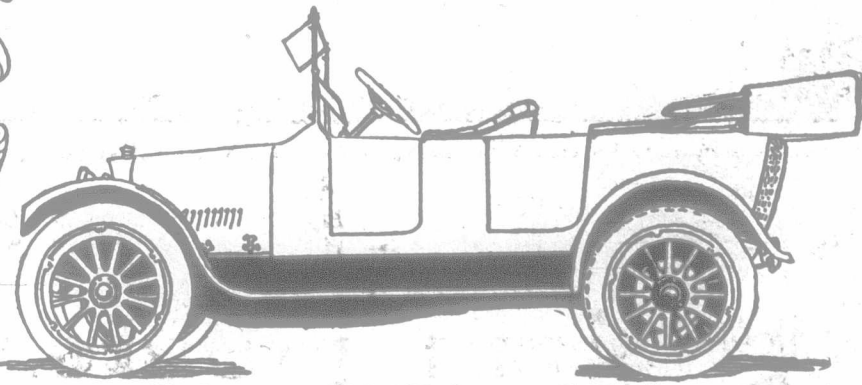
### R.M.S.P.

### FORTNIGHTLY SAILINGS

BY  
Twin-Screw Mail Steamers  
FROM  
ST. JOHN (N.B.)  
AND  
HALIFAX (N.S.)  
TO THE  
**WEST INDIES**

Excellent Accommodation for 1st, 2nd and 3rd Class Passengers  
SPECIAL FACILITIES FOR TOURISTS

NEXT SAILING FROM HALIFAX  
R.M.S.P. "Chignecto"  
October 20, 1916  
APPLY TO  
The Royal Mail Steam Packet Co.,  
57-59, Granville St., HALIFAX (N.S.)  
OR TO THE  
Local TICKET AGENCIES



The New Reo the Fifth, "The Incomparable Four," \$1225, duty paid, f. o. b. Lansing, Mich.

## Here's the Secret of Reo Reliability

**DOUBTLESS YOU'VE WONDERED**—knowing as you do, how absolutely dependable are Reo cars—how free from troubles, and how low in upkeep cost; **YOU'VE WONDERED** wherein lay the secret of that reliability that is Reo.

**WELL, WE'LL TELL YOU.** And then you'll wonder at its ridiculous simplicity.

**YOU READ, IN THE ADS,** how this engineer or that inventor has revolutionized the science of engineering and produced a wonder-working car.

**YOU READ THAT** every year—only this year it's another engineer. That revolutionary stunt of last year has been forgotten.

**IT WAS AS IM'OTENT** as a South American revolution—it didn't!

**SO THE SECRET ISN'T** to be found in any such feat or invention.

**REO PERFORMANCE**—reliability, dependability, uniformity of performance of all Reos, of whatever model or price—is the result of the taking of infinite pains in the designing, the making and the inspection of the Reo product.

**IT'S THE LITTLE THINGS** that count—not the big ones.

**ANYONE—A BOY EVEN**—can make a motor that will be "different." Or an axle, a transmission or a set of springs that might impress the tyro as new and wonderful.

**BUT TO MAKE ANY** of these vital units better—that is the task—that should be the aim. It has always been the Reo aim.

**INFINITE CARE** in the fabrication and then in the inspection, and finally in the testing of the assembled whole—that is the secret of Reo success in making, not the most but the best, automobiles.

**IF THERE ARE 2000 PARTS** in a motor car; and if there's an average of four machining operations on a part—that's 8000 chances for something to go wrong!

**AND ONE DEFECTIVE PART**—one, however small or seemingly insignificant—that does not fit absolutely, and you'd have a car that would be less than a Reo in performance—more than a Reo in cost of upkeep.

**INFINITE PAINS, WE SAID:** Perhaps that's too big a term. But if you could know how great is the task—how unremitting the care—to guard against even one little error creeping into any one of these 8000 places—you'd grant us the word "infinite."

**"THOSE PESKY LITTLE TROUBLES** that are always happening with other cars, are unknown to the Reo owner," says one Reo dealer, "and that's why the demand for Reos is so great."

**WHEN YOU STOP TO THINK** about it, the troubles you've had with other cars were not big troubles. Your motor didn't drop out of your car or your transmission strip or your frame break in two.

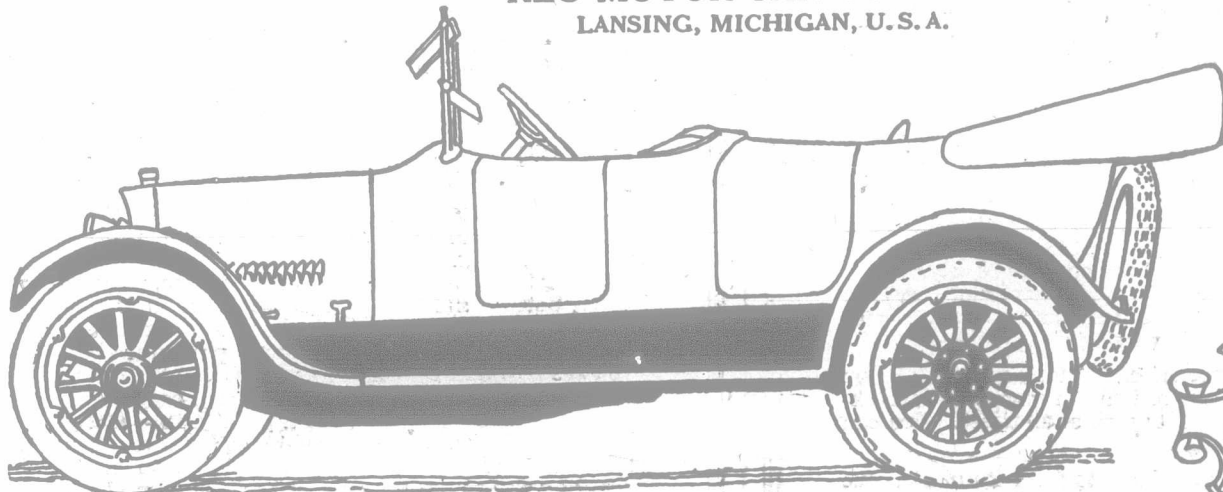
**IT WAS THE LITTLE THINGS** that pestered your motoring life—parts shaking loose or getting out of adjustment. Dust in bearings—oil leaks—everywhere. Squeaks and creaks and rattles. Always the dread when starting out that you might not return. Always the fear when in a hurry that some pesky little trouble resulting from some pesky little defect, of which you were cognizant, might delay you. Wasn't there?

**WELL THEREIN LIES** the big difference between Reos and other cars—the big difference is in attention to the little things.

**IT IS NOT UNCOMMON**—in fact—it is the rule—for a new Reo owner to drive his car thousands of miles—a year, two years—without even seeing the inside of a garage or lifting the bonnet to make an adjustment or repair.

**HONOUR AND FAITH** and a Good Intent—these and the attention to little things they dictate—result in Reo Reliability as it is known the world over, "The Gold Standard of Values" in automobiles and motor trucks.

**REO MOTOR CAR COMPANY**  
LANSING, MICHIGAN, U. S. A.

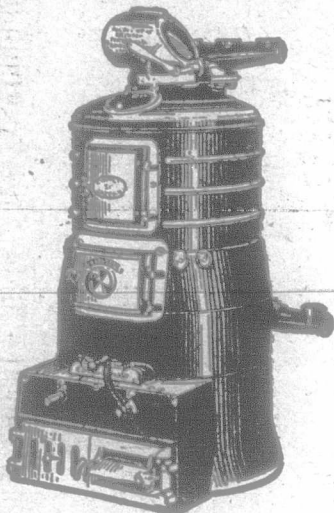


The New 7-passenger Reo Six Touring Car, \$1600, duty paid, f. o. b. Lansing, Michigan.



# Is Your Home Anything Like This? Or are You Planning to Build One Like It?

**N**O matter how fiercely bleak winter rages, this house is bound to be comfortable, because the plans call for Gurney-Oxford Hot Water Heating. This is the comfort-yielding, blizzard-defying warmth that fills the whole house with a "homey" June-like atmosphere—healthful because the moisture is not burnt out of the air as with old-style heating.



The Gurney-Oxford Hot Water Boiler

Generally put in the cellar. Only one place in the house to carry fuel to and ashes away from. Needs fuel, from 1 to 3 times only, in 24 hours, depending on the cold. Scientific, yet as simple as a plow.

## Gurney-Oxford Hot Water Heating

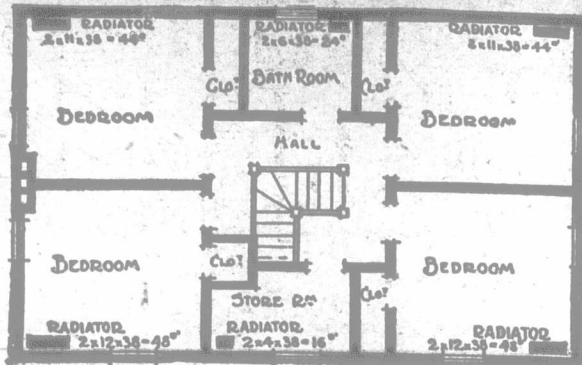
unfailingly sends an ample, gentle, healthful volume of warmth to every room, hall-way or corner. Just one fire is needed—in the Boiler—and it sends the water circulating constantly through all the piping and radiators.

If more heat is needed to meet the cold, the faster will be the flow. It is entirely independent of any water system. A few buckets of water in the pipes and radiators are all that is needed for the winter. Use either coal or wood as you select. The Gurney-Oxford "Economizer" is a wonderful, patented system of draft control which makes the boiler almost self-managing.

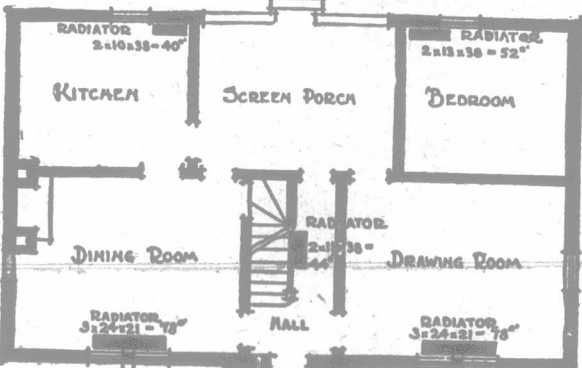
### HOW ABOUT THE COST?

Depends on the size of the house. Any house can be equipped, new or old. For a house like the plans shown here, with 516 feet of radiation the cost for Gurney-Oxford Boiler, pipes, radiators, valves, fittings, etc., will be \$350.00 F. O. B. Toronto, bought of any competent fitter. Labor and freight will be moderate extras.

The wonderful comfort, the method of operation and installation of the Gurney-Oxford Hot Water System are fully explained and illustrated in our new booklet "City Comfort for Country Homes," which also shows letters and photos from many satisfied users. The book is free, you should have a copy to-day and make up your mind that your home is going to be comfortable next winter. Address:



No ice-cold bedrooms. Every room cosy and warm at 6 a.m. Get breakfast on the oil stove.



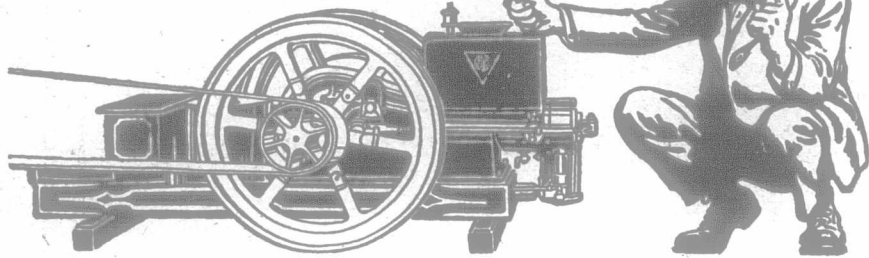
Be up-to-date. Be progressive. Make your home more valuable.

Your present home can easily be equipped.

## GURNEY FOUNDRY COMPANY, LIMITED

Dept. 23 476-534 King Street West, Toronto  
Also at Montreal, Hamilton, Winnipeg, Calgary, Vancouver

"I've seen a lot of engines but the ALPHA is in a class by itself"



**T**HE more a man knows about gas engines the stronger is his recommendation of the Alpha. Users of the Alpha who have had lots of engine experience will tell you that the Alpha gives them the most power for the fuel consumed, is the least troublesome to keep in good working order, costs the least for repairs, and that they can always rely on it to give them plenty of steady power when needed.

The fact that the Alpha is not affected by cold weather is one of its good points that is especially appreciated by Canadian users. The speed and fuel consumption of the Alpha are accurately regulated to all loads by the quickest acting and most sensitive governor ever used on a gas engine. There is no waste of fuel and the engine runs steadily under all loads—light, heavy or varying.

The Alpha has no troublesome batteries. It starts and operates on a simple low speed magneto. The entire ignition system is remarkably simple and assures you of a hot, fat spark at all times. You can use either gasoline or kerosene for fuel.

The strong recommendation the Alpha gets from its users is the result of features that you can readily appreciate when you see the engine or the illustrations and descriptions in our large catalogue. Send for a copy of this catalogue at once. Read it carefully and you will agree with Alpha users that this engine is in a class by itself, and gives you the most for your money.

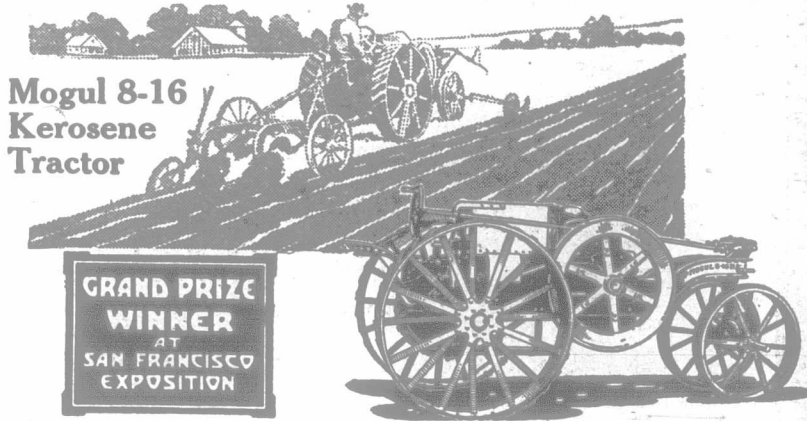
Alpha Engines are made in eleven sizes—2 to 28 H.P. Each furnished in stationary, semi-portable, or portable style, with hopper or tank cooled cylinder.

### DE LAVAL DAIRY SUPPLY CO., Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole distributors in Canada of the famous De Laval Cream Separators. Manufacturers of Ideal Green Feed Silos. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER

## Make the Change Now



Mogul 8-16 Kerosene Tractor

**T**HESE are the days of heavy horse power expense. The horses are idle. Hay and oats are worth so much it's a shame to use them for feed. It takes five acres of land to raise enough to feed one horse one year. Horses are at the top of the market, with prices higher than for years past. The market for horses is so good that, even at these higher prices, they are easy to sell. What better time could there be to consider replacing some of your horses with a Mogul 8-16 kerosene tractor?

You can use a Mogul 8-16 with profit for about all the work you are now doing with horses—the tractor does it better and cheaper. It takes less of your time to care for it. It increases the amount of land you make a profit from—five acres for every horse it replaces. It is the right size for most of your belt work. It burns any fuel oil—kerosene, naphtha, benzine, motor spirits, enabling you to use the cheapest fuel you can buy.

Why not plan to sell some of your horses now and save the winter feeding? Mogul 8-16 will take their place and do your spring work in time. Write today for our 100-page book "Tractor Power vs. Horse Power," which we will send promptly if you'll only ask for it. Write us at the nearest branch house.



### International Harvester Company of Canada, Ltd.

BRANCH HOUSES

At Brandon, Calgary, Edmonton, Estevan, Hamilton, Lethbridge, London, Montreal, N. Battleford, Ottawa, Quebec, Regina, Saskatoon, St. John, Winnipeg, Yorkton



When Writing Please Mention this Paper

# The Farmer's Advocate and Home Magazine

PERSEVERE  
AND  
SUCCEED

ESTABLISHED  
1856

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LI.

LONDON, ONTARIO, OCTOBER 19, 1916.

1256

## EDITORIAL.

Fences carelessly riddled in the fall must be repaired in the spring.

Pig breeding always suffers when grain is high in price. Save the brood sows.

Now is a good time to buy a choice steer. It is never a good time to purchase a scrub.

It will be a "lean" winter for some of the live stock on farms where there is no corn.

That door hanging by one hinge would give better service if a few screws were put in the other.

What a man will do to get into parliament, and once there what will he not do to stay there!

The fall drive is on. Hasten the work to completion before Jack Frost closes this season's campaign.

It would be foolish for breeders of all the dairy breeds to promote a claim that they have the real dual-purpose cow.

Fall plowing is a great appetizer. Who can eat with greater relish and sleep a sounder and more refreshing sleep than the plowboy?

No one outside the farming population seems to think that it costs the farmer more to farm to-day than it did twenty years ago.

There is no doubt about the final outcome of the war but more men are needed to take the rest of the "punch" out of the Teutons.

An expert has estimated that a farm housewife in the ordinary course of a day's work lifts one ton of water. Now will you put in a water supply for your wife?

Canada's wool clip is worth considerable money annually. It would bring still more if all were sold under the system or systems outlined in a lengthy article in this issue.

Have you swept the summer cobwebs from the walls and ceiling of the stable? After getting them down give the old stable a coat of whitewash to which is added a little disinfectant.

One of the best features of a county small fair we have seen this year was the special exhibit competition put on by Junior Farmers residing in different townships of the county. Fair Boards would do well to promote this work by offering substantial prizes.

Some of the crudest games of chance, ring and ball fakes, are assembled at the county fairs and yet the fakir gets many hard-earned dimes. Surely there must be a lack of real amusement in rural districts, otherwise the fall fair fakir could not exist as such. Or it may be true that people like to be humbugged.

The greatest empire the world has ever seen has been built up by a policy of allowing the daughter nations to manage their own affairs. The happiest and most contented families are those where the boys and girls, when they reach manhood and womanhood, have something their own which they manage themselves. Too much central control is not the best thing for family or nation.

## A Dangerous Dual-Purpose Dream.

A few years ago, when certain breeders of Shorthorn cattle commenced to lay emphasis on milk production in the breed, breeders of the specialized dairy breeds, smiled a while and then emphatically proclaimed that there could be no such thing as a dual-purpose cow. Thinking breeders of Shorthorns recognized that it was a difficult task to breed up and establish the dual-purpose type, which if it means anything, should stand for meat and milk, both in fair amount and neither to excess. In Great Britain, considerable success has been attained. In Canada and America, may be found at the present time a considerable number of cows carrying fairly good Shorthorn type and a reasonable amount of mellow fleshing, which at the same time, produce in a single lactation period anywhere from 7,000 to 10,000 pounds of milk. Some go much higher, but the majority of these latter are bordering on the specialized dairy-cow type, and we have always held that the breeder of dual-purpose cattle was getting on dangerous ground when he shoved milk production beyond 10,000 pounds and he is much safer to average around 7,000 pounds. Our contentions are borne out by the appearance of the calves from many of these heavy producers.

But this is not what we started out to discuss. Previous to the time Shorthorn men began to boost milk in their breed, little or nothing was heard of the milking qualities of the Hereford, the Aberdeen-Angus or the Scotch Shorthorn, and no one took very seriously the man who boasted about the beef qualities of the Holstein, the Jersey, the Guernsey or the Ayrshire, although the last-named breed, being a hardy, rustling sort, produced some fairly good, light-weight steers. Everything is changed now. There are Holstein men who call their breed the real dual-purpose breed; there are Ayrshire men who see dual-purpose characteristics in their breed; and no doubt some Guernsey and Jersey breeders could be found to praise their respective breeds for their dual-purpose value. We have heard Hereford men talk about their cows being good milkers and Aberdeen-Angus breeders do likewise. There seems to be no good reason why breeders of the specialized dairy breeds which have been brought to the present high standard of perfection should attempt to lead themselves or others to believe that their breeds are dual-purpose cattle. It would be a mistake to make, or attempt to make, dual-purpose animals out of Holstein herds which will average upwards of 15,000 pounds of milk per animal per year. The same is true to a certain extent of Ayrshire cattle. The Jersey, small, economical and efficient, is essentially a butter cow. The Hereford is a great grazer, a good feeder, a maker of big gains, and essentially a beef animal. True, breeders may require their cows to give a fair amount of milk, but they should not emphasize the dual-purpose nature of the breed. The Aberdeen-Angus, winner of the strongest competition in the big tests, like Smithfield and Chicago International, is essentially and must remain a butcher's beast. The Scotch Shorthorn, a successful competitor on many occasions in the beef ring, must not be ruined by a dangerous infusion of strictly dairy-bred Shorthorn blood. There is a dual-purpose Shorthorn; there is also a danger of there being a dairy-bred Shorthorn, which has no place in view of the excellence of present-day specialized dairy breeds. Why run the risk of spoiling other breeds which are essentially milk breeds or beef breeds? Decade upon decade have passed in the bringing of the breeds to the present-day perfection. This work must not be thrown away. There is room for only one dual-purpose breed, and many believe there is little room for even one. The Shorthorn has the call on this place; other breeders for the good of their respective breeds should let it go at that.

## The Man Responsible.

We occasionally hear a man grumble that his land is poor and therefore he cannot make a success of his farming operations. From extensive observation we are inclined to believe that in the majority of cases small crops and poor returns are not the fault of the farm, but of the farmer. We have seen abandoned blow-sand farms so poor that they would scarcely grow twitch grass, mulleins, or milk-weed, converted from barren plains to fertile fields. The man who cropped them to death and was responsible for their disintegration into the blow-sand condition, finally decided that he had a poor farm, so poor in fact that it crowded him off. The other man saw possibilities in the land for when he dug into it, he noticed that it contained moisture even in the driest summer season. He knew also that his predecessor had cropped and cropped, taking away year after year and returning nothing. He started with rye as about the only thing that would grow on the sand and he plowed in the crop; he put what manure he could scrape together on the land, but relied chiefly on green manuring. In a season or two the land responded with a fine catch of red clover, and to-day thriving orchards blossom and bear on the former barren waste, and it is all due to the farmer not the farm.

We have seen a wet farm crowd its owner off and he complained that it was the fault of the farm. Another man came along, saw possibilities in the land which he picked up at a small price, bought it, and spent a few dollars per acre in tile drains. Now the farm is one of the best in the neighborhood. It always was, but it needed a farmer, who understood it and was willing to lay out a little money to make more money. Too often men are short-sighted, saving a dollar to put in the bank at three per cent. which properly invested in something to build up the farm might in a few years make them three dollars to bank instead of one. When you hear a man grumbling that it is the farm's fault because he has not made a success, or when you yourself are inclined to blame things on the land, remember that there are several chances in the farm's favor and that the man is likely most to blame.

## The Eight-Hour Day.

Across the border there has been, of late, considerable agitation re an eight-hour day, and railway men have succeeded in getting legislation to that effect so far as they are concerned, and now there is talk of a universal eight-hour day in that country. It is interesting to note that through the past decades the tendency, particularly in cities, has been towards shorter hours. Even the farmer does not work from daylight till dark in harvest time as he once did, although his hours are still long when chores and odds and ends are considered. The ten-hour day is practically universal on the farms in this country at the present time, but it would take considerable persuasive power to make the farmer believe that he would get more work done and greater efficiency from an eight-hour day than from the present ten-hour system. A universal eight-hour day seems a long way off and for the sake of the man on the land we hope that it is. We would like to see him get as short hours as possible, but in the rush of seeding, haying, harvesting, and fall work the eight-hour day, with the available labor supply, would be an impossibility.

Some city writers seem to think that because the necessities of life are rather high in price at the present time farmers have been lacking in leadership. Perhaps they have, but it pays them better, sometimes, to get a fair price for a smaller quantity of produce than to be forced to take a price so small that it leaves only a mere pittance of profit.

## The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

Published weekly by  
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JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"  
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### Taking it Out of the Land.

A tenant farmer in Ontario is very often looked upon as a poor farmer. Why? Largely because it has been the custom in the past in this old Province for the tenant to get as much out of the land as possible and put as little back as he could—a poor system for owner, tenant and the farm. Short-term leases have been largely responsible for this state of affairs. Leases for one year, two years or five years are too short. The tenant goes to the farm, which, mayhap is in good condition. He crops every field he can for the length of time of his lease and the last year puts the whole thing into cereal grain and leaves the place in poor condition for the next man, who operates on the same principle. We do not mean that all do this, for there are some good tenants. One of the best tenants we ever knew made the remark one day that he farmed his farm exactly the same as he would if he owned it. He paid a high rental, was always able to meet his rent at the appointed time, saved money and finally became the owner of a farm of his own. He rotated his crops, kept a large stock, fed all he grew on the place, returned a maximum amount of fertility to the soil, left the farm in better condition than he found it, had it rented on a ten-year lease and was a success. A neighboring farm was worked on the other principle of short-term leases, large acreage of cereal crop, grain sold to meet the rent and other expenses, little stock was kept, a minimum of plant food was returned to the soil and the farm in ten years went down and down, the rent had to be lowered, the tenant made only a living, the landlord lost money, the farm suffered and the community was injured thereby. Everyone loses through a tenant working on the policy of taking all he can get out of the land. He really gets much less than he would by working the land well and systematically. It is always short-sighted policy for tenant or owner to mine the soil.

We recently attended a fall fair where all the cattle on exhibition ran loose in a field. They were judged, or guessed at, all running together. Of what educational value is such a practice? It is the Directors' place to make rules and see that they are carried out. One of these rules should be that all cattle are halter-

### The Trouble With Co-operation in Canada.

Co-operation is a word that has been much used and almost "ridden to death" by journalists and public speakers in Canada, but they should be excused on the grounds that a wrong existed and they selected this movement as a remedy for the ailment. It has been easy enough to prescribe, but the patient, like a small boy, has often poured the physic into the sewer, and got along just the same. A disagreeable taste is the most common objection to medicine, and, figuratively speaking, co-operation has had a bad taste to many Canadian people who have tried it. The system of getting together has done a remarkable amount of good, and in many lines it is a wonderful factor at the present time. Both East and West it is bringing the grower more for his product, and supplying him with the necessaries of life and occupation at a reduced price. In spite of that, from one end of Canada to the other, one will find members of the different associations who are dissatisfied and who are disrupting the local institutions that have been built up to alleviate some unfavorable conditions in the community. Co-operation, both on a large and small scale, has proved a success in many cases; why is it not universally so?

In the first place the spirit of the Canadian people does not correspond with what has long been preached as the true attributes of a successful co-operator. We need not repeat these attributes here. Suffice it to say that when co-operation is advanced as anything but a purely commercial proposition, intended to bring about more favorable prices and needed reforms of a mercantile character, it is not receiving a fair show in this country. The people of Canada are independent in life and manners, and they do not care to divulge family secrets that a few more dollars may result thereby. When they enter into an agreement they wish to know the extent of their obligations and their probable revenues. "Unlimited liability" will never become popular here, but it does appear to be the fullest expression of true co-operation. Farmers in this country will invest their good will, patronage, and so many dollars, nevertheless they will not sell themselves to the movement or make co-operation a pseudo-religion with them or accept it as a new god.

The staff, and the salaries paid them, are often the cause of much trouble. Members fail to realize that without an efficient manager the organization is doomed from the beginning. A more capable man is required for a co-operative association than for a private business of the same magnitude. Available men with business acumen must be paid well for they are in a position to command a good salary anywhere. When a manager is receiving anything like a fair wage from a co-operative enterprise, the members too often feel that money is being spent extravagantly. A small association cannot afford to hire the proper kind of a manager, and they experience difficulty from the first. What it costs to sell a barrel of apples, a pound of wool, a bushel of wheat, or any unit from the farm is one factor to consider; another, is what the unit sells for. If the net proceeds are in excess of what might have been obtained without the organization it matters not if the manager is receiving five or ten thousand dollars per year, for the member is still ahead of the game.

Once in a while factions arise in the association and a certain clique get control. This is disastrous to the movement. A member of one of the largest co-operative associations in the country recently said to the writer: "The average grower is no better qualified to select a manager for his business than he is to select the markets to which he should cater." This is significant. A few can often influence the many and have the wrong man appointed.

Then with regard to price. Members frequently compare their average receipts with the returns to some outstanding man in the community, or, more correctly speaking, the comparison is made and brought to the members' attention. The reason for this practice is obvious; someone desires to stir up strife and dissatisfaction within the ranks. They have an easy field to till, for the average co-operator is usually more or less suspicious of undue profits on the part of someone on the inside. These suspicions are not always groundless, perhaps, but the books of every co-operative company should be audited by some disinterested person, and the whole matter

washed let it be cleansed and cleansed thoroughly by the members themselves. A reliable auditor would do much to inspire confidence, and prevent a small error growing into something sufficiently formidable to wreck the organization.

With further regard to prices one must consider conditions prior to the inception of the association. Sometimes a co-operative movement in a community will do as much or more for the independent producer as it does for a member. The standard of quality is often improved, new markets are exploited, congestion averted, and, on the whole, a relieved state of affairs is brought about. Any improvement in transportation facilities or conveniences which can be credited to the association is also there for the non-member to enjoy. Furthermore, the independent grower is frequently paid a higher price for his product than the co-operative member receives in order to create a feeling. The purpose of this is easy to comprehend, and it is one of the most effective weapons employed by the enemies of the co-operative movement. The broad-minded man will ignore rumors and hearsay; they are usually started rolling for a purpose. If a grower prefers to remain outside an organization of this kind it will do him no good, but probably harm, to put obstacles in the way of its success. There are pitfalls being prepared all the time. Help the thing along, "don't knock."

Co-operation in Canada is right primarily, the trouble is with the people who too often abuse it.

### Too Much Work!

Farmers are too often little more than day laborers. They work so hard for long hours each day that they have little time or inclination to plan a system of management for their farms. They do too much work and not enough thinking. True it is that labor is scarce, and work must be done, but it is possible on most places to lighten the labor considerably by planning it better. The majority of Ontario farms, particularly since the war began, are one-man farms, and the farmer must keep "slugging" away from early morning till late at night in order to keep the place running, the chores done, crops harvested, and to manage any preparation for next season's crop. It takes considerable country spirit and pride in the ownership of land with good stock, to live down the lure of the town or city with its shorter hours and more leisure. It will take much talk on the part of city people to convince farmers that, under present conditions, there is not too much work on the farm. Farming, properly carried on, is a business, and it requires ability and energy to make it the success which every ambitious farmer desires to make it. No manager of a city enterprise is called upon to work with his hands all the time. The man at the helm of big business does his most valuable work with his head. In no uncertain measure the same should be true of the farmer. We do not mean by this that the farmer should do no work with his hands, because under conditions as they will obtain in Canada for some time, it will be necessary that the farmer work as well as think. But he should have enough leisure time to lay and carry out plans. There should not be so much work, work, work in the business of owning and operating a farm to tie the owner up for fifteen or sixteen hours every day in the year with the exception of Sundays, and for five or six hours on each of these. The most successful farmers are not always those who slave and serve all their lives, but are very often found among those who exercise a certain amount of the trading instinct, buying here and selling there to advantage, and using a certain amount of their leisure time in planning the farm work, believing it good policy to pay someone else a liberal wage to do a great deal of this work, releasing the owner and manager to carry on the straight business of the farm. No one can blame the farmer and his wife, growing older on the farm, if they both yearn for a less strenuous life, retired in the near-by town, and yet we have seen so many leave the farm and move to town and ever after be dissatisfied, wishing themselves back on the land. After all, there is, for the man who has lived his many years on the farm, a certain something in farming which gives him greater pleasure than he can find elsewhere, although it may be that it is necessary for him to try the town or city in order to be convinced. Yes, the average farmer has altogether too much work to do himself to be the manager which his business calls upon him to be, but there seems to be no remedy

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### Nature's Diary.

A. B. KLUGH, M. A.

There is no group of insects which has, since time immemorial, aroused more interest in the human mind than the ants. This is due, not to bright coloration, or to any musical ability, or to the structure or activities of the individuals as such, but to the activities of the complex colonies in which these insects live, and in which man sees a form of society much akin to his own. This resemblance cannot be superficial, but must depend on a high degree of adaptability and plasticity common to man and these social insects, for in order to live in permanent commonwealths, an organism must not be only remarkably adaptive to changes in its environment, but must also have a strong feeling of co-operation and forbearance towards the other members of its community.

There is a striking parallelism between the development of human and ant societies. Anthropologists distinguish in the development of human societies six different stages, designated as the hunting, pastoral, agricultural, commercial, industrial, and intellectual. The ants show stages corresponding to the first three of these. As Lubbock says: "Whether there are differences in advancement within the same species or not, there are certainly considerable differences between the different species, and one may almost fancy that we can trace stages corresponding to the principal steps in the history of human development. I do not refer to the slave-making ants, which represent an abnormal, or perhaps only a temporary state of things, for slavery seems to tend in ants as in men, to the degradation of those by whom it is adopted, and it is not impossible that the slave-making species will eventually find themselves unable to compete with those which are more self-dependent, and have reached a higher plane of civilization. But putting these slave-making ants on one side, we find in the different species of ants, different conditions of life, curiously answering to the earlier stages of human progress. For instance, some species, such as *Formica fusca*, live principally on the produce of the chase, for though they feed partially on the honey-dew of Aphids, they have not domesticated these insects. These ants probably retain the habits once common to all ants. They resemble the lower races of men, who subsist mainly by hunting. Like them they frequent woods and wilds, live in comparatively small communities, as the instincts of collective action are but little developed among them. They hunt singly, and their battles are single combats. Such species as *Lasius flavus*, represent a distinctly higher type of social life; they show more skill in architecture, may literally be said to have domesticated certain species of Aphids, and may be compared to the pastoral stage of human progress—to the races which live on the products of their flocks and herds. Their communities are more numerous; they act much more in concert; their battles are not mere single combats, but they know how to act in combination. I am disposed to hazard the conjecture that they will gradually exterminate the mere hunting species, just as savages disappear before more advanced races. Lastly, the agricultural nations may be compared with the harvesting ants."

Ants are to be found everywhere, from the Arctic regions to the tropics, from timberline on the loftiest mountains to the shifting sands of the dunes and seashores, and from the dampest forests to the driest deserts. Not only do they outnumber in individuals all other terrestrial animals, but the number of colonies in a comparatively small area is often very great. Their colonies are, moreover, remarkably stable, sometimes outlasting a generation of men. Such stability is, of course, due to the longevity of the individual ants, since worker ants are known to live for four to seven years, and queens from thirteen to fifteen years.

Considered as a group, economically, ants are both beneficial and harmful. Their greatest usefulness lies in a direction which is, like many of the things which act very gradually but continuously, usually overlooked,—the demolishing of dead organic material. Of the millions of insects which are born annually many are undoubtedly consumed by insectivorous vertebrates, but a vast number survive to die a natural death and fall to the earth. These are the natural food of most ants. Forel observed that a large colony of ants brought in 28 dead insects per minute, and estimated that they would bring in 100,000 daily during the hours of their greatest activity. Their other useful activity is their work in the soil in the excavation of their nests. Most species, especially in temperate latitudes, nest in the ground, and many of them in so doing are obliged to grind up and bring to the surface, often from a depth of several feet, considerable quantities of subsoil. This is spread over the surface, and exposed to the sun and atmosphere. Their burrows, moreover, quickly conduct air into the deeper recesses of the soil. Ants are mainly injurious by their fostering of Aphides, Scale-insects and Tree-hoppers, insects which are most injurious to crops; and by taking up their residence in houses and either partially destroying the woodwork thereof, or becoming pests because of their pilfering habits.

The eight-hour day would scarcely prove popular

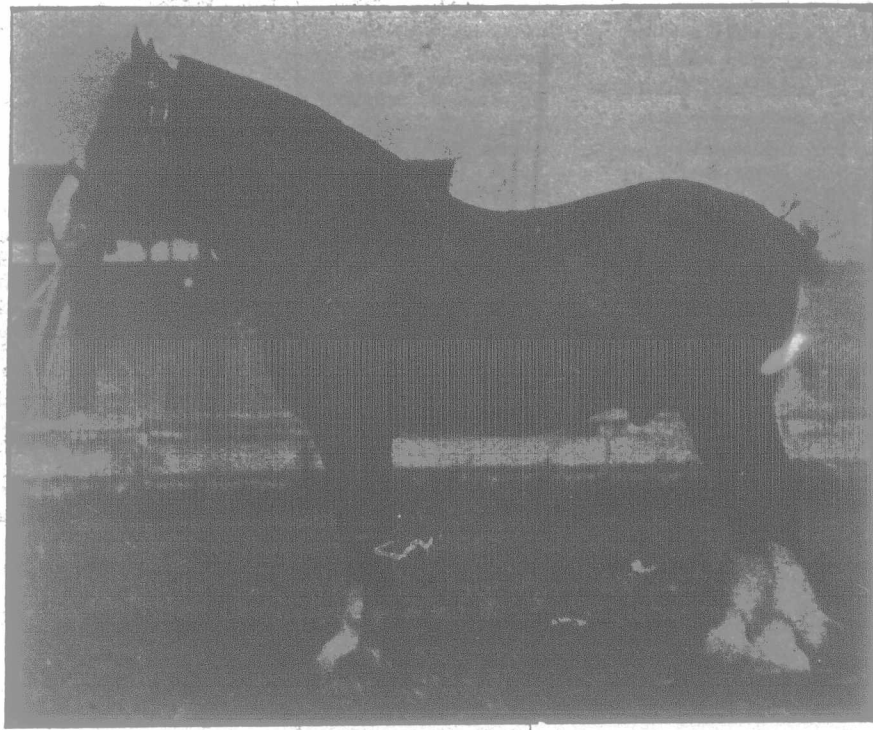
## THE HORSE.

### When Mare and Foal are Separated.

An interesting article by "T. B. G." giving details in foal weaning recently appeared in "The Farmer and Stockbreeder." We reproduce it for the benefit of our readers.

In weaning foals the first thing is to find a good airy loose-box with plenty of room, and secure fastenings to the doors. Here the foals must be shut up out of hearing of the mares for a week, and may then be let out into a well-fenced paddock in which there is a good bite of grass. Foals should always be weaned in lots of two or three together, and anyone with a single foal is well advised to buy another for company or sell it. A foal weaned by itself is always miserable, discontented, and eats his feed badly. When turned out of doors it is certain to break out unless put with other horses, in which case he stands a poor chance of getting any grain. When foals are shut up they should have some green stuff cut for them—clover, alfalfa, or something of the kind—and be given plenty of crushed oats, bran, and chaff, with a tub or trough kept full of fresh drinking-water.

They are usually very agitated for a few days, especially if they have been suckled on idle mares and never been parted from their dams, and are consequently hot and thirsty; but foals on working mares that have been accustomed to being shut up, very soon settle down. The mares must be taken right away, so that they and the foals cannot hear one another; and if shut in a yard nights and gently worked in the daytime and fed on dry food they will soon forget the foals, and the milk will dry up after one or two drawings of the udder.



Dunnottar (imp.)

Champion Clydesdale stallion at Ottawa for B. Rothwell, Ottawa, Ont.

The sooner foals are weaned in autumn the better if the mares have to go to work, and unless the foals are intended for sale, in which case it may be advisable to let them remain on the mares up to the time of sale; but when a foal is from four to five months old it will do as well off the dam as on, provided it is fed on the right kinds of food. Where mares have to take their part at the farm work, it is better to wean the foals before harvest, if they were born in March or April, than to let them agitate after the mares from morning till night and suck overheated milk.

Provided the foals are well looked after and given plenty of crushed oats, with a little bran and chaff, and the run of a good pasture, they will not miss the milk. The writer weaned some early foals some time ago before commencing harvest, and they look every bit as well as they did before weaning—indeed as well as those which are still suckling. Allowing foals to remain on the mares until late autumn is of no benefit to them, and the dams get into a low, weak state, from which they do not recover till spring. It is especially detrimental to mares that are in foal again.

Foals should get a liberal allowance of grain right through the winter months till the grass comes the following spring. They should always be taught to eat grain in the early stages of their existence, so that when weaning time comes there is no difficulty in getting them on to it. If they have never tasted any grain they may be three or four days before they will touch it when shut up for weaning, and they soon begin to lose condition. There is no better feed for foals than crushed oats, and these should be mixed with a little bran and some good, sweet chaff, but not much of the latter until they get older. The quantity given should not be stinted. A couple of strong, heavy foals will eat a peck a day each of corn if given to them, but half that quantity will be sufficient to start with, and as hard weather comes on the quantity should

bran and some hay must not be forgotten in bad weather. The growth of a horse depends to a very great extent on the treatment he receives during the first winter of his life, and if a foal is stinted and starved during his first winter he does not make up the lost ground until he is five or six years old. Good feeding and shelter of some kind in rough weather are essential to enable them to withstand the rigors of winter and come through it robust and blooming.

Rock salt should be placed in the paddock for the foals to lick, and a keen look-out should be kept for the presence of worms. If a foal looks harsh and staring in the coat, with a pendulous belly, and gradually loses flesh, with perhaps a touch of scour sometimes, then worms are almost certain to be present, and the dung should be examined. If worms are present, a dose of physic should be given to expel them. Ten to fifteen grains of calomel in a bran mash, given two or three times at intervals of twelve hours or so, followed up by a dose of linseed oil, is a very effectual remedy. Worms, however, seldom, if ever, attack a healthy, thrifty foal which is getting plenty of good food.

Then there is the question of shelter during cold and wet weather. Neither weaning foals nor young horses of any description require coddling, but in cold, rainy weather, a shelter for them to run in is a great help. Many hundreds of colts, in Britain, are wintered without any shelter at all other than such shelter as they get from a tall, thick hedge. So long as the weather is dry, no matter how cold it may be, they will take no harm; but cold, wet weather they feel, and many a good youngster has died as the result of a chill and inflammation through undue exposure which might have been avoided had there been shelter of some kind provided.

It is often said, and with some degree of truth, that if a foal is well-looking after during the first winter he will look after himself afterwards. Certainly two and three-year-old colts will live on pretty rough fare during the greater part of the year, but in winter time they require a certain allowance of grain. Weaning foals should on no account be run with older horses, or they will never get a chance at the grain, and when several foals are run together there should be plenty of trough room, for some are very masterful and greedy, and will drive the weaker ones away if they can. Another point to be attended to is the foot.

On soft, spongy, or low-lying land the hoofs soon grow long and irregular in shape, and the blacksmith should have a turn round them periodically and keep them in proper trim. Young horses need a little care and attention just as much as other young animals on the farm, but it is often the custom to make them live on pastures and under conditions that would prove disastrous to other animals. They certainly will "rough" it better than any other class of stock, but the better they are treated in their youth the sooner will they grow into money and be able to take their part in the work of the farm if required.

## LIVE STOCK.

### Notice to Live-Stock Breeders.

We wish to advise our live-stock advertisers and live-stock breeders generally that we have engaged L. E. Franklin as our live-stock advertising solicitor to succeed Dr. H. Vanzant, and that Mr. Franklin started on his new work with us October 1. We bespeak for Mr. Franklin a cordial reception and ask your favorable consideration of increasing your business through taking larger space in "The Farmer's Advocate," the paper which brings results.

### Green Feed for All Seasons.

Live-stock farmers frequently fall down in the preparations they make to carry their animals through periods of drouth in the late summer and fall. Throughout Eastern Canada, this year, the fall pastures have been poor indeed, and many herds show the effects of inadequate nutrition. While the hay crop has been large, heavy inroads will be made into it to maintain the live stock, thus depleting the stores that should be held over for winter when it will be needed, particularly in Ontario, on account of the small crop of spring grains and silage corn. We cannot tell six months ahead what conditions we shall be obliged to meet, but a safe practice

Farmers in this country do not appreciate the value of good pastures and plenty of roots. It is a lesson they should have learned long ago from the Old Country breeders, who have supplied the world with a great majority of the breeding stock used in the improvement of our herds. The fertile meadows and the large acreage of roots are two factors that help to produce the big, sappy animals, and these are strong features in the husbandry of Great Britain. Canadians do not pay sufficient attention to their pastures.

Throughout the Maritime Provinces this year the writer noticed considerable area devoted to white

turnips. In some instances these were sown to supply the military camps with an early vegetable, while in other cases they were planted for the stock. After the purple-top turnips became fit for use the market demand for the white kinds declined, and what remained in the ground were fed. In some instances we observed the cattle coming to the stable at night to enjoy a repast of these white turnips and they seemed to enjoy them. They supplied that succulency which was usually lacking in the permanent pasture, and they provided some feed constituents as well. A small field of this crop would be profitable almost any year, for they grow rapidly and are not exceeding-

ly difficult to keep clean. When a small variety is grown, and a thick stand obtained they will keep well on to the last of December and help to conserve the silage and winter roots. We would not recommend the extensive culture of white turnips, but we believe a small patch would be profitable. Something of this nature to feed either in the stable or in the field will certainly show results. Generally speaking, our live stock does not receive ample succulent feed during the early fall, and this is particularly true of this season. Some form of green feed should be produced in larger quantities if we are to make the most of our live stock.

## The Work of the Co-operative Wool-Marketing System.

While co-operation has not come up to expectations in some fields it has certainly been a good servant to the sheepmen of Canada. It has not been very long since the co-operative method of grading and marketing wool was first tried, but the results were so pleasing that the system has rapidly gained in favor, and in 1916 over 400 tons of wool were assembled, graded, properly packed, and marketed to the best advantage. At seven pounds to the fleece, this would represent the clip from approximately 115,000 sheep in the Provinces of Alberta, Saskatchewan, Manitoba, Quebec and Nova Scotia. What might have been done in a small way in other provinces we have not taken into consideration. This movement, so far as it is explained in this article, and it covers the field very fully, is one of the biggest things that has occurred in recent years to encourage the raising of sheep and to assist the farmers in obtaining fair value for their product. To many sheepmen "wool is wool." They care not whether it is long or short, fine or coarse, full of sand or free from dirt, tied with sisal cord and packed in jute sacks that will impair its dyeing properties, or put up in a way that its value will not be depreciated. They care not whether it is black, grey or white; "wool is wool" and should be worth the same price anywhere and everywhere. The grading system, along with the instruction and information that accompany it, has done much to dispel this erroneous idea and to demonstrate the differences in grades and qualities that result from the difference in breeds, and the way the wool is cared for. Before the wool is converted into the many products for which it is used it must be scoured. In this process all the alien matter is disposed of and the pure wool remains. When a quantity of wool is purchased it is valued not by the pounds in the crude form but by the amount of scoured wool there will likely be when it is freed from all foreign substances. Range sheep frequently give a clip that contains a heavy percentage of soil particles as well as parts of weeds or grasses. The farm wool is usually cleaner if it is cared for properly, and this accounts for a considerable difference in price.

Some members of the associations might not have been thoroughly pleased with the prices they received, perhaps they expected too much. However, the grade into which their contribution was classified will probably throw some light on the latter and reveal a way by which the product can be improved and thus command more per pound. Another phase of the subject arises here. Without the existence of the association or co-operative enterprise how much would the wool have brought? Too many fail to consider this feature of the work, and therefore do not appreciate the good done the sheep industry by this method of getting together in the wool selling business.

### Selling Alberta Wool.

BY E. L. RICHARDSON.

The Alberta Sheep Breeders' Association have now held three co-operative wool sales. A comparison of the quality of wool sold is as follows:

Years	No. of Sellers	No. of Fleeces	Carloads.	Value.	Average price per lb.
1914	21	2,500	3/4	\$ 3,192.19	19c.
1915	88	14,500	5	26,837.61	27.77c.
1916	335	42,489	13	83,867.00	29.9c.

This is certainly a most satisfactory growth. The prices received this year for wool of the various grades were as follows:

- Fine combing, 28 1/2 cents.
- " clothing, 18 1/2 cents.
- " medium combing, firsts, 33 1/2 cents.
- " medium clothing, firsts, 27 1/2 cents.
- " medium combing, seconds, 29 cents.
- " medium clothing, seconds, 27 1/2 cents.
- Medium combing, firsts, 35 cents.
- " clothing, firsts, 28 1/2 cents.
- " combings, seconds, 31 cents.
- " clothing, seconds, 28 1/2 cents.
- Low medium combing, 30 1/2 cents.
- Low medium clothing, 30 1/2 cents.
- Coarse, 30 cents.
- Lustre, 30 cents.
- Rejects, 27 cents.
- Gray and black, 26 cents.
- Locks and pieces, 22 cents.
- Tags, 12 cents.
- Dead wool, 15 cents.

The inauguration and success of these sales were made possible by the assistance given by the Provincial Government towards the organization and maintenance of the Alberta Sheep Breeders' Association and through the initiative of the Dominion Live Stock Commissioner's Branch of the Dominion Department of Agriculture in placing wool in the hands of the disposal of the Association without charge. Officially grade the wool. The manner in which the services have been rendered by the Dominion Live Stock Branch has established confidence between the associations and the buyers which would have been difficult to establish without the official grading by the Dominion Government officials.

The Association issues a tabulated statement showing the quantity of each grade, and prices received by each individual, so that each member is able to see how his wool compares with his neighbor's. A number of the contributors on looking over the statement are anxious to obtain information as to how they can improve the quality of their wool, so they can increase their revenue.

Previous to the inauguration of these sales, the majority of the sheepmen had to depend on someone coming to their farms to buy their wool, and were practically compelled to accept whatever the individual would offer. These buyers did not feel it necessary to offer within two to ten cents a pound of what the wool was worth. We had instances last year of some sheepmen who sold through our Association receiving as high as thirty-two cents per pound for their wool, and their neighbor who had wool of equal quality selling privately for eighteen cents per pound, as

he did not hear of the co-operative methods of selling. The Association has undoubtedly made thousands of dollars for its members through the selling of wool, and has also assisted in establishing wool values so that the individual buyers who still travel from farm to farm are compelled to offer those who do not sell through the Association a much better price than they would have if the Association sales were not held.

The Association does not charge any commission for the sale of wool, but assesses the actual cost against each member according to the number of pounds he sends in. The cost of handling the wool this year was one cent per pound. This included the wages of the staff while the wool was being sorted, weighed and loaded on cars, insurance, printing, advertising and general office expenses, cost of bags and twine, in excess of amount we received for same, allowance for shrink, and weight of twine.

If the individual did not sell through the Association he would be debited with the same amount for shrink, as well as for cost of bags and twine, which would amount to from one-quarter to one-third of a cent a pound, so that the actual cost to the seller as a result of having his wool officially graded and sold co-operatively, is between two-thirds and three-quarters of a cent a pound.

### Co-operative Wool Marketing in Saskatchewan.

BY W. W. THOMSON.

Saskatchewan is generally recognized as the great grain-growing province of the Dominion; her fertile prairies have produced wheat and other grains in such abundance that in the Eastern mind, grain growing is almost the only agricultural activity associated with the West. It will, therefore, come as news to many that sheep raising has always received considerable attention, and that there are now upwards of 1,500 flocks in the Province, varying in size from the small farm flock to the ranch of ten thousand head. Statistics compiled by the Provincial Department of Agriculture show that there are 192,000 sheep in the Province.

Until the last three years the marketing of wool from these flocks presented quite a problem. The sheepmen are scattered in all parts of the Province, the only markets are in Eastern Canada or in the United States; few localities produce sufficient wool to make a car load, and as result the wool was shipped long distances in l. c. l. lots, paying high freight rates. The flock owners came from practically all parts of the civilized world and many had little experience in sheep raising. The breeding of the flocks was as varied as the districts from which the breeders came all kinds of wool were sold together, grading was unknown and so the poorest wool frequently sold as well as the best, naturally buyers were not inclined to pay high prices. In the fall of 1913 inquiries instituted by the then newly created Co-operative Organization Branch of the Provincial Department of Agriculture revealed the fact that, that year's clip had been sold for from 8 to 13 cents per pound, 10 cents being about the average price. In view of these conditions the Department decided that it was necessary to introduce a new system of marketing which would insure economic handling and under which each lot would be sold on its merits, so that the best wool would bring the best price and all of it a fair return.



Fourteen Carloads of Wool, Valued at \$83,867.43, Being Graded in the Horse Show Building, Calgary, Alta.

A list of the compiled, and e to each, annou tion Branch was marketing ager their wool in a the Branch. us using binder t and shipping i causes of the became mixed dye as wool d cloth could be way. To over took to supply jute sacks at its marketing the packing an who intimated through the l

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- Low medium
- Coarse
- Lustre
- Rejects
- Gray and black
- Locks and pie
- Tags
- Range
- Mohair

A list of the sheepmen in the Province was at once compiled, and early in March, 1914, a letter was mailed to each, announcing that the Co-operative Organization Branch was prepared to act without charge as a marketing agency for sheepmen who would prepare their wool in accordance with directions drawn up by the Branch. It has been found that the practice of using binder twine and other sisal cord in tying fleeces, and shipping in coarse, jute sacks was one of the chief causes of the low price received. The sisal fibres became mixed with the wool, but would not take the dye as wool did, with the result that only inferior cloth could be manufactured from wool handled in that way. To overcome this difficulty, the Branch undertook to supply paper fleece twine, and closely woven jute sacks at cost to those who would make use of its marketing facilities. The following is a copy of the packing and shipping instructions sent to persons who intimated that they would market their clip through the Branch.

**Packing and Shipping Instructions.**

1. Roll and tie the fleeces carefully.
  - (a) Removing all manure or paint-clotted locks.
  - (b) Rolling the fleece with the fresh side out.
  - (c) Tying each fleece by itself, with paper fleece twine.
2. Pack the fleeces in the sacks supplied, being careful to
  - (a) Include only dry wool in your consignment.
  - (b) Pack the fleeces from the ewes, wethers and bucks respectively, in separate sacks as far as possible. When it is necessary to pack two or three kinds of fleeces in one sack place sheets of strong paper between the different kinds.
  - (c) If two or more breeds of sheep are kept, pack the wool from each breed by itself, or when necessary pack in the one sack and separate with paper as above described.
  - (d) If you wish to forward the tags (manure or paint-clotted locks clipped from the fleeces) or black or brown fleeces, always place these in sacks by themselves.
  - (e) Pack the wool tightly into the sacks. A 40-inch by 90-inch sack should hold at least thirty fleeces.
3. Prepare for market by,
  - (a) Filling out two shipping labels for each sack, being careful to give name and address of shipper, name of breed from which wool is taken, also number, kind and net weight of fleeces.
  - (b) Placing one inside the sack and sewing the sack up, using strong, hard twine.
  - (c) Sewing the second shipping label securely to the side, not to the end of the sack.
4. Storing.
  - (a) Store the sacks where they will be kept dry until ready to ship.
5. Shipping.
  - (a) Forward the wool by freight, via the most direct route, to the Co-operative Organization Branch, Department of Agriculture, Regina, making the shipment between June 19 and July 1. No shipment should be forwarded later than July 1.
  - (b) Either prepay the freight to Regina, or forward the shipment freight, charges collect, and the Department will pay the freight and deduct the amount from your cheque when making final settlement.
  - (c) As soon as the shipment is made, forward the bill of lading at once by mail to the Co-operative Organization Branch.

In 1914 one hundred and eighty sheep owners prepared and forwarded their wool in accordance with the above directions. The entire consignment, amounting to 69,404 pounds was assembled in Regina, and sold at a flat price of 17 3/4 cents per pound. This, after paying local freight from the producers' stations to Regina and the cost of twine, sacks, storage, handling, etc., netted the producers an average price of 16 1/2 cents per pound. In 1915 the work was again carried on in practically the same way, and that year 306 sheepmen marketed a total of 148,339 pounds of wool through the Branch, obtaining a flat price of 25 cents per pound f.o.b. Regina.

In 1916 an arrangement was made with the Dominion Live Stock Branch whereby they undertook to provide expert graders to classify the wool, and the same instructions were issued to producers as in former years. This year 487 flock owners marketed their wool through the Branch, and the wool was sold by tender. The following is a summary showing the total weight of each grade handled and the price realized:

Grade	Pounds	Price per pound
Fine combing	6,623	33 cents
Fine clothing	10,896	29 "
Fine medium combing, firsts	11,883	36 "
Fine medium clothing, firsts	3,631	34 "
Fine medium combing, seconds	21,093	34 "
Fine medium clothing, seconds	8,080	32 "
Medium combing, firsts	21,288	37 "
Medium clothing, firsts	1,767	34 "
Medium combing, seconds	33,160	34 "
Medium clothing, seconds	4,088	31 "
Low medium combing	15,415	34 "
Coarse	3,574	32 "
Lustre	10,344	31 "
Rejects	14,160	24 "
Gray and blacks	1,519	28 "
Locks and pieces	914	24 "
Tags	2,758	11 "
Range	5,363	31 "
Mohair	145	20 "

Under the grading system, the cost of handling the wool was considerably higher, being practically one cent per pound, but this was to be expected as it was necessary to unpack all of the wool, grade each fleece and then repack it. It is, however, quite evident that the price obtained by grading more than offsets the additional expense. Naturally some parties have not been satisfied with the grading of their wool, the percentage of rejects was high, largely because many of the fleeces contained considerable quantities of straw and chaff, and consequently could not be placed in the grades to which they would otherwise have belonged. Evidently many sheepmen neglected to sweep up their shearing floors before commencing operations, but it is safe to say that this will not occur again and that next year there will be a much smaller proportion of rejects. From an educational standpoint the number of grades is rather confusing, and it would appear desirable that some more simple system should be devised, as it is practically impossible to explain to each producer the reason for placing his wool in the particular grade to which it belongs. In general it can, however, be stated that the sheepmen and those in charge of the marketing work are satisfied that the grading system is certainly the most equitable manner of handling the business, and that this year's results are highly satisfactory.

**Marketing Manitoba's Wool Crop.**

BY J. H. EVANS.

A new era in the production of wool in Manitoba has just begun. Co-efficient with increased production comes more efficient methods of marketing. Manitoba farmers have long since recognized the



The Wool Graders and Packers at Work.

principles of co-operation as the most sound, economic basis for successful trading in farm produce, and to-day our methods of marketing grain, while not perfect, are generally conceded to be an improvement on any other known method. It is not surprising to find the flockmasters adopting the co-operative grading system, as a solution for their wool-marketing problem. The old method of selling the wool crop locally on a flat basis was neither remunerative nor equitable, and had little or nothing in its favor. Supposing the sheep owner did possess a fairly accurate knowledge of the grade and market value of the wool he had to offer for sale, this would be of little practical assistance in demanding full market price at home, without a more or less open market for his wool. Assuming that one could cite isolated cases when the producer had received prices equal to those received through the co-operative wool marketing plan, it requires no stretch of the imagination to assume that the present prevailing prices would not be available in the absence of the co-operative scheme.

**Factors Determining Values.**

Western wools are disposed of in the unwashed condition. The buyer in purchasing wool in this condition pays for wool and dirt; the yard-stick by which the value of this wool is determined is its shrinkage. When the buyer estimates the value per pound of medium combing, medium clothing, lustre or fine medium combing, etc., he immediately estimates the shrinkage, and will appraise the value of the wool in question by comparison with scoured wool of a similar grade in the Eastern market. Granting that wool is worth 32 cents in Winnipeg, and assuming the shrinkage to be 60 per cent., this would represent a clean or scoured value of 80 cents per lb. Under normal conditions there is 20 per cent.

difference in shrinkage between the fine and coarse wools. Following this shrinkage, attention is paid to: Length and strength of staple, quality of fibre cleanliness, color.

The length and strength of staple largely determines the grade, the longer staples going into the combings, and the shorter into the clothing with the coarser samples grading coarse combing.

Rejects cover the dirty samples, chiefly straw and vegetable matter, whereas, seedy and dead represent a still inferior grade. Tags represent the lowest grade.

Quality in fibre or staple is very important, since it determines largely how the wool will stand combing. A weak spot in the fibre often results from the ill-health of the sheep at the time when that affected portion of the wool was growing.

White wools are very much more in demand than gray or black. The white wool is useful for both white goods and pale shades of dye, whereas, gray and black cannot be used for this purpose. As wool ages it is more difficult to scour, and seldom comes through the process as light in color. White color in the fleece does not altogether determine the color of the scoured wool. Wool should always be rolled flesh side out, since this exposes the best color, and our first impression is received through what is seen by the eye.

Damp wool soon turns yellow when packed, and if allowed to remain in this condition for too long a period the fibre becomes injured. In not a few cases the officials of the Department of Agriculture found it necessary to expose to the sun wool received for sale, in order to preserve its quality. Of course, there was a loss in weight.

Very often Western sheep feed on fallow land, and the fleece becomes laden with sand, and not infrequently alkali soil. While the latter may damage the fibre to some extent, it is nevertheless not injurious to color, and as a rule such wool will scour white. The same may be said of dry, harsh wool lacking in grease, but due to the absence of blood its value is impaired.

**Grading and Sorting.**

Grading means the placing together of fleeces of similar quality, whereas, sorting is the separating of the various qualities of wool often found in a fleece. Wools from the Down breeds are generally more uniform in quality throughout than fleeces from the long-wooled breeds, which occasionally show a tendency to coarseness. Speaking generally, wool immediately behind the shoulder is

longest, strongest in staple, and of the best quality, whereas, the coarsest part of the fleece is at the "britch." Sorting is almost entirely carried out by the manufacturers. They require uniformity of fibre and freedom from any tender or weak spots in the staple or fibre.

Owing to war conditions there is an abnormal demand for the coarser or combing wools, the clothing wools being somewhat less in demand, and used chiefly for making finer materials and broadcloth.

**Methods Followed.**

All sheep owners in the Province of Manitoba were supplied early in April with a circular, setting forth in detail the requirements in connection with the wool-marketing scheme. It was required that all wool be shipped, to the order of the Department of Agriculture, during the month of June. Owing to the wet weather in June, however, a great deal of the wool was not shipped until the middle of July. All fleeces had to be rolled and tied with paper twine and properly packed in wool sacks. Paper twine and wool sacks were supplied by the Department at cost. Any fleeces tied with binder twine were kept separate and graded among the rejects, since the binder twine will not take dye and spoils the woollen product.

Shipping tags were supplied in sufficient numbers to enable the shipper to attach one on the inside as well as on the outside of the bag, and thereby avoid any danger of wool being received unidentified. Freight was prepaid in the majority of cases.

The Dominion Department of Agriculture supplied an expert to perform the grading, a record of which was kept on forms supplied for the purpose, and known as "Domestic Wool Grading Sheets." Upon receipt of wool at warehouse, it was weighed in the

presence of both the official grader and a representative of the Provincial Department of Agriculture. The shipper was then notified and an advance payment made of 20 cents per pound, the balance being paid after wool was sold and full settlement received.

The wool was immediately graded and packed in wool sacks. On each sack the weight, grade and Dominion emblem were stenciled by the grader. The wool was open to inspection at all times, and large buyers all over the American Continent notified of the amount of wool offered for sale, average quality, and date when tenders would be received.

The expenses include printing, advertising, postage, draying, labor, insurance, loading and freight. After the sale was completed an estimate of these expenditures was arrived at and deducted from the price received for the wool.

Amount Sold.

This year we received in the neighborhood of 160,000 lbs. of wool, 154,000 lbs. of that amount being officially graded. The ungraded wool was sold locally for the best price available at that time.

Table listing wool grades and prices: Fine clothing, Fine medium combing, Fine medium clothing, Medium combing, Medium clothing, Low medium combing, Coarse, Lustre, Gray and black, Rejections, Seedy and dead, Locks and pieces, Tags, Mohair.

The balance required to make the total of 160,000 lbs. of wool represents the ungraded quantity sold by the Department.

One of the outstanding features in connection with the whole scheme is the number of small sheep owners who benefit by it. It is estimated that Manitoba has a thousand flockmasters and over half of their wool was marketed through our hands this season.

The Movement in Quebec.

The co-operative grading and marketing of wool in Quebec in 1916 was thoroughly explained in "The Farmer's Advocate," August 3, so it is unnecessary to discuss it at any length at this time.

Table showing Association, No. of members, and Average price per lb. for various Quebec associations like Pontiac, Compton, Richmond, etc.

In the classification, medium clothing, fine medium combing, and medium combing grades sold at 43 cents per pound; low medium combing at 42 cents, and coarse combing at 41 cents.

found in this quantity of wool. The percentage of the total will be found after each grade: medium clothing, 1.1; fine medium combing, .9; medium combing, 49.4; low medium combing, 34.5; coarse combing, 8.1; black and gray, 1.1; rejections, 5.

The wool clip alone coming through these nine associations in the Province of Quebec was cashed for \$71,092.70. Four cents per fleece was found sufficient to cover expenses, and the members received from 7 to 12 cents per pound above the local price.

A Start in Nova Scotia.

In the county of Antigonish, N. S., this year, the Representative of the local Department of Agriculture had about 16,500 pounds of wool assembled and graded. In Guysborough County about 2,000 pounds were handled in the same way, and the entire quantity was sold for 41 1/2 cents per pound, including rejects.

THE FARM.

Consider the Hens.

BY PETER MCARTHUR.

Somewhere in his ponderous and reverberating volumes Gibbon remarks that it is not necessary to study a large community in order to observe in operation all the principles of government. I do not remember exactly where to locate the sage and sonorous sentences in which the great historian and philosopher unburdened himself of this weighty thought but I have given you the substance without his sesquipedalian verbiage.

Now, being convinced that there are trusts, I want to know why we should not treat them as we do the hens—that is, take the eggs from their nests whenever we need them. We could leave them a nice nest-egg so that they would not change their nests, but we would take their profits for the public good.

When such schemes of taxation are suggested there is always an outcry about "confiscation" but

the prices we have to pay for some necessities amounts to a confiscation of our cash. It is time that these combinations were given a dose of their own medicine. Of course they would howl, from their slick legal departments to the last innocent investor, but it looks as if somebody would have to howl before the expenses of the war are met and it should not be the farmers and laboring men.

The Lure of the Auction Sale.

EDITOR "THE FARMER'S ADVOCATE":

This is the season when the auctioneer's hammer resounds throughout the land—the fall sales are on. The farmer who was kept so busy during the summer that he couldn't find time for a day off, will manage, somehow, to be present at neighbor Brown's sale.

However, I believe the modern auction has its proper place in the economy of things agricultural. Having been both a buyer and a seller I may claim some knowledge of the institution at both ends. Its chief claim for existence may be written down to the convenience afforded all parties concerned.

But, of course, the auction sale is not a one-sided affair. It often happens that the buyer is able to make a more satisfactory purchase at a sale ring; not that he is likely to get something for nothing, or anywhere near it—he rarely does that, but he knows the Donald Ban type and has occasionally been held up by the shrewd old Scotchman whose chief delight

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Make Good

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What of h for themse on the pay-ro none have rise boy who was spare time w spend it in id success comes Similar illustra town or city opportunities from mother There are man is as much he a large man returns or sa every, one can who are maki being slaves the average, valuable than prosperity abo family have tir ly. Many wo in farming th that he made ready to gras on old metho abreast of the and haven't p gether and ge the older we g of-date metho to the financi business man. All there i been learned. ing, crop gro every year.

is to get a "fall" out of a professional dealer, and in a lesser proportion out of any amateur who may care to match wits with him. The advertisement that carries the insertion, "to be sold without reserve," gives the buyer confidence and insures him that there will be no "bidding in." This the auctioneer, too, makes the most of. One doughty old colonel from the United States—all American auctioneers, by the way, appear to be colonels, majors or captains according to their individual preference—used to enlarge on the public-spiritedness of the owner whose object in selling was not the piling up of filthy lucre (he scorned the stuff), but rather to distribute, for a nominal sum, among his neighbors the high-quality stock that he had spent a life-time to build up.

When an animal was driven into the ring, something like the following monologue with the necessary variations would be forthcoming.

"Now then, gentlemen, we have here a sweet young thing—a perfect type of the dairy cow." She's a nine-year-old, announced the surprised owner mildly.

"Her dam is nine years old, Mr. A. tells me," went on the unperturbed colonel, "and is still a grand performer. This beauty is her fifth calf," then *sotto voce* to Mr. A., "why man, no cow is over five years when she gets into a sale-ring."

"You have looked her over gentlemen. Your intelligence, your knowledge of good stock, even instinct tells you that she is a better mint for manufacturing 'cart-wheels' than any Cobalt proposition you ever heard of. What am I offered then for this milk perambulator, this cream-gathering concern?"

"Thirty dollars," said a bystander cautiously. "Thirty dollars!" roared the colonel affecting a fine show of astonishment, "why not say thirty cents—you look it. A bid like that is a reflection on your knowledge of cowology."

Finally, by means of considerable urging, romancing and hot air the much flattered animal was knocked down for \$62.25 and Mr. A. looked pleased.

One feature of the public auction that I feel it a duty to question is that of settling for stock or articles bought with promissory notes, usually not due until the following fall. Doubtless it does have a tendency to boost the sale receipts—that is, if the owner is fortunate enough to receive it when the due date comes round. Do not infer from this that I question the honesty of anyone who may wish to buy stock by this method. An occasional crook will get away with his game, but I believe that such are exceptions to the rule. The weak spot in the system is that the neces-

sary payment is obscured by the length of time given. The buyer is not in position to pay cash at the time of sale, but hopes that he will be when his note matures. His intentions are good but they frequently serve to pave the way to future insolvency.

It has occurred to me when attending sales that one might often save considerable in buying different kinds of machinery, especially if partial to the belief that implement manufacturers are getting rich too quickly. I have seen the very best farm tools sold at fifty per cent. off the original price—good as new too. Of course you require to be some judge of what you are buying or get someone who is to help you out. The point is that you are required to invest only about one-half that new would cost, and practically all you lose is a little red paint anyway. For instance, I have seen a binder sell for \$60, that the year before cost the owner \$135 and other machinery and tools proportionately low, and all on twelve months' credit or six per cent. off for cash. In the case of a man who is just getting started at farming this is a snap. It lets him in easy and affords a means of retreat in event of cold feet. Later, if he decides that he is not gaited for farming he can resell at cost and sometimes even at a profit, that is, if he gets the right kind of an auctioneer. Elgin Co., Ont. AGRICOLA.

## Canada's Young Farmers and Future Leaders.

### Make Good use of Any Spare Time this Winter.

The majority of men are followers and grumble because of their position, always wondering why they are not leaders like so and so who attended school the same time as they did. Very often the fault is in themselves. Maybe they did not make good use of their time at school, or, as they grew to manhood were unwilling to start at the bottom of the ladder, and step by step ascend towards the top. Because they did not advance as fast as they thought they should they quit their job and started at something else. Thus, on through life they drifted from one job to another but mastered none. It requires a lot of perseverance and stick-to-itiveness to succeed in any one line of business. Farming is no exception. As there are leaders and followers in every commercial line so there are in farming communities. Some one or two persons are bigger and broader minded than the majority. However, it is the boy that masters the details of the work he is interested in that makes the leader.

In a certain city in Western Ontario there were a number of boys about the same age attending school between twenty and twenty-five years ago. One boy in particular was very much interested in his studies, and while he took a keen interest in all kinds of sport he would not allow play to monopolize all his spare time. Outside of his regular studies he read books and made a special study of certain things. Some of the boys thought him foolish to read and study more than was absolutely necessary in order to get through school. Others called him a "sissy" and other unpleasant names. However, time went on, and to-day this boy of yesterday is a man and is vice-president of a company that pays him a salary around fifteen thousand dollars a year. He commenced when a boy to gain a complete knowledge of a certain business, and now it is said that he is believed to be the best posted man on it that there is in the country, thence his value to the company.

What of his schoolmates? Some are in business for themselves and making a success of it. Others are on the pay-roll in shops, factories and stores, but none have risen so high in the business world as the boy who was master of himself and made good use of spare time when possibly the inclination was to spend it in idleness. This is one illustration of how success comes to those who prepare themselves for it. Similar illustrations could be cited, and not all with town or city boys either. The farm affords splendid opportunities for the boy who heeds the call to wrest from mother earth the treasures she has stored up. There are many farm problems yet unsolved, and there is as much honor in solving them as in controlling a large manufacturing business. True, the cash returns or salary may not be so large. However, every one can recall to mind the names of farmers who are making a success of their business without being slaves to it. Their crops are generally above the average, their stock looks better and is more valuable than that of their neighbors, there is an air of prosperity about the place, and the farmer and his family have time to take a day or two "off" occasionally. Many wonder why one man has greater success in farming than others. The reason very often is that he made a study of his work, and was ever ready to grasp new ideas that were an improvement on old methods and put them into practice. He kept abreast of the times. Too often we get into a rut and haven't gumption enough to pull ourselves together and get out of it. It very often happens that the older we get the deeper we sink in the rut of out-of-date methods. Keeping up-to-date is as essential to the financial success of the farmer as it is of the business man.

All there is to know about farming has not yet been learned. There are new problems in stock breeding, crop growing, and farm management arising every year. The young men who train themselves

to observe closely the changes that are taking place and govern themselves accordingly will receive their reward. During the winter, work is not so rushing as at other times of the year, and there are usually many spare moments. The success of every man depends a good deal on how the spare time is spent when a boy. This is not meant to give the impression that there should be no play or recreation, and that every minute that is not occupied with work should be spent in study or reading. Recreation is necessary, but it is also possible to devote a definite time each day to the study of some special subject, without in anyway interfering with the regular work and play. While a study should be made of the work one is engaged in, it is not wise to give all the time to gaining a knowledge along one line. Master one subject, but endeavor to gain a working knowledge of others in order to broaden the mind and give a larger conception of what is doing in the world. The country boy and young man has as good, if not better, opportunity to do things than has his city cousin. Remember that the man in demand is the one who has a working knowledge of things in general and is capable of doing one thing, at least, better than any one else. Waiting until manhood is reached before settling down to master a certain line is allowing a portion of life to be wasted. While it is possible to succeed, the man will never be what he might have been had he made the best use of spare time in boyhood days. The boys who laugh at their chum for being diligent in his studies oftentimes regret later in life that they had not made better use of the opportunities afforded them. This is an age of keen competition in every line, farming not excepted, and he who would a leader be must learn to work when he would rather play.

### Money Makes Money.

Money makes money, but the difficult problem for young men is to start a bank account. There is usually a ready demand on what little money comes their way. Even if they have a few dollars it is customary to carry it with them, rather than deposit it in a savings bank, or invest it in stock. When money is handy, there is strong temptation to spend it; probably what is purchased is needed, but the question is, could it have been done without. If the cash had not been in the pocket the temptation to buy would have been lessened. Self-restraint is required in this regard, as the habit of spending gradually grows. It is easy to convince oneself that a certain thing is really required. Tastes in excess of the income are easily cultivated, and the habit once formed hangs like a millstone around the neck of the person through life. During youth is the time to practice economy, and if possible save a little money. Very often the boy on the farm does not receive a stated sum per month or year, consequently he has not the same opportunity of starting a bank account as the boy who receives a wage. While a boy or young man may receive all the money he requires for immediate personal use, it requires the responsibility of handling money to learn its real value. The boy who works hard for every cent he gets is more likely to spend his money wisely than the one who has an allowance handed out to him. The policy of not buying anything unless there are good prospects of paying for it should always be followed. There are men to-day in middle life who have nothing laid by for a rainy day. These men receive good wages but have never formed the habit of laying aside a portion of the weekly wage. No matter how small the amount a person receives, they should govern the expenditure so as to lay aside a certain amount. Supposing it were only fifty cents per week, it amounts to twenty-six dollars a year, or at three per cent. compound interest to \$298 at the end of ten years. If a boy at the age of fifteen would plan to save the small sum of fifty cents each week, he would have a very snug bank account when he was twenty-five. A dollar a week saved would double this

amount, and there are plenty of young men who spend more than that each week in luxuries or for things for which they can show no real value. If this money had been invested at six per cent. the increase would have been considerably higher. A sum of money invested at six per cent. compound interest doubles itself in twelve years, and trebles itself in nineteen; this gives an idea of how money makes money, but, in order to get it working for you, it must be given a start. If a boy commences when young to save a little each week, he could be independent by the time he reaches middle life. The trouble is that there are so many ways to spend it that it is difficult to make the start.

The plan followed by some parents to teach the saving habit to their children is to have them deposit every cent they get, and then pay for what they buy by cheque. Once the money is laid by the boys and girls think twice before making a purchase, consequently many things of doubtful value to them are never bought. In one family there were a number of boys and girls, and the parents started this practice when they were all quite young. The banker who handled the money stated that before these children were ten years old they knew more about depositing and drawing money from the bank than many men who had reached middle life. The boys and girls were allowed to draw the money and invest it as they saw fit, and in this way they received a business training. For instance, one boy decided that there was more money in raising geese than in keeping his money in the bank at three per cent. interest. He purchased three birds and from them raised a flock. These birds were sold, and the next venture was in the sheep business. The boy got the increase from the flock, but paid his father for all the feed which was consumed. The flock increased to such an extent that it was necessary to reduce it, and part of the money was invested in a heifer calf. While this young man is only thirty years old, he owns his farm, stock and implements, with money in the bank besides. This seems incredible, but it is a fact and shows the possibilities of rising from saving money and investing it to good advantage. Once a few hundred dollars are laid by, they rapidly grow. Investments may not always turn out as expected, but the young man is better able to stand a failure than is an older person. He has the chance to profit by the experience and avoid making mistakes, possibly with larger investments.

At a number of school fairs which have been held through the Province, the prizes have been paid by cheque, and it was necessary for the boys and girls to go to the bank before receiving their money. The cheque had to be endorsed and presented in the proper way. At one school fair, in particular fifteen of the young people each started a bank account. While the first deposit was small, many of them continued to add to it, and after three years they had a very nice sum to their credit, which they would not have had had it not been for the encouragement they received to open a bank account. It is believed that it is only necessary to show the advantages of commencing to save when young to start many young people planning to save part of their allowance or weekly wage. Not only is saving a good habit to form, but it tends to give some idea of business transactions. One great trouble at the present time is the failure of boys and girls to realize the value of money.

### Will They Come Back?

EDITOR "THE FARMER'S ADVOCATE":

In the editorial comments of Oct. 5 I note the following query: "What effect has the school fair on the child who doesn't get a prize?" Having been sent out by the Department under Mr. Bailey's direction, I feel in a safe position to answer the above query to a fair degree. At the outset I may say of the boys and girls of Frontenac, Leeds, Prince Edward and Peterborough Counties, that they displayed the keenest optimism, and some of them in forceful language. With only one exception, they all intimated that they

will be back stronger than ever. With regard to that one case a little explanation was all that was necessary to cause a determination to come back. I find abundance of room for the judges to linger among exhibitors and explain in a careful way the reasons for the awards. I feel safe in saying there will be no sunburned potatoes or wormy apples at many fairs next year. "Are they downhearted?" No.

Durham Co., Ont.

WILL T. BAKER.

## THE DAIRY.

### Cleanliness in the Dairy Stable.

Dairymen who supply certain towns and cities with milk are required to keep their herds up to a certain standard of health, and their stables in a sanitary condition. If this is necessary to protect the health of town and city folk, is it not equally necessary to take precautions to protect the milk supply of rural families? Herds from which the city milk supply is secured are inspected regularly by a veterinarian, and animals showing symptoms of disease are removed from the herd. Dairy stables must also be kept up to a certain standard of cleanliness. In some places herds are tested for tuberculosis and any that react are considered to be unfit to furnish milk for human consumption, although pasteurizing the milk is believed to destroy all tubercular germs.

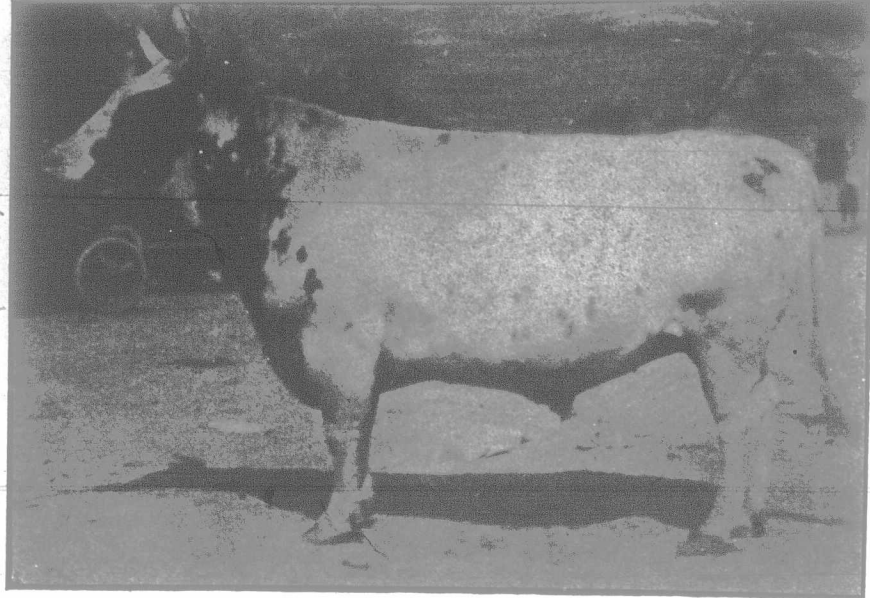
Milk is a medium through which disease epidemics have been started. In fact, it is more or less subject to infection not only from the cow but from all who have anything to do with milking, caring for milk and marketing it. By constant vigilance on the part of producer and retailer, disease traced directly to milk has been greatly reduced in centres of population. What about the rural districts? There, the quality of milk placed on the table is directly under the control of the producer. Seldom is it pasteurized, consequently disease germs that might pollute it either from cows, attendants or stable, are not destroyed. There is a certain amount of sickness every year, especially with children, that can be traced directly to the milk supply. Milk is a food, the purity and cleanliness of which should be carefully guarded.

It is easier to produce clean milk when cows are on grass than when they are stabled. There is always a certain amount of dust from dry feed and bedding, and particles of manure, etc., cling to the udder and flanks of the cow. Unless care is taken this dirt may drop into the pail during milking and contaminate it, although possibly not enough to cause sickness or disease. If in doubt whether or not milk contains dirt, place a filter paper in a funnel and pour a pint of milk through it. The sediment on the paper is an indication of the carefulness of the milker and the cleanliness of cows and stable.

Throughout the summer, cobwebs and dirt gather on walls and ceiling of the stable. Before the cows are housed for the winter the stable should be thoroughly whitewashed, to clean and whiten it. It is much easier to produce clean milk in a clean stable than in a dirty one. The following recipe for whitewash is recommended: Take half a bushel of unslacked lime and slack with warm water, keeping it covered

during the process to keep in the steam. Strain the liquid through a sieve or strainer, then add a peck of salt, previously dissolved in warm water; three pounds of ground rice, boiled to a thin paste and stirred in boiling hot; one pound of glue dissolved in boiling water, and one pound of Spanish whiting. To the mixture is added five gallons of hot water, then it should stand for a few days before using. The wash is best applied hot and either brushes or spray pump can be used to put it on. This brightens the stable and aids in banishing dirt. If windows are small, endeavor to enlarge them, as light and sunshine are enemies of germs.

Some dairymen make a practice of clipping the hair off the flanks and thighs of milking cows, and find that it aids in keeping them clean. Nature provides



Netherton King Theodore.

Senior champion Ayrshire bull at London. Owned by A. S. Turner & Son, Ryckman's Corners, Ont.

the animals with a fair coating of hair towards fall, and the longer the hair the more manure and dirt sticks to the cow's body and increases the danger of milk becoming contaminated. The clippers should be used before cows are stabled. Only a small portion of the body need be clipped. If possible take time to groom the cows occasionally; it aids in keeping them healthier, consequently tends to increase the milk yield. A little extra precaution and care at time of stabling the cows would materially aid in producing clean milk during the winter.

Wholesome milk can only be produced by healthy cows, stabled and fed in a sanitary manner. Milk from cows that are not in normal health should never be placed on the market in any form. It is endangering public health. Winter feeding makes it more difficult to keep the whole herd in the pink of condition than when they are running on grass, and the first six weeks in the stable is oftentimes the hardest. Changing

from green to dry feed, unless gradually done, causes slight derangement of the system, which in turn affects the milk. Prices of dairy products are high, and while the feeder bends every effort to secure the maximum returns from feed consumed, care must also be taken that the products will stand every test for quality and purity.

### How Milk May Be Contaminated.

The following extract appeared in the September issue of a Winnipeg Health Bulletin: "On August 1, this year, a dairyman by the name of A. Zarovestski, was prosecuted and convicted in the police court by the officers of the Food and Dairy Division, for watering his milk. Conviction was obtained and as it was his second offence a fine of \$50 and costs was imposed. On August 11, Zarovestski and his hired man were found to be suffering from typhoid fever. The authorities immediately closed his dairy and the cases were sent to the hospital. A list of his customers was obtained by the Department and the officers of the Infectious Disease Division found twenty cases of typhoid on his route. It will be noted that from the time the above sample was taken, July 26, until he was found suffering from typhoid fever covers a period of about sixteen days, which is within the incubation period of typhoid fever, and it is possible that in this case the cause of the disease was due to the adding of infected water to the milk. This example shows that for the protection of the public, distribution of watered milk should be put down with a rigorous hand."

In the above case the watering of the milk was done wantonly, with the infection following as a sequence, but there is always a possibility of a similar occurrence developing under ordinary conditions. No dairyman will knowingly infect his milk and cream, but the case cited is a strong one against carelessness in handling dairy products. There is no food consumed by humanity that is so easily contaminated as milk and milk products. Cleanliness and carefulness should always be practiced, as sickness may be occasioned by one act of neglect.

A person coming in contact with any contagious disease, be it ever so slight, should not attempt to handle milk in any way. The disease germs may be carried on the person and become dislodged and fall into the warm milk, where they find a suitable medium for their development. In this way epidemics have been started causing loss of life. Carrying water from contaminated wells in the milk pails may also infect the milk. Dairymen cannot be too careful in the handling of this important food.

## Automobiles, Farm Machinery and Farm Motors.

### Some "Nevers" to Remember.

Never stop your car by using the service brake if it is at all possible to utilize the clutch, and never under any circumstances use the brake without first pressing down the clutch. Brake action is hard on the tires, while the releasing of the clutch allows the casings to cease revolving without unusual friction. When you press down the brake without slipping the clutch, you are making the tightening of the brake drums work against the speed of the engine as well as the momentum of the car.

Never allow your motor to run very long with the spark retarded, as the tendency is to overheat the engine and use gasoline unnecessarily. If there is a starter on your car, it is folly not to kill the engine immediately upon your having no further use for power. Try to minimize the wear and tear on the motor and reduce to a minimum the amount of gasoline expended.

Never try to reverse your car while it is going forward. Fighting one motion against another gives but one answer—terrible strain upon the machine. Always see that your car is brought to a dead stop before shifting gears to reverse.

Never attempt to start your motor by pushing down on a crank or by "spinning" it. It is far safer to always pull up on the crank, and in the majority of cases this action is sufficient if you apply a quick, active energy. Spinning a motor often results in back fires that break wrists or arms. And do not fail to bear in mind that when cranking a car the spark should be retarded. In machines made some seven or eight years ago, the spark lever operated a metal disk which automatically prevented cranking when there was too much spark. People have recently become educated, however, and this device is no longer necessary, although we still hear of accidents happening from back fires.

Never start your motor until you are sure that the car is in neutral gear, and never put a car in gear after the motor has commenced running until you are positive that the emergency brakes are not set. Many drivers have wondered why their cars would not move off after they had placed them in low gear. The fault was not in the motor but rather in the fact that the machine was endeavoring to initiate momentum against the weight of the car itself, and the fact that the emergency brakes had been pulled.

Never use hard or dirty water in your radiator if a soft, clean supply is available. Foreign matter clings very readily to any kind of metal, and incrustation is bound to result on the jacket.

Never allow anyone to carry any kind of a naked light anywhere near your car while it is being filled with gasoline, as a breath of air may blow the fumes toward the light and cause a burst of flame. Only recently an owner struck a match to watch his gasoline gauge while fuel was being poured into the tank, and the accident that followed was almost fatal. He thought that there was no danger, but a gust of wind communicated the gas fumes to the match and a great blaze went up instantaneously.

Never throw in your clutch rapidly, as this creates a great strain on the machinery. Endeavor to so start the car that you will give the impression of a thief stealing away in the night. The appearance of this system of driving is much more attractive as it eliminates all jolts and jars, and the effect on the mechanism is restful and easy.

Never hesitate to use low speed in mud, gravel or any kind of heavy going. Your car may be able to travel anywhere on high gear, but it is a useless expenditure of energy to force it to do this upon all occasions.

Never stop your car suddenly. Your chief object, in so far as the emergency brake is concerned, should be to know when not to set it rather than when to set it.

AUTO.

### Some Facts About Water Supply.

President Cook, of the Mississippi Normal College, in a bulletin of the United States Bureau of Education, makes the rather startling statement that the average farmer's wife has to lift a ton of water a day. Here is how he figures it out:

"The getting of the water from the source of supply to the point of application requires more manual labor than any other item of housekeeping. The water for the kitchen has to be lifted from the well, carried to the kitchen, poured into the kettle, poured out of the kettle into the dish pan, and from the dish pan out of doors. This makes six times the water is handled, and a bucket of water containing two gallons, with the containing vessel, will weigh 20 pounds. When this is handled six times, the total lifting is 120 pounds. The cooking of three meals on a meagre allowance of water will necessitate 10 buckets, which will make the amount for cooking alone 1,200 pounds of lifting per day. When to this is added the water necessary for bathing, scrubbing and the weekly wash, it will easily bring the lift per day to a ton, and the lifting of a ton of water a day will take the elasticity out of a woman's step, the bloom out of her cheek, and the enjoyment from her soul."

A ton of water a day sounds a lot, but it's true, nevertheless, you know of cases right near you. Perhaps you can't afford a water supply system but be very sure you can't.

There are three common systems available for the storage and supply of water: 1, overhead gravity tank; 2, hydro-pneumatic (water and air); 3, pneumatic (air only). The first system requires a large overhead tank. The water is pumped up into this tank and runs from here to any desired place by gravity. It is unsightly and in a cold country like this undesirable.

The second system is very simple, and requires a force pump and a storage tank, and sufficient piping

to connect these to the source of supply probably the well. When the tank is set up it is full of air, this air cannot escape since all outlets are closed. As the pump forces the water into the tank the air is compressed until it occupies say one-fifth of the original space. This compression of air constantly adds pressure to the water, so that when the faucet is opened in the kitchen or the barn the water will be forced through the outlet pipe. The pressure is registered by a gauge on the tank, and will be between 30 and 60 pounds. Under ordinary circumstances 20 pounds pressure will be sufficient for household purposes, this requires the tank to be a little over half full. To take advantage of more water in the tank, however, the pressure is run higher. The following table gives the pressure in the tank corresponding to the height of the water.

Tank	full of water	lbs. pressure
One-fourth	"	5
Two-fifths	"	10
One-half	"	15
Three-fifths	"	22
Two-thirds	"	30
Seventh-tenths	"	35
Three-quarters	"	45

A pressure of 30 pounds would force water to a height of about 70 feet, while at 60 pounds pressure it could be forced 140 feet. There should be a safety valve of some kind on the tank.

Horses drink 5 to 10 gallons per day. Cattle drink 7 to 12 gallons per day. Hogs drink 2 to 2½ gallons per day. Sheep drink 1 to 2 gallons per day. These figures may vary to a considerable extent but are close enough for estimating. It requires about 7½ gallons to flush a lavatory, 30 gallons for a bath tub, 300 gallons should do an average family for 24 hours. So that you can decide on the size of storage tank required, do not make too small, as it is well to have plenty water available in case of fire. The tank must be placed away from frost, and is usually in the basement.

The third or pneumatic water supply system is the latest in development. It possesses several good features, such as obviating the storage of water requiring only one air storage outfit to supply both hard and soft water, and is adaptable to practically all conditions. Here we require an air compressor and a storage tank for air. The tank can be placed anywhere in the barn without danger of being frozen, and air can be stored to a pressure of 100 pounds per square inch and throttled down to say 20 pounds for ordinary use. In case of fire it can be opened up and water could be forced a great distance, as a large supply of air can be stored. The pneumatic pumps are made small enough to go in a four-inch well casing, and as many wells can be used as desired with one central storage tank; it is a very efficient system. We have not attempted to give instructions regarding installing these systems, as many reliable firms have these systems in the market and supply catalogues giving much more detailed information. We have tried to interest you in the question of water supply for the farm, and before you decide on any system find out all you can about those available.

Remember the cheapest may not be the best, and a system of this kind must be carefully installed. Gasoline engines are usually used to run the pump or air compressor as the case may be.

**Carburetor Queries.**

I thought perhaps the department in your paper on Automobiles, Farm Machinery and Farm Motors could give me some help regarding a small gasoline motor I made last winter. I am not able to design a carburetor that will work satisfactorily. The motor has a two-inch cylinder, a two-and-a-half-inch stroke, and the space in the combustion chamber is about one-and-a-half cubic inches. The intake valve is fitted for a quarter-inch pipe.

1. Will you please publish the design of a carburetor suitable for this motor? If this is impossible please publish information regarding the construction of a carburetor.

2. Is the combustion chamber the right size?

3. Should a motor of this size have power enough to drive a fanning mill? W. M.

Ans.—1. It would not be advisable for you to go to the expense of making special castings for carburetor. Your best plan would be to purchase a carburetor suitable for a 2½ power motorcycle and install this in your machine.

2. Apparently.

3. Yes.

AUTO.

**POULTRY.**

**These Leghorns Did Well.**

EDITOR "THE FARMER'S ADVOCATE":

Many of the readers of your poultry column will probably remember having read, some time ago, various letters of mine giving some practical experiences with bred-to-lay hens. For some time now I have been overseas with the British forces in France, but have, at the same time, directed the laying of the foundation for my poultry farm in England. In this I have been very successful, and, as I have followed the methods I have advised repeatedly in your columns, I would like to place the results before your readers in the hope that they may act as a stimulus.

I left Canada about a year ago. After arriving in England I spent some time on two large English poultry farms, one very successful, the other decidedly the reverse and now extinct. My own conclusions were fully confirmed by this additional experience, so that what I did when starting on my own account last spring was as follows: I got hold of a pen of bred-to-lay White Leghorns, consisting of one cockerel and 12 two-year-old hens. The dam of the cockerel had laid 260 eggs in her first year of laying, and 5 full sisters had won second place in the North American laying contest, after being sent over from England with a total of 1,105 eggs to their credit in twelve months. The hens I mated this cockerel with were not of the same quality but had proved good layers during their first year, and I relied upon the extra high laying qualities being transmitted to the chickens by the cockerel. I also procured a pen of White Orpington hens mated with a Leghorn cockerel for crossing purposes, and it was my intention to hatch every egg laid by these two pens, in order to reduce my first outlay for plant and stock. I was called up for the army six weeks afterwards which spoiled this, but the results my people have obtained are nevertheless very interesting.

The two-year-old Leghorn hens have from February 20 to September 17, that is, nearly 7 months, laid on the average 115 eggs apiece. They are now in full moult and have practically stopped laying, but in consideration of their good performance this summer I am keeping them over the winter for breeding purposes, and it will be interesting to see the final results for the year.

I had a few chickens hatch out on March 29. Of these nine pullets remain. The first commenced laying on August 17 at 4 months 19 days old. By September 17 I am getting an average of over five a day from the nine, though I am not sure whether all are laying. The next batch of chicks appeared two months later, at the end of May, and none have laid yet. I am expecting that when they do start they will keep up through the winter, though the first lot will possibly moult a little and slacken off. I have not at hand the profit and loss account.

poisons they are willing to purchase any amount in reason and apply it in the most effective manner. However, the feeling is now becoming quite prevalent that a large percentage of the crop is being sprayed off the trees, by the summer applications. Whether the material is too strong, the pressure used too great, or a combination of the two factors is causing the trouble, the people do not know, but some of the most experienced growers are satisfied in their own minds that the fruit, Kings and Starks particularly, is caused to drop after setting in a perfect manner. There are still of course a great number who do not spray thoroughly or methodically. We are not voicing their sentiments here; these are the ideas of orchardists who understand the work and know whereof they speak.

**The Nature of the Complaint.**

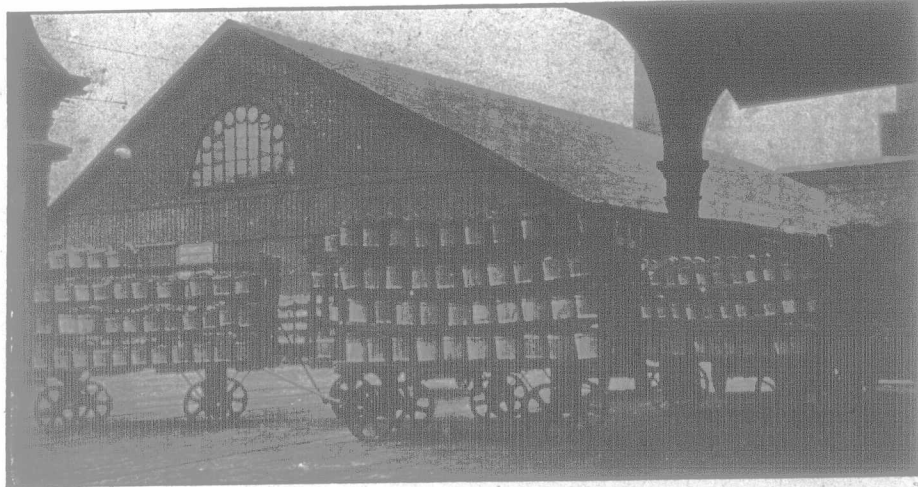
The recommendations followed in Ontario are adhered to fairly closely in Nova Scotia. The lime-sulphur wash is used quite generally, and a strength of 1,009, or 1,008 for the summer sprays. At least this is the strength advised, but it is usually obtained by diluting the commercial mixture according to the instructions which accompany the purchase, or the advice handed out by the Agricultural Department. When the wash is home-made a hydrometer is used and the dilutions made according to standard recommendations. It appears uncommon to test the mixture after it is in the tank and ready for application; here we believe some work could be done before any conclusions should be drawn. However, the fact remains that the spraying material is being prepared in the same manner as in other fruit-growing districts of Canada, yet the results are not so favorable. Two-and-one-half horse-power engines are commonly used in connection with the power sprayers, and the pressure varies between 175 and 250 pounds.

A number of the most experienced growers recently expressed themselves to the writer as being thoroughly convinced that some of the apples set were being sprayed off, the foliage injured, and the fruit spurs for the succeeding crop destroyed. Five or ten years ago we might have considered these views as the offspring of prejudice and the desire not to spray. The growers find the work very unpleasant, but those who know what clean fruit really is, and realize how important it is to produce it, know full well that they must continue to use the rod and hose, but they are seeking for a preparation that will not defeat their purpose.

**A Bordeaux Advocate.**

John Buchanan, who resides and has a large acreage of orchard in King's County, is a strong advocate of the Bordeaux mixture, yet the proportions entering into the preparation he uses are anything but orthodox.

His reasons for using Bordeaux instead of lime-sulphur are based on the conditions referred to in the preceding paragraphs. He has found that he cannot produce crops of Kings and Starks when spraying with lime-sulphur, neither do the other varieties fruit as abundantly as he would like when sprayed with the wash. Starks and Kings, particularly the latter, he believes are injured by the lime-sulphur spray. The general spraying in his orchard is done twice before the blossoms open and once after they fall. Gravensteins, and some varieties very susceptible to scab, are sprayed ten days later, making four applications in all. For the first spray 3¼ pounds of blue stone and 30 pounds of lump or burnt lime are used, with 100 gallons of water. The old recommendation regarding Bordeaux mixture was 4 pounds of blue stone, 4 pounds of lime, and 40 gallons of water. The mixture Mr. Buchanan uses, it will be observed, is much weaker in blue stone and stronger in lime than has been commonly advised. The second application is made in the proportion of 3¼ pounds of blue stone and 20 pounds of lime to 100 gallons of water. The third application has only 1¾ pounds of blue stone and 20 pounds of lime to 100 gallons of water. The last spray is practically all lime; very little blue stone is used with 30 pounds of lime and 100 gallons of water. This mixture he has used for several years and finds that the lime itself has considerable fungicidal value as well as a favorable effect upon the foliage and general thrift of the trees. As to the effectiveness of this preparation, the writer can say that the orchard was inspected on September 22 and the fruit with which the trees were heavily laden, generally speaking, was exceptionally clean. The Gravensteins, which spot easily, had been harvested; and out of one lot of 114 barrels, 85 barrels graded No. 1, and 12 barrels, No. 2's. This is a very good percentage of first-class fruit for a season such as this has been. Some thinning is usually done in the orchard, and of course the inferior specimens will be picked off. However, Spys, Wageners, Ganos, and Ben Davis were clean and well loaded. This method of spray-



Luscious Peaches in Transit.

There is, I know, a balance in hand after allowing for considerable feed in stock and paid for and the expense of raising the chickens to their present age. All cockerels have been disposed of for the last two or three weeks. As nearly as I can estimate the profit per bird is about \$2.75 to date, and I expect the pullets to keep not only themselves but the breeding stock over the winter and return a surplus as well. This is being done on "scientific" lines, with all feed bought. Eggs are sold at a high price, but feed also runs high. Figure out the profit if your hens laid as mine are doing, using your own prices paid and received. W. J. FLETCHER.

**HORTICULTURE.**

**Radical Views on Spraying in Nova Scotia.**

In some parts of the Annapolis Valley spraying has been carried on for a period covering from ten to fifteen years, and many of the growers during that time have been paying strict attention to the results of the different fungicides and arsenicals used. They have with this experience pretty well mastered the art from the practical viewpoint and are now in a position to judge of the feasibility of any recommendations handed down by the experimentalists or scientists. They were of course started on the right road by the advocates of spraying and the authorities who made a study of it, but now they are in a position to impart some valuable information gleaned from a decade's experience in fighting insect pests and attempting to control the persistent apple scab. They have used materials freely and they have not spared themselves. The most up-to-date power sprayers are common, so any complaints regarding too much pressure or too strong a mixture cannot be looked upon as the expression of a people who desire to shirk their work or lighten their labors, at the handle of the hand-pump. Regarding fungicides and









nature was turned towards the way of righteousness, and he became a powerful influence for good among the other convicts.

The humane system of treating prisoners has come to stay. It has proved its value. There is much truth in the old fable about the wager between the sun and the wind as to which of them could first remove a traveller's cloak. Of course, the cold wind only made him wrap the cloak about him, while the warm sun soon induced him to throw it off.

Our Lord was called the "Friend of publicans and sinners." His awful words of wrath were spoken to those who despised "sinners" and thought themselves to be righteous. Let us remember that we ourselves are sinners—lest we find ourselves standing among the self-righteous Pharisees. It is we who must say humbly: "Father, I have sinned against heaven, and in Thy sight, and am no more worthy to be called Thy son." Then—conscious of our own unworthiness—we may find our way suddenly cleared to restore an erring brother, and—

"Entice him home to be forgiven, Till he, too, see his Saviour plain."

Perhaps we talk about "completely crushing" our enemies in this war and refusing to have any dealings with them for generations. Then we kneel down and ask God to forgive us "as" we forgive those who have trespassed against us. Do we really want to be forgiven as we forgive? With no gleam of forgiveness in our own hearts, without even any wish to forgive, it is a mockery of God to use the Lord's Prayer. When our Lord first gave us against using it in unbrotherly fashion. His one comment on this great family prayer was: "For if ye forgive men their trespasses, your heavenly Father will also forgive you; but if ye forgive not men their trespasses, neither will your Father forgive your trespasses."

One of the pleasant things about this horrible war is the good-fellowship between the Russians and Japanese—and yet it is only a little over ten years since the Russo-Japanese War!

After the War—that time of restoration—are we planning to act like the "elder brother" in the parable, or are we prepared to obey our Master's orders and love our enemies? Punishment for crimes is a necessity; and weak, good-natured overlooking of frightful wickedness can do terrible mischief. God's punishments are stern and heavy but they are the chastisements of a Father. He aims at the restoration of His degraded children, not at their extermination. Our business is to catch the spirit of our Father—as, indeed, many of our soldiers seem to do. When righteousness and peace cannot be had together we must choose righteousness—even if it means war (St. Matt. X:34, 39). But we must always look forward to the day when righteousness and peace shall clasp hands, and our enemies shall be transformed into friends.

A year ago a noble English woman went out to die. Her wrongs were great, and yet she did not refuse to offer forgiveness to those who cared nothing for it. Would her name be honored by millions, in many lands, if she had died cursing her enemies instead of forgiving them? It is not impossible to forgive those who have wronged us. Edith Cavell did it, and so can we.  
DORA FARNCOMB.

## The Windrow

John Hangston Bonnor, an English sculptor, has been appointed to do part of the decorations for the new Parliament Buildings at Ottawa. He was engaged in decorating the country seat of Earl Kitchener at the time of the great soldier's death.

Mrs. Chamberlain, widow of the British statesman Joseph Chamberlain, whose third wife she was, was married recently to Canon Carnegie, the chaplain of the House of Commons.

The war, says the Literary Digest, by cutting off immigration from Europe has started a northward movement of negro laborers from the south of the

United States. The movement is said to be assuming large dimensions, and is looked upon in many quarters as most significant.

The aim of human life, no doubt, is happiness. But, after all, what is happiness? Efficiency, wealth, material comfort? Many by their lives do so affirm; few are cynical enough to say so; and on their death-beds none will feel so. Not even freedom in itself brings happiness. Happiness lies in breadth of heart, and breadth of heart is that inward freedom which has the power to understand, feel with, and, if need be, help others. In breadth of heart are founded justice, love, sacrifice; without it there would be no special meaning to any of our efforts, and the tale of all human life would be still no more than that of supremely gifted animals.—John Galsworthy, in the "Atlantic."

People who have been planting out bulbs in the garden for spring blooming, or in pots to force during the winter, will be interested to know that in Holland whole "ranches" are devoted to bulb culture. Many of these ranches are owned by women, who sometimes also grow mushrooms in the cellars where the bulbs for forcing are rooted. All the cultivation is on a strictly intensive scale, and not a foot of ground is wasted.

### Strange Rights and Privileges of Peers.

Foremost among hereditary offices is that of Earl Marshal, held by the Duke of Norfolk. Among his duties is the publication of all Royal proclamations concerning the Coronation, as well as making all arrangements for the same. As Earl of Arundel, the same nobleman is Chief Butler, for which the fee is a golden basin and ewer.

coat be adorned with gold buttons of a prescribed weight. The story goes that on one occasion the then Earl Spencer, against the wish of his Sovereign, refused to forego his right, but was finally foiled by the resource of the Lord Chancellor, who insisted that his gold buttons should be weighed, when one was found to be slightly below the proper standard. Such being the case, the Earl, of course, could no longer assert his privilege, so was forced to retire discomfited.

The reason why Baron Kinsale, of Ireland, possesses the privilege of remaining covered in his Sovereign's presence is as follows: In the reign of John a dispute arose between him and Philip Augustus of France about the title to the Duchy of Normandy, and to save unnecessary bloodshed it was agreed to refer the matter to two champions who should decide it by single combat.

John de Courcy, Earl of Ulster, was the chosen of England, and when he appeared in the lists, his gigantic proportions so terrified the French champion that the latter, setting spurs to his horse, broke from the lists and never returned. In this way the matter was settled without a blow. For this service, in addition to a large money grant, he and his successors—among whom is the present Lord Kinsale—were empowered, after the first obeisance, to be covered in the Royal presence. Lord Forester likewise possesses the same privilege.

The Percies stand alone in possessing the right of interment in Westminster Abbey, and in having the great west door open to admit the passage of the coffin. They lie buried in the St. Nicholas Chapel, near the tomb of the Duchess of Somerset, widow of the Protector.—Sel.

### Books For Preachers.

Boston has on Beacon Hill one of the

almost trebled in number. In the six New England States there are perhaps 7,000 clergymen; of these 1,700—500 in Greater Boston and 1,200 outside—are patrons of the library. Each quarter it issues a bibliography of a living topic in which ministers are interested.

The shelves are kept clear of antiquated books. When the present plan was adopted about 4,000 outworn volumes were removed. Perhaps 1,500 books are bought each year, selected by an interdenominational committee of Boston clergymen. In circulation, sociological books lead all other classes. Biographies are next in order of popularity. Purely homiletical books are far down in the column. The borrowers are not appropriating other men's sermons. Books of an inspirational character are popular. A depository of books for scholars, it is not intended to be but a practical working collection of the best and the latest volumes upon all subjects having to do with the duties of the pastorate.—The Independent.

### The Dobrudja.

At present we are hearing much of "the Dobrudja", in which Russians and Roumanians are now engaged in deadly grip with Bulgars and Teutons. Writing of this district in the Manchester Guardian, Patrick Vaux says: This region is one of the most desolate in Southeast Europe and, in late summer and early autumn, certainly the most pestilential. So little known was it previous to its cession by Bulgaria to Rumania four years ago that the majority of British cartographers did not give even its name on their maps. Bounded on north and west by the Danube, and on the east by the Black Sea, the Dobrudja has for centuries been the refuge of evil-doers and the lawless, while in the last two generations many a conscript has fled from Rumania, Bulgaria, Russia, and Hungary to find freedom in the fastnesses of its marshes. The Dobrudja under the Bulgars was a kind of No Man's Land, for their authority held no farther than the gendarmes could shoot, they were very disinclined to go poling about in its extensive 'fen country' in the execution of the law and justice. In Rumania's hands, however, the Dobrudja has undergone changes. An effort to stay the floods from the Danube was in contemplation before the war, together with a scheme for draining the extensive lagoons west of the St. George's mouth of the river, east of Tshernavoda. For centuries the region has been an uncultivated desert, dotted here and there by wandering flocks and their herdsmen, whose cloaks of plaited reeds serve equally against the sun and rain. Some Tartar families—the surviving evidences of Turkish occupation—pitch their encampments in the highest spots, or make away in the unhealthy season to the rocky coast—a sorry change from the land of their forefathers, the Crimea, from which they had fled at the time of Russian conquest.

Kostendji, to give the Dobrudja's seaport its old name, which stretches along a high headland running north-north-east into the Black Sea, has an open harbor, with bad anchorage. But under Rumanian auspices the place is becoming a fortified port of great importance. A few miles west of Kostendji there can be traced the east end of "The Canal of Constantine." The triangle formed by the Danube and the sea is so nearly complete that the distance from Kostendji to Tshernavoda, near the Danube end of the canal, can be walked on a good day in spring in eight to nine hours. By cutting this isthmus the Romans calculated on linking the Danube with the Black Sea so that they might avoid the shoals and sandbanks which more or less choke all the rivers' mouths, save the Sulina. While digging the canal they heaped up the earth taken from the vast trench upon the right bank, perhaps with the intention of using it as a means of defence. And to this day the folk of Tshernavoda term it "Trajan's Wall." The canal in their neighborhood, is still full of water, but it ultimately disappears among the marshes farther eastward.

One strange feature of this melancholy, waterlogged region of marshes



Sir Sam Hughes Visits the Front and Shows Aspiring Bomb-Throwers the "Hughes Hold."  
International Film Service.

The Marquess of Exeter is the Hereditary Grand Almoner of England. He has to collect certain monies, and distribute the same at the Coronation from a silver dish, which he claims as his perquisite.

To the Archbishop of Canterbury falls the right of crowning the Sovereign; to his Grace of York that of crowning the Queen Consort, while the Bishops of Durham, and Bath and Wells, support the Sovereign in the Coronation procession on the right and left hand respectively.

During the procession, the Barons of the Cinque Ports are privileged to carry above the Sovereign a canopy of cloth of gold or purple silk, while the Lord of the Manor of Worksop, Nottinghamshire, belongs the service of finding a glove for the Sovereign's right hand, and of supporting the right arm which holds the sceptre.

The Royal Sandal-Bearer is the Earl of Rothes, and when, some years ago, the Queen visited the Tav Bridge, the Countess of Rothes claimed this privilege, and presented her with a pair of slippers.

It is the prerogative of the representative of the Spencers to be present at Royal christenings, provided his

most remarkable libraries in the world. With 20,000 books on its shelves it loans more than 20,000 volumes a year, a circulation of 100 per cent. Its books are loaned only to ministers, to clergymen of all denominations who reside anywhere in the six New England States. It sends packages of sociology, science, history, biography, or homiletics, to any country home and any city residence in which is a minister who wants to borrow them. The cost to the minister is a stamp or a post card only. The cost to the library, which pays charges both ways, is \$1,500 a year.

The General Theological Library is a unique institution. Careful inquiry by the directors has failed to disclose any similar library anywhere in the world. Founded originally as a local library for Boston, it began its peculiar work ten years ago. First it abolished the membership fee as a prerequisite for the borrowing of books. Then it began to pay charges one way to ministers all over New England, and in 1909 its borrowers numbered 650 ministers a year. In that year it adopted the policy of paying charges both ways, and in the last four years its borrowers have



battered rolls and sandwiches are served, and may be eaten with the tea or lemonade from the adjoining booths. Booth 7—Pumpkin pie and pielets are sold at the Pie Booth, to be eaten "on the premises" or taken home as desired. Booth 8—Here a corn-shelling bee works up some excitement. A dozen contestants, who pay 5 cents each for the privilege, are given an ear apiece, and, at a signal, begin to rub off the corn. The first to shell exactly 100 grains and no more, wins the prize—a pumpkin pie. Booth 9—Here an immense pumpkin made of yellow cotton is filled with small parcels, and, for 5 cents, one is permitted to fish for one with a line and hook. Of course, it must contain something funny.

While all these are in full swing a shadow pantomime may be going on at one end of the hall, witches, cats, headless men, etc., passing across the screen (a suspended sheet) with ghostly effect. Or a pantomime witch-play in three acts may be carried out with shadows.

Now, after such a social as this your company will not be likely to go home with much money, but there will have been a "good time" and, no doubt, the money will go to the Red Cross or some other good cause.

**Home made Cheese.**

Mrs. R. D., Huron Co., would like to know a sure method for making home-made cheese. I have several methods in my books here, but would prefer to hear from someone who has actually made the cheese herself. Will someone kindly answer?

**Seasonable Cookery.**

**Pepper Relish.**—Cut 6 red and 6 green peppers (the large kind) in halves lengthwise and remove seeds and stem ends. Add 6 peeled onions and put all through a meat chopper. Put in a saucepan, cover with boiling water and let stand 5 minutes. Drain and add 1 cup sugar, 2 tablespoons salt, 1½ cups vinegar. Bring to boiling point and simmer 20 minutes. Store in glass jars.

**Baked Rarebit.**—Cut 1 lb. soft, mild cheese in thin slices. Add 2 tablespoons melted butter to 2½ cups stale bread-crumbs, and season with salt and pepper or paprika. Sprinkle a layer of the crumbs in a buttered bakingdish, then cover with one-third of the cheese, then put on more crumbs and continue with alternate layers until the dish is full, crumbs on top. Beat 3 eggs slightly and add 1½ cups milk and pour over mixture. Bake in a moderate oven 25 minutes and serve at once.

**Columbia Pork Chops.**—Take rather thick pork chops and remove some of the fat. Skewer the tenderloins on to the chops. Place in a shallow pan, season with salt and pepper, and sprinkle the top with dried breadcrumbs. Pour in boiling water to half depth of chops, cover closely, and bake in a slow oven 1½ hours. Remove the cover, put buttered crumbs on top of each chop and bake brown. Serve on a hot dish, garnished with parsley, and with or without tomato sauce.

**Cocoonut Rice Pudding.**—Wash the rice and put it in water, using 1½ cups to ½ cup rice. Stir in ½ teaspoon salt and place, closely covered, over the fire. Boil until most of the water is absorbed. Add a little more water, 2 tablespoons butter and one or more tablespoons dry cocoonut. Mix well with a fork. Cover closely and set on the back of the stove where it can steam but not boil. When the liquid is all absorbed turn the rice into the pudding dish, add sufficient milk, a beaten egg, and sugar to taste. Stir and bake in a moderate oven until the custard is set. Serve very hot. This is good either for dessert or a hot supper dish.

**Graham Pudding.**—One cup sweet milk, 1 cup molasses, 1 cup stoned raisins, 2 teaspoons soda dissolved in 1 tablespoon water, 1 teaspoon cinnamon, ¼ teaspoon cloves, 2 cups Graham flour. Steam 3 hours. All the measurements are level.

**The Scrap Bag.**

**Burn Old Flower Stalks.**

Pull out all old flower stalks, squash vines, etc., and burn them. They may harbor small cocoons and fungous diseases that may give trouble next summer. It is also well to work up the soil and, if it needs it, dig in some manure. The mellowing effects of winter will then have it in good condition for next year's growth.

**Winter Protection.**

Just before severe winter weather sets in put a covering of leaves over roots that require winter protection, and bind straw or sacking about shrubs and over vines that are not perfectly hardy. Also put a mulch of manure about heavy feeders such as roses and rhubarb.

**Cleaning Liquid for Colored Silk.**

The following is a simple, inexpensive liquid which may be used for cleaning colored silk blouses without fear of spoiling them. Grate two fair-sized raw potatoes into a pint of water. Strain the mixture through a coarse sieve into another vessel holding the same amount of water and let the second liquid stand until it has thoroughly settled. Pour off the clearer part of the liquid and rub or sponge your garment with it. Then wash the article in water, dry and iron it. The thick sediment left after the settling can be kept and used to clean thick fabrics, such as carpets and heavy clothes.—Sel.

**Measurements in Cooking.**

Nowadays in practically all recipes level measurements are required. For instance, if a cupful of flour is called for it should be levelled over the top with a knife; a teaspoonful of soda or baking powder calls for the same. In old recipes a rounded teaspoonful of baking powder was usually understood, that is rounding as much above the spoon as the spoon rounds underneath, or equivalent to 2 level teaspoons. The following directions may be useful:

One tablespoonful equals 3 level teaspoonfuls; 1 cup equals 16 level tablespoonfuls; 1 standard cupful equals 1 half pint; 1 pint equals 2 cupfuls; 4 cupfuls equals 1 quart.

**Vegetables in Winter.**

Be sure that winter vegetables are kept in a cool, dry place. They should be dried before storing. Carrots, beets and turnips will keep very nicely packed in dry earth or sand. Often vegetables shrink because they have not been perfectly ripe when gathered. If quite ripe the skin, on either fruit or vegetables, forms a comparatively impervious covering, through which but little moisture can escape. If not well ripened the moisture passes through and the crispness is gone.

The following very useful hints have been taken from Mrs. Abel's bulletin on "Care of Food in the Home," issued by the U. S. Dept. of Agriculture:

Keep potatoes in a cool, dry, dark place. Do not allow sprouts to grow in the spring.

Pumpkins and squash, to keep well, must be thoroughly ripe. Keep them on a shelf in a dry cellar, well separated from each other, and from time to time dry them off with a cloth.

Cabbages may be placed in barrels, roots uppermost.

Celery should be neither trimmed nor washed, but packed, heads up, in long, deep boxes filled with dry earth. (Do not let the earth get into the hearts.)

Tomatoes may be kept until January if wiped dry and placed on straw-covered racks in the cellar. They should be firm and full grown, not yet beginning to turn. As they ripen take out and use. If any should become soft or decayed remove them at once. (Decaying fruit or vegetables will infect those in contact with them.)

Keep choice apples or pears wrapped separately in soft paper.

Cranberries, after careful looking over to remove soft ones, are placed in a crock and covered with water. A plate or round board placed on top and weighted keeps the berries under. The water should be changed once a month.

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## Current Events

Oxford County (Ont.) Council has decided to give \$10,000 this year to the British Red Cross.

The Trades and Labor Council of Toronto have decided to ask Mayor Church to call a mass meeting to protest against the high cost of living.

During the current financial year the British House of Parliament has voted for war purposes £1,350,000,000.

Professor Lambros has formed a Greek Cabinet whose personnel is said to be "absolutely colorless."

Germany is now making preparations to examine for service all her men up to 63 years of age.

The two chief features of war news during the week have been the advance of the Italians and the rolling back of the Roumanian army in Transylvania. Gen. Cadorna's troops, in their drive towards Trieste, the chief commercial port of the Austriaps on the Adriatic, have been eminently successful, having taken within two months 30,881 prisoners. The Roumanians in Transylvania, on the other hand, have been steadily pushed back by von Falkenhayn, holding their own only at a few points where Cossacks have come to their assistance. The King of Roumania has made a public appeal to the Allies asking that they prevent the Teutons from overrunning his country as Serbia was overrun, and in response Russian troops are hurrying to the rescue.

On the West Front, for the most part, gains are continuous, and the French at Verdun are now throwing 100 shells to every one thrown by the Germans. Owing to some mistake, however, on Sunday, Oct. 8th, four Canadian Battalions were ordered to make a charge near Courcellette over ground not previously freed of wire entanglements by artillery, and as a result suffered terribly, one Battalion from Alberta being almost cut to pieces. At present the British are making a direct drive upon Bapaume, which may be taken before this reaches its readers.

In the Balkans the British continue to advance along the Struma, and the Serbs along the Cerna. A revolutionary army, followers of M. Venizelos, is collecting at Salonika, where the ex-Premier now is. In the meantime the Commander of the Anglo-French fleet in the Mediterranean has presented an ultimatum to the Greek Government demanding that Greece hand over to the Allies the entire Greek fleet with the exception of one cruiser and two battle-ships. This demand has been made to ensure the safety of the Allies in eastern waters.

## The Wife's Commandments.

Thou shalt love thy husband faithfully.

Thou shalt familiarize thyself with all the arts of housewifery so thou canst organize thy household as efficiently as thy husband does his business.

Standardize thy home; imitating not the flaunting propensities of the extravagant neighbor on thy right nor the penuriousness of the neighbor on thy left, but seek the satisfaction of one who knoweth her income and bringeth expenditures within the boundaries thereof.

Discuss not thy husband's faults and foibles with friend nor neighbor; loyalty is always admirable.

Thou shalt not nag. Use tact; for knowest thou, O Woman, that all the happy victories of wifehood are gained thereby.

Thou shalt not whine. It is a two-edged sword in the domestic circle, often severing the marriage tie.

Cultivate good humor, for, verily, a cheerful helpmate is more to be desired than much gold.

Keep trig looking. Post-nuptial neatness is as attractive as ante-nuptial trimness.

Oust suspicion as thou wouldst a weed from thy garden. There is less incentive for a man to keep doing right who is always suspected of wrongdoing.

Let the progressive spirit animate

thee, leaving no way barred toward self-improvement. For when beauty fades, the well-stored mind and lovely spirit shall remain unfailing magnets to a worthy husband's love.

E. R. W.

## All Because of Mollie.

BY AGNES HUNT.

"Whoa, Mollie!" But the more I "whoaed" and tugged at the reins, the faster Mollie went.

Past the carriages, one by one, we flew, the wheels sometimes dangerously close and sometimes just grazing the deep ditch.

The people sat up and looked at me as if I had gone crazy.

I could feel my cheeks hot, and I knew they were glowing red; my hair, which I never can coax into any degree of primness—was coming down in masses round my neck and ears. I feared my hat would go next, but both hands were needed to guide Mollie,—controlling her was beyond me.

Oh, if the earth would only open and swallow me up out of sight!—but I'd only to go a little closer to the ditch and that might easily happen.

I was gaining on the pall-bearers and the hearse with its nodding black plumes. We sped past them, Mollie going even faster! I glimpsed old Mr. McEwen as he suddenly sat straight up in his seat staring at me through his blue goggles, and for that brief second he even forgot to chew—something I never saw occur before. Always, constantly, whenever or wherever I met him his little grey-whiskered chin reminded me of perpetual motion.

The long funeral procession was just entering town as I overtook the pall-bearers and as I dashed past our minister, Dr. Brown, I caught a look,—well I could not call it pleasant by any means. It seemed to say, "Well Miss Kate, you shall smart for this. I'll report you to the Doctor."

If Daddy had only been with me this awful thing would not have seemed so scandalous. People would have said, "The Doctor must have a hurry call somewhere!"

But Daddy wasn't with me, though he had insisted that I must go. How was I to explain whirling out of the line and racing past the long procession like a speeding motor only to stop when the last carriage was left well behind?—for that was just what Mollie did!

No sooner had I passed Dr. Brown than she stopped of her own accord, and here was I first in the procession. Then the humor of the situation dawned upon me and I shook with laughter though I tried in vain to keep my "risibilities" down.

So this was Jack Kennedy's horse! The Jack Kennedy who had been expelled from college, who had been fined for fast driving!

Well, if some power didn't come to my aid I might also be fined,—though certainly innocent of all evil intentions. Even as I thought of that young man he ran into the street, vaulted into the



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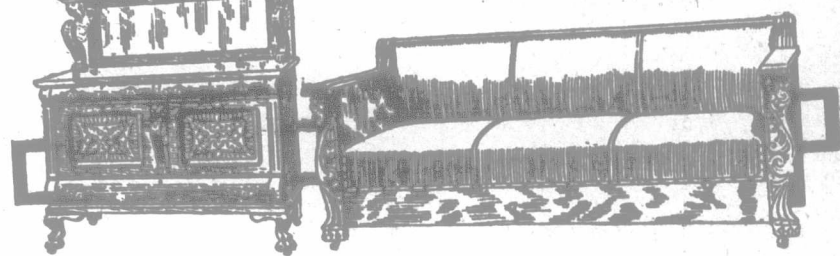
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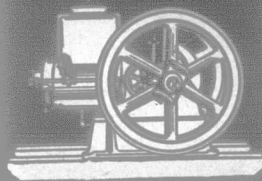
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They run as you hoped they would







and made a prisoner at last. The officers expected he would be shot at once as a spy.

The side door was open and I could bear no more, so I slipped quietly out no one noticing me, so I rapt were they all in the old man's story. Jack had been vindicated—had proven himself a hero—what more could I ask? But oh—the longing to have seen him if only just once, to let him know how proud I was of him!

Father would tell me the rest quietly at home, would tell his parents too, for I noticed they were not present. As I reached home, I could not go indoors I felt, and almost instinctively turned toward the stables. Poor old Mollie! She loved him too! The door was open and as I entered I caught my breath sharply. There with his right arm over her neck, his left in a sling was a khaki-clad figure so like—Then he turned, and with a cry I ran straight into his one strong arm. Jack alive and looking well, but oh, so badly crippled!

I accepted the miracle quite calmly after the first thrilling surprise. He told me how he had escaped from the Germans, how he had been nursed to convalescence, and had finally come home with Dr. Brown who had been like a father to him. Then we talked of other things, interesting only to Jack and me.

Suddenly we ran to the gate. Down the street came the shouts of many throats. The noise and hubbub became louder and nearer. A crowd of men were coming, cheering as they came. At last we caught the words—"What's the matter with Kennedy!" and the answer—"He's all right!" Then again—"Three cheers for our hero Kennedy!"

I turned to flee but Jack held me by the arm. Father's arm-chair was seized from the garden; Jack was unceremoniously but tenderly, placed in it, raised upon the shoulders of his old-time comrades and school-fellows and borne aloft through the town that all might see him, the returned hero!

I believe every citizen excused their "Sunday" behavior, but such an Easter was never before known in our town.

Jack told me all about it later in the day, as he stroked Mollie's silken neck.

"Isn't it wonderful Katie, the changes a year has made for me? And best of all I've won the dearest girl in the whole world!"

I hid my face against Mollie, and laughingly said, "Yes Jack, and all because of dear old Mollie."

Out of the Soil.

BY F. MARLETT BELLSMITH.

"I can't stand this much longer," muttered Joe Lewis to himself one spring morning as he hitched the horses to the seeder and drove out of the barn-yard. "The strain of this kind of life is becoming unbearable. Gee there you Meg!" and he gave the bay filly a vicious cut with the whip, which served no better purpose than to make the nervous creature still more restless. "I know what I'll do; I'll see Tom and get him to hurry up his Sis' wedding and look after the farm, and I'll go to the Klondyke." And having made up his mind he went through his morning's work in a stolid fashion.

At dinner time Joe made his wish to leave the farm known to his sister in these words:

"I guess the old place won't see much more of me, Sis."

"Why Joe, what do you mean?" and Mary looked up in surprise from where she was taking a pie out of the oven, and burnt her fingers in consequence.

"Well," drawled her brother in his slow way, "you know what the papers said about Billings making a fortune at the Klondyke. I've been thinking about it, and I don't see why if a fellow like him can do it I can't. And I just tell you," with a slap of the hand on the table for emphasis, "I can and I will."

Mary Lewis was not a girl to get easily excited, even about a matter which she regarded as serious as this. She sucked her burnt fingers in silence for a moment, then put the pie on the table, served her brother to a generous piece and took a smaller piece herself; after which she poured out two cups of strong tea and finally asked in a quiet tone:

"Going to the Klondyke will cost

money for the outfit as well as to get there; how do you propose to raise it?"

"By a second mortgage," promptly answered Joe.

Mary shook her head, and her brother went on in a tone which indicated that he did not like opposition, "I don't know why not; the old farm is worth it."

The sister said nothing, though with sounder judgment than her brother she thought he would find it rather hard to persuade any one to lend him money with the land in its present run down condition, especially as it was already mortgaged for nearly its full value. Therefore the two finished their meal in silence. It was when Mary had begun to clear away the dishes that she ventured another question:

"What will I do while you are away, Joe?" She had a shrewd idea of what the answer would be; and the thought was not at all unpleasant to her. Joe had been the obstacle in the way of her marriage, but she was not selfish enough to welcome her own chance of happiness at his expense.

"That's plain sailing, Sis; you and Tom have been engaged for nearly two years and I don't think he'll object to coming here to live. This is his night for coming over and I will ask him to look after things here while I am gone."

Mary watched her brother through the kitchen window with tear-dimmed eyes as he crossed the yard. Their father had died when they were young and their mother had kept the home together and had managed the farm with good judgment and success until she was taken three years before, since when, Joe, always discontented in disposition and a little inclined to be lazy, had let the land run to seed; so that, in spite of all that Mary could do, they were not only unable to pay off any part of the principal but had great difficulty in meeting the interest. The prospect, therefore, was none of the brightest; and to have Joe propose to raise a second mortgage and go away to the gold-mines at the present juncture filled her with the deepest concern.

Tom Plainman called that evening, as expected, and Joe hurried out at the first sound of rattling wheels; he was anxious to have a word with the visitor alone before he entered the house, as they unhitched Tom's high-stepping black gelding, which made Mary the envy of half the girls in Cranberry and the countryside, Lewis told his plan. Plainman was as quick as Mary to see that it meant happiness to them, and not being as unselfish as she, jumped at the chance. However, when Joe proposed that Tom become manager of the Lewis farm he demurred:

"I am afraid, Joe, that you will not be able to raise the money," he suggested; "but what is the matter with selling the farm to me? I have a little money saved and I'll give you a thousand dollars cash and assume the mortgage; what do you say?"

Joe was not the man to drive a bargain, and then he knew in his heart that his prospective brother-in-law's offer was a very generous one; so he closed with the deal on the spot.

Mary was forestalled. She had been thinking all afternoon of how she would divert Joe from his foolish purpose, but now she could only yield to the inevitable. The wedding was fixed for three weeks ahead, for Joe was determined to leave as soon as seeding was done. They were busy weeks for Mary.

At last the day came and Joe drove his pretty sister to the Methodist church in Cranberry with the buggy newly varnished and the team of grays specially groomed for the occasion.

It was the most popular wedding held in the district in a long time; for both of the young people were highly thought of. Mary was liked for her sweet unselfish nature and Tom was respected because of what he had done in a few short years. It seemed to the old-timers like the day before that he had arrived from England, green of the green, to whom to try and teach farming was sheer foolishness. Yet now he was recognised as one of the best farm-hands in the neighborhood, with money enough saved to buy a farm for himself.

At the celebration which followed, the minister said that not since he had come to Cranberry had a wedding given him so much pleasure. At which one of the young ladies turned to her neighbor and said in a whisper:

Are your hens winter layers? The time to prepare for winter eggs is during October, November and December. Have your hens get over the moulting season early and enter the winter months healthy and vigorous. This you can do by feeding Royal Purple Poultry Specific, put up in four sizes, viz.: 25c, 50c, \$1.50 and \$5.00. Use Royal Purple Roup Cure in the drinking water to prevent and cure diseases—25c tins only. Royal Purple Lice Killer—the hen's best friend and the worst enemy of lice. It smothers them and will permit the hen to sit comfortably on the nest to lay her eggs. It is made from the flowers of an Oriental plant which we grind to the very finest powder. Guaranteed. 25c. and 50c. a tin. Thoroughly disinfect your hen houses with Royal Purple Disinfectant—put up in three sizes, 25c, 50c and \$1.00. For sale by our dealer in your town. Free—We will send absolutely free one of our 80-page illustrated booklets on the common diseases of stock and poultry. It tells how to prevent and cure diseases; describes fully our Royal Purple Calf Meal on which you can raise calves without using milk if necessary. This book is given free, no postage required. Write for your copy to-day. Dept. B. The W. A. Jenkins Manfg. Co., Ltd., London - Ont.

PLEASANT VALLEY SHORTHORNS Special Offering:—Several young bulls from 7 to 16 months, sired by Loyal Scot (Imp.) and from our best breeding females. You will like these, and we could also spare a few choice females bred to the same sire. GEO. AMOS & SONS, Moffat, Ont. (11 miles east of Guelph, C.P.R.)

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### Oat Sheaves for Feeding Steers.

During the winter of 1915-16 an experiment was carried on at the Brandon Experimental Farm with two lots of steers, 10 in each, to ascertain the advisability of feeding oat sheaves and thus save the labor of threshing, grinding, etc. This may be of interest to farmers in Eastern Canada, especially at this season of the year when the threshing is not all completed. Other feeds were combined with the oat sheaves and fed against cut straw and oat chop. Briefly, the steers fed on oat sheaves returned an average profit of \$17.46, while those fed on cut straw and chop showed a profit of \$16.44 each. The two systems of feeding and the itemized results may be found in the following paragraphs.

The cattle were obtained during the month of November at the Winnipeg Stock Yards. The purchase price was \$6.00 per cwt, but the transportation, feed consumed, shrinkage, etc., made the cost \$6.57 per cwt. at the beginning of the experiment.

The steers were divided into two uniform lots; one lot received oat sheaves as the principal part of the ration, while the other lot was fed as nearly as possible the same amount of feed in the form of cut straw and oat chop. In addition to these feeds, both lots got barley chop and corn silage, and part of the time roots instead of silage. In the spring, after the corn and roots were finished, both lots got a little bran.

The amounts of feed dispensed to the cattle varied according to the appetite of the steers. The grain ration was gradually increased, starting with 2 pounds of grain per head for those on cut feed it was increased to 14 pounds at the finish, in the spring. The lot on oat sheaves got no additional grain for six weeks, but after that barley chop was added and gradually increased. The following table shows the results of the experiment in tabular form:

Lot 1—Cut Straw and Oat Chop.	
Number of steers.....	10
First weight (total) December 4, 1915.....	9,600 lbs.
Finished weight (total) May 1, 1916.....	11,965 "
Total gain in 149 days.....	2,365 "
Gain per steer.....	236 1/2 "
Average daily gain per steer.....	1.59 "
Initial cost of steers, at \$6.57 per cwt.....	\$630.72
Cost of feed.....	182.48
Total cost.....	813.20
Receipts from sale at \$8.60 per cwt., 5% shrinkage.....	977.56
Profit and labor income.....	16.44
Cost of 100 lbs. gain in weight.....	7.71

The feed used by lot 1 amounted to 5,780 lbs. oats at 34 cents per bushel; 588 lbs. barley at 40 cents per bushel; 390 lbs. bran at \$16.00 per ton; 14,980 lbs. straw at \$2.00 per ton; 8,400 lbs. roots at \$3.00 per ton; 33,990 lbs. corn silage at \$3.00 per ton.

Lot 2—Unthreshed Oat Sheaves.	
Number of steers.....	10
First weight (total) December 4, 1915.....	9,683 lbs.
Finished weight (total) May 1, 1916.....	12,275 "
Total gain in 149 days.....	2,592 "
Gain per steer.....	259.2 "
Average daily gain per steer.....	1.74 "
Initial cost of steers, at \$6.57 per cwt.....	\$636.17
Cost of feed.....	192.04
Total cost.....	828.21
Receipts from sale at \$8.60 per cwt., 5% shrinkage.....	1,002.85
Profit and labor income.....	174.64
Profit and labor income per steer.....	17.46
Average cost of 100 lbs. of gain in weight.....	7.41

The feed in this case amounted to 2,171 oat sheaves at 4 cents each; 4,620 lbs. barley at 40 cents per bushel; 390 lbs. bran at \$16 per ton; 8,400 lbs. roots at \$3 per ton, and 33,990 lbs. corn silage at \$3 per ton.

It will be observed that the oat sheaves have given better results than the oat straw and oat chop. While it would not be wise to state that threshing and grinding are a waste of time, one can safely come to this con-

clusion, that feeders are safe in starting off a bunch of feeding steers with oat sheaves. The Superintendent of the Station writes, that steers will make a good start in the early winter with them as the only feed. However, additional grain should be given in the latter part of the feeding period, or else the sheaves fed in sufficient quantity that the cattle may waste some of the straw and get enough grain to make a fattening ration.

### Remedies for Ivy Poisoning.

Direct contact with the poison ivy plant is not always necessary to produce poisoning, as the poison may be transferred from clothing, gloves, and implements, also from towels used by those who have been in contact with the plant. When there is reason to believe that there has been exposure to the poison, repeated washing with warm water and strongly alkaline soap as soon as possible is advisable.

There is no one remedy that will cure all cases of ivy poisoning, and in severe cases a physician should be consulted. Specialists of the department have found the following methods and formulas useful in many cases. At the outset, removal of the cause of the irritation may be accomplished by cleaning the inflamed surface repeatedly with alcohol, or with a saturated solution of sugar of lead in alcohol, using a fresh bit of lint or absorbent cotton each time, to avoid spreading the irritant. The sugar of lead cannot be used over extensive areas, because of risk of lead poisoning. Covering the inflamed parts with lint or absorbent cotton kept constantly moist with lime-water or with a saturated solution of bicarbonate of soda will afford relief. When this cannot be used, a simple ointment, such as zinc oxide ointment, is recommended. A solution containing 1 ounce of fluid extract of grindelia to 1 pint of water applied on cloths and allowed to evaporate may afford relief. Black wash, prepared by adding 1 dram of calomel to 1 pint of lime-water, may be applied two or three times a day, allowed to dry, and followed with zinc-oxide ointment. This treatment must be used with caution in extensive cases because of the possibility of mercury poisoning. The acute inflammation of ivy poisoning is sometimes followed by eczema and secondary infections of the skin, which, in mild cases, will yield readily to treatment with bland antiseptic ointments. A formula highly recommended for ivy poisoning and often especially helpful at this stage is the following:

Carbolic acid, 2 grams; resorcin, 2 grams; bismuth subgallate, 4 grams; equal parts water and lime-water to make 250 cc.

This solution may be dabbed on the affected parts several times a day.

### Gossip.

#### Last Call for the O. A. C. Sale.

This is the last call for the big sale of pure-bred stock to be held at the Ontario Agricultural College, Guelph, Thursday, October 26. Shorthorns, Holsteins, Ayrshires, Yorkshire and Berkshire breeding sows and young pigs and choice representatives of several of the best-known breeds of sheep will be sold at the buyers' own prices. This is a rare opportunity. Make the best of it by reading the advertisement in another column and a description of the stock in last week's issue, and then go to the sale prepared to bid and buy. It is not too late yet to get a catalogue from Prof. G. E. Day or Prof. A. Leitch.

During the cross-examination, the would-be benedict was asked: "What salary do you make?"

"\$1,000 a year," with all due importance.

"Why that wouldn't keep the girl in handkerchiefs," the father replied.

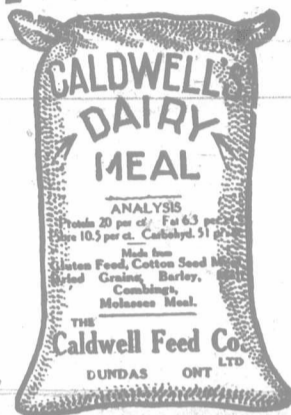
"I'll wait," was the answer, "until her cold gets better."

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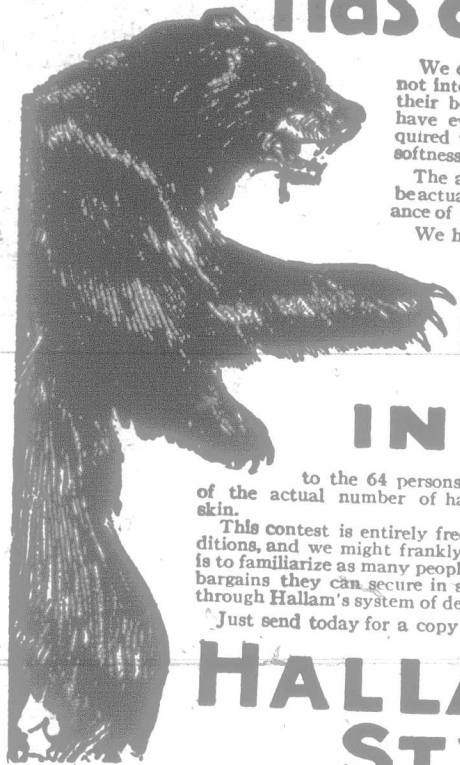
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on the back cover of which are full particulars of this Zoological contest.

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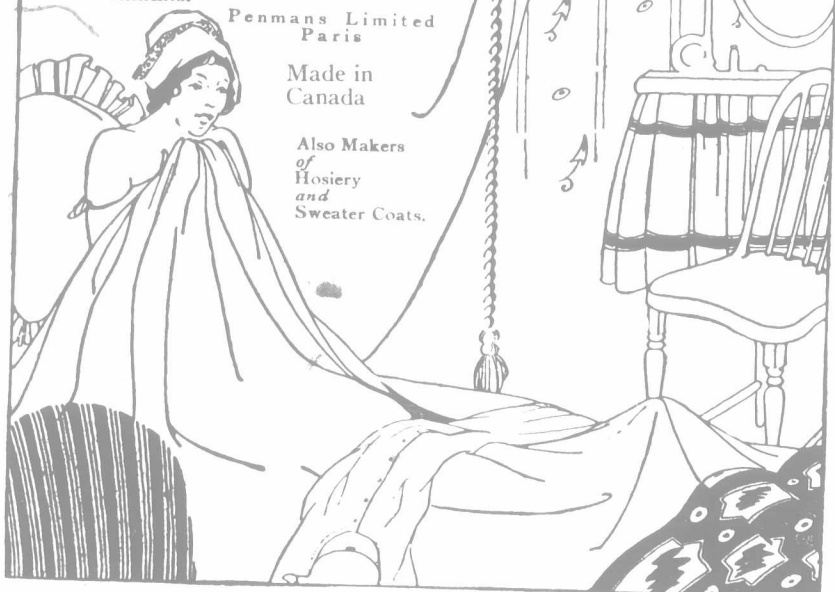
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H.A. MACDONELL, Director of Colonization, HON. G. HOWARD FERGUSON.

## How to Plant Trees in the Fall.

The planting of any tree is best done at a time when it is making no growth, either early in the spring before the buds open or in the autumn before the ground freezes. Evergreens, such as the pines or the spruces, can be planted with more or less success during the summer months, but it requires extra precautions to be taken and should be avoided if possible. Broad-leaved species, such as maple and elms, should never be planted when in leaf, that is, while the leaves are still green and active. It is not necessary to wait until every leaf is shed. Some trees, like the oaks and the beech, frequently retain many of their leaves throughout the greater part of the winter. Spring planting usually gives better results than fall planting. Spring is the season of most vigorous growth, and planting at that time gives the tree an opportunity to establish itself, and the soil a chance to become thoroughly settled before the winter. There is then little danger of the trees being heaved by the frost. However, if proper precautions are taken, there is little risk of serious loss as a result of fall planting.

In buying trees, other things being equal, it is advisable to order them from a local nursery. This reduces the risk of loss during transportation, and enables one to visit the nursery and make the selection personally.

In selecting a tree, a compact root system is of great importance. The more small roots a tree has the greater its chance of surviving the shock of transplanting, and the more rapid will be its growth. A large top is desirable, provided there is an abundance of roots. A tree with many branches and few roots will make very slow growth if it survives at all. A tree which has lost many of its feeding roots is unable to meet the demand made by the branches, and it is therefore necessary to remove a proportional number of the branches to restore the balance.

No matter how carefully a tree is dug up many of the roots are sure to be broken off or injured. The larger the tree the greater the loss of roots and more severe the pruning required. The removal of four-fifths of the past season's growth from all branches will be sufficient with trees not more than three or four years of age. The cut should be made just above some strong bud. Care, however, should be taken not to destroy the leader or main stem. All broken roots should be trimmed to enable them to heal. All cuts should be made by a sharp knife and should be smooth.

It is frequently impossible to trim an evergreen tree without permanently destroying its value for ornamental purposes. Therefore, greater pains should be taken to secure a larger proportion of the root system with these trees.

Only trees with a well-developed, single leader or main-stem should be chosen. Those with two or three leaders will probably develop into crooked trees and have all the weaknesses of that type. However, by careful pruning as the tree develops, the central stem can sometimes be encouraged to become the leader.

A good, straight leader like a whip-stalk or fishing pole is what is desired for the ideal street or lawn tree. For planting adjoining walks, where head room is required for pedestrians, a straight stemmed tree from one to one-and-one-half inches in diameter at breast height, and clear of branches for at least seven feet from the ground, will be found most suitable. If the tree is set near a driveway it may be necessary to gradually remove the lower branches as the top develops until there is ample clearance for vehicles. On lawns and other open situations the lower branches may be retained if desired.

One of the commonest mistakes made is in choosing large trees. The smaller the tree the less likely it is to suffer in transplanting. Small trees will often catch up to larger trees in a few years.

Trees are shipped from the nursery in bales or boxes with their roots packed in wet moss and wrapped

with straw and also wrapped and tied. If they arrive before planting time the roots should be "puddled" and the trees "heeled in." Puddling consists in dipping the roots in a mixture of clay and water about the consistency of ordinary paint. This forms a coating over the roots and aids in preventing them from drying out. The heeling in consists in digging a trench sufficiently deep to contain the roots with moist earth. If protected from damage by rodents and the elements, they may be heeled in during the fall and left all winter for spring planting.

In taking up trees which are growing on the place, as much earth as possible should be removed with the roots. This prevents the roots from drying out. If the trees are to be carried any distance before planting again it is advisable to wrap the ball of earth in canvas or place each tree in a bag and tie in such a manner as to prevent the earth from being shaken off. At no stage in the taking up, transplanting or planting should the roots be allowed to become dry. This is important. The planting should be done as soon as possible after taking up.

The hole in which the tree is to be planted should be made much broader and deeper than is necessary to accommodate the roots. Before placing in the tree, the hole should be partly filled in with good garden loam or some of the surface soil, which has been removed in the digging, mixed with some well-rotted manure.

The hole is filled in sufficiently deep to bring the tree to the same level at which it stood before being taken up. The tree should not be set deeper than it stood before, neither should earth be banked up about the stem, except possibly in the case of fall planting, when it is advisable to heap it up at least a foot high until the spring. This overcomes the tendency to heave out, and to a certain extent affords protection against mice.

If the tree retains a ball of earth about its roots it can then be set in the prepared hole. The remaining space surrounding it is then firmly packed a little at a time with good garden loam until the hole is completely filled and the tree firmly set. It is well to leave an inch or so of loose earth over the whole surface to act as a mulch.

In fall planting a layer of manure or dead leaves over the top will reduce the chance of heaving in the early spring.

Trees without earth about their roots should be set in a similarly prepared hole so that the roots spread naturally and are not twisted or crowded. Rich soil should then be sifted over them, a little at a time, and firmly worked in among them with the fingers or a pointed stick. This is proceeded with until the hole is filled. It is important to have the soil well packed about the roots.

In setting a tree care should be taken from the very start to see that the stem is kept perfectly vertical. Attempts made to straighten it after the earth has been packed about the roots are liable to injure the tree.

After the hole has been filled in, to prevent the tree from getting out of vertical by settling of the earth and the swaying of the top in the wind, a guard stake should be used. A single stake is sufficient for any situation in which there is little danger from damage by children or vehicles. Otherwise, a secure crate the full height of the trunk should be constructed about it. The single stake should be long and rigid enough to be driven at least two feet into the ground and still support the tree six or seven feet above the ground. The tree should then be attached to the stake in several places. A piece of manilla rope run through a piece of old rubber hose which has been bent about the tree serves as a good fastener. The hose minimizes the chafing. — Canadian Forestry Journal.

Said an Irishman to his friend, "I'd have ye know, Pat, that I've got a fine baby boy, an' me neighbors say he's the pictur o' meself."

His friend having in mind the ugly mug which Murphy carried, hesitated a bit and consolingly said: "Well, Murphy, what's the harm if he do resemble ye, providin' the child is

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**Silent Power.**

EDITOR "THE FARMER'S ADVOCATE":

The great forces of nature are silent. Plant growth, the food of man and beast, comes forth in silence. The giant trees of the forest are reared by the evolution of myriad minute cells toward the blue heavens—in silence. The great central glory—the visible creation's "eye and soul"—fills his empire with light and life without audible voice. Voiceless also are the stars, unnumbered suns ruling systems but little known to us. Gravitation, the unseen energy which holds suns and attendant worlds each in its orbit, acts ever in silence. The ether of electricity is potential or silent power; and what unmeasured power is this! power, too, that man may yet more fully control. In its active effects it is transient, as the lightning's flash or the telegraphic despatch; in repose it is a permanent, potential force.

Some one has said: "Silence is called golden, because it is an indication of power in repose. The man who doth not say all, has learned the great diplomacy of life." The suggestion of reserve force—of unused or unknown power—inspires confidence, admiration or awe. There are heights and depths in the mind of man, as in the realm of nature, beyond the reach of line or plummet. With an indication of these the goal is attained. This is one of the elements of the power of what we call great minds, as, Shakespeare, Milton, Carlyle, Emerson, Browning, Victor Hugo, who have the power to speak as it were in blank spaces or between lines—to charge the mind of the reader through silence and suggestion.

The light of genius itself shines with permanence only in the written or printed page. Oratory, sublime though it may be, is strictly a transient force, its effect in many instances passing with the utterance. Where, to-day, would be the great ones of the past, were it not for the silent pages of history? What should we know of the vast conception, the luminous and lofty diction of Homer, the poignant satire of Juvenal, the stately rhythm of Virgil, the philosophy of Plato, the eloquence of Demosthenes, Cicero or Longinus? Tradition might afford some glimpses of remote times, but had nothing been written such knowledge would be negligible. Recent men and events would be little better known through merely spoken words. Written words carry dignity, permanence, power. While oral expression reaches the mind through the ear, writing has the two-fold avenue—the ear and the eye. Also, the visible expression may be fixed or impressed on the mind by reference and reading. Through the silent archives of literature we may in available moments meet, or renew acquaintance with, the wise and the great, without embarrassment and without formality.

Carlyle wrote thus of silence: "Looking round on the noisy inanity of the world, words with little meaning, actions with little worth, one loves to reflect on the great empire of silence. . . . higher than the stars; deeper than the kingdoms of death! It alone is great; all else is small!"  
Kent Co., Ont. W. J. WAY.

**Yorkshires, Oxfords and Collies.**

B. Armstrong & Son, Codrington, Ont., write "The Farmer's Advocate" that they have had many flattering letters from purchasers of their stock, and since they have procured one of the best boars they could obtain in Ontario to mate with their herd of Yorkshire sows they look forward with a good deal of confidence to the future trade. With regard to this mating they write: "This boar mated with our good brood matrons is sure to give us a class of stock that we can confidently recommend to any intending purchaser." Referring to their Collies and Oxford Down sheep the letter says: "In Collies we are expecting two litters, bred from high-class exhibition stock that are splendid workers. We bred and sold a dog, from one of our present females, that was held at a \$25 stud-fee in the United States and it was well patronized at that. In Oxfords we have a few good ones, and we hope to be able to satisfy our customers in this line as well as we have

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## Questions and Answers. Miscellaneous.

### Blacksmithing.

Has a blacksmith got to stop his work of shoeing a team and shoe a mail driver's horse?

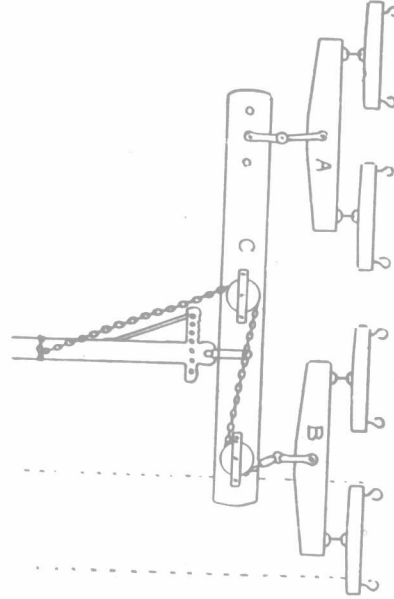
Ans.—No.

### Four horse Evener—Oyster shell Bark Louse.

1. Kindly advise me through the columns of your paper how to construct a four-horse evener for a plow, so the off horse will not travel on the plowed land.

2. I have some two-year-old apple trees which are gradually going back or becoming stunted. The leaves all through the summer were a yellowish-green, and many of them were half brown. The limbs, especially at the forks of the branches, are covered with a sort of gray mass which looks like eggs. I have been told this is oyster-shell bark louse. Kindly prescribe a remedy.  
J. K. C.

Ans.—1. The accompanying illustration represents an evener to be used on a plow. The two lines indicate the furrow where the off horse travels. We cannot vouch for the effectiveness of this construction as we have never used it. It was sent us by a correspondent who claimed that it was all right. C, is a strong doubletree, 5 feet 4 inches long. From the right end to the centre of the first pulley it is 7 inches; from centre of first pulley



to where plow-head clevis fastens, it is 15 1/4 inches; from centre of first pulley to centre of second pulley it is 24 inches. At the left end of the doubletree, C, bore three holes; first one 2 1/2 inches from the end; second hole, 2 inches from the first one, and the third hole, 2 inches farther on. Fasten the left-hand team into whichever hole is found to be best. The chain passing through the pulleys will work more satisfactorily if the links are not too large. One end of the chain is attached to B, and the other one can be wrapped around the beam of the plow at any convenient place. It is usually attached at the coulter, and must be drawn up fairly tight so there will not be too much slack when turning to the left. It is claimed that this evener works without any side draft, but, actually, it is very difficult to get any four-horse evener that will permit the fourth horse to walk in the furrow and yet give a straight draft.

2. Possibly this gray mass on the branches of the trees is the coverings of the oyster-shell bark louse. The lime-sulphur wash, properly applied, will readily control this scale. Two sprayings should be given for the best results, the first at the strength of 1.030 specific gravity, hydrometer reading, or about one gallon of the commercial lime-sulphur diluted to ten gallons with water and applied shortly before or as the buds are bursting; the second at the strength 1.009 specific gravity, or the commercial diluted, one gallon to thirty or thirty-five with water, and applied just after the blossoms have fallen. Cultivate around the trees and fertilize them well, for it is frequently the unthrifty tree that succumbs to this pest.

## Good For Man And Beast

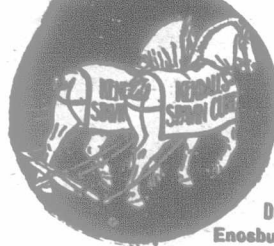
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How two, three cream separators

Cream Separator you need

It will be an investment to skim so butter-fat t The Ontario No. 206 counter-fat good that lose every one knows how been in use

## The Refrigerator

## Questions

Miscellaneous

Cooling  
I am building a house. The cooling feet, and the ice I would like to off part of the ice place where I can for a short time

Ans.—You do an ice-house y If it is one that it might be pos one corner of a room 5 by 6 f and the entrance the cooling room in the wall betw ice-house, both a circulation of a through the sm working on this sary to have the way that the ice by the outside quires a fairly th filled with shavin paper, and severa In this kind of a or shavings are r However, if the an ice-house of pack the ice in so that it can be in water for cool refrigerator might of the cooling principles in the the ice must be the upper part, heavy and des by melting ice but the outlet p to hinder cooled off also. Shavin the best non- but they must is advisable to but little larger requirements for refrigerators have matched lumber inch studding a vening space wi of building paper of lumber on one vantage. For bu first mentioned, used, only there

# Reinforcements for Your Dairy

How about that old separator that you have been thinking of discarding for the past one, two, three, perhaps five, years? Don't you think it is time to replace it with some modern cream separator machinery? The "Made in Canada"

## Standard

Cream Separator will bring reinforcements that you have needed for some time in your dairy to enable you to make a "drive" for larger cream profits.

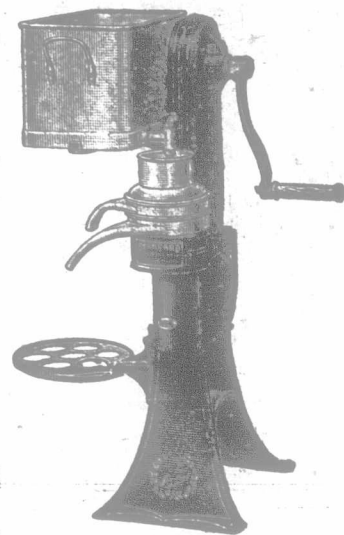
It will bring to you a skimming device that Government Dairy Schools have tested out and proven to skim so close that only one-tenth of a pound of butter-fat is lost in every 1,000 lbs. of milk skimmed. The Ontario Government's Dairy School Bulletin No. 206 considers the loss of one-half pound of butter-fat good skimming. And there are machines that lose even as much as a full pound and more in every one thousand pounds of milk skimmed. Dear knows how much an old obsolete machine that has been in use for years loses. Certainly enough cream,

if it were saved, to soon pay for a modern Standard Cream Separator.

The Standard also will bring to your dairy a real self-oiling system. This machine runs in a bath of oil, the reservoir only requiring to be filled three or four times in a whole year. This saves oil, keeps the machine in perfect running order, and means less attention required.

It will bring, too, a wide open bowl and discs that can be cleaned thoroughly in a minute. It will bring safety, for the Standard's gearing is all enclosed.

It will bring other things, too—easy running, interchangeable capacity, low supply can, instantaneous clutch, flexible neck bearing, etc., etc.



Made in Canada

But these are all described in our latest Cream Separator Catalogue. Send us your name and address, and we will mail you a copy by return post.

**The Renfrew Machinery Co., Limited, Head Office and Works: Renfrew, Ontario**

AGENCIES ALMOST EVERYWHERE IN CANADA

### Questions and Answers. Miscellaneous.

#### Cooling Room.

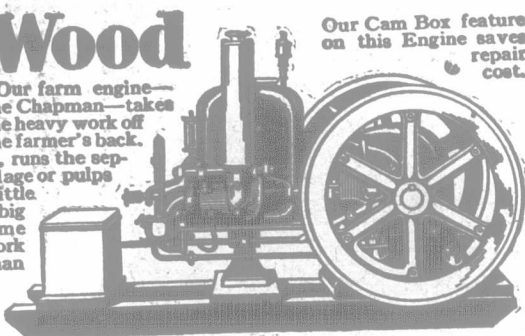
I am building a cooling room and ice-house. The cooling room is 8 by 12 feet, and the ice-house 12 by 12 feet. I would like to know how to divide off part of the ice-house so as to have a place where I could keep meat fresh for a short time in the summer.

J. S.

Ans.—You do not state the kind of an ice-house you propose building. If it is one that is thoroughly insulated it might be possible to partition off one corner of the ice-house, possibly a room 5 by 6 feet would be sufficient, and the entrance could be made from the cooling room. By having openings in the wall between the room and the ice-house, both at the top and bottom, a circulation of cold air will be secured through the small room. Of course, working on this plan it would be necessary to have the walls built in such a way that the ice will not be affected by the outside temperature. This requires a fairly thick wall, with a space filled with shavings, a layer of building paper, and several thicknesses of lumber. In this kind of an ice-house no sawdust or shavings are required around the ice. However, if the intention is to build an ice-house of one ply of lumber and pack the ice in sawdust or shavings, so that it can be taken out and placed in water for cooling milk, etc., a small refrigerator might be built in one corner of the cooling room. The guiding principles in the construction are that the ice must be placed in a tray in the upper part, as the cooled air is heavy and descends. Water formed by melting ice must be drained off, but the outlet pipe must have a trap to hinder cooled air from being drained off also. Shavings packed hard are the best non-conductors for walls, but they must be absolutely dry. It is advisable to have the refrigerator but little larger than the absolute requirements for its work. Home-made refrigerators have been made by nailing matched lumber on each side of four-inch studding and packing the intervening space with shavings. A layer of building paper and another thickness of lumber on one side would be an advantage. For building an ice-house as first mentioned, the same principle is used, only there should be a greater

## Hewer of Wood & Drawer of Water

Our farm engine—the Chapman—takes the heavy work off the farmer's back. It pumps water, saws wood, runs the separator, grinds grain, cuts silage or pulp roots. Very little fuel cost—big saving in time and double work can be done. We will sell you a Chapman with power to operate our grinder, silage blower, wood saw, pump jack, etc. The Chapman is sure to satisfy you. Let us give you full particulars. On request, we will mail our Engine Book and Special Machinery Catalogue and Circulars describing machinery our engines will operate.



Our Cam Box feature on this Engine saves repair cost.

Ontario Wind Engine & Pump Co., Ltd.  
WINNIPEG Liberty St., TORONTO VANCOUVER

## King Segis Pontiac Paul 15940

WE have for sale a few sons of the above bull, ready for service, and whose dams are large heavy-producing cows. Here is an opportunity to get the blood of KING SEGIS and KING OF THE PONTIACS at reasonable prices. Correspondence solicited.

Also Berkshire and Yorkshire Swine  
Larkin Farms Queenston, Ontario

## HOLSTEIN CATTLE

Our present offering is a bull born February 1916. Dam gave 106 lbs. milk a day, sire's dam 116 lbs. a day. Nicely marked and a show bull. We make a specialty in foundation stock.

D. C. FLATT & SON, R. R. No. 2, Hamilton, Ont.

## For Sale---Sons of King Segis Walker

From high-testing daughters of Pontiac Korndyke. Photo and pedigree sent on application.

A. A. FAREWELL, OSHAWA, ONTARIO

## DUMFRIES FARM HOLSTEINS

Think this over—we have 175 head of Holsteins, 50 cows milking, 25 heifers due to calve in the fall and 60 heifers, from calves up to 2 years, as well as a dozen yearling bulls, and anything you may select is for sale. Breeding and individuality the very best. S. G. & Erie Kitchen, St. George, Ont.

**HOSPITAL FOR INSANE, Hamilton, Ont.**  
Holstein bulls only for sale, four fit for service, one being a son of Lakeview Dutchland Lestrangle, and the others from one of the best grandsons of Pontiac Korndyke, and large producing, high-testing R. of P. cows. APPLY TO SUPERINTENDENT.

**Clover Bar Holsteins**  
We are offering at the present time a few young bulls two of which are fit for service, from high testing dams. and sired by Francy 3rd Hartog 2nd, whose two nearest dams averaged 32 lbs. butter in 7 days and 103 lbs' milk per day. Prices reasonable.  
PETER SMITH, R. R. No. 3, STRATFORD, ONT

**Evergreen Stock Farm, High Class Registered Holsteins**  
Place your order early if you expect to get one of those good bull calves from some of the good cows, the only kind we keep. No herd in Canada the same size as ours has produced more top-notches than we have. Come and see us or let us know what you want. Bell Phone.  
A. E. HULET, NORWICH, ONT.

**Riverside Holsteins**—Herd headed by "King Johanna Pontiac Korndyke" a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 156.92 in 30 days—world's record when made. His ten near relatives have official records that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R. of P. cow of Canada was bred here. Choice young bulls for sale.  
J. W. RICHARDSON, R.R. No. 2, Caledonia, Ont.

thickness of shavings. The door of refrigerator should be built similar to the walls.

#### Value of Silage.

I wish to buy some corn out of a silo, the diameter of which is fourteen feet. How much a foot would it be worth?

E. B.

Ans.—The depth of silage is not mentioned. As a rule, silage weighs more per cubic foot near the bottom than it does at the top. However, about 30 pounds per cubic foot is a fair estimation of weight. The value depends somewhat on price of other fodder. Good silage is frequently valued at about \$3.00 per ton, but it is possibly worth considerably more under certain conditions. There will be between 2½ and 3 tons of silage per foot in depth in a silo 14 feet in diameter.

#### Cider Vinegar.

I have four barrels of last fall's cider vinegar sitting out in our yard which has not ripened during this hot summer. It was covered with glass and exposed to the sun all season. Can you tell me what to use to help make the vinegar strong so it can be used?

V. F. MCL.

Ans.—The process of making vinegar is hastened by adding to the cider a quantity of mother of vinegar, a whitish,ropy substance of a mucilaginous appearance which forms in vinegar and acts as a ferment. Secure this substance from a cask of vinegar. It should start fermentation of the cider. When making vinegar it should be kept in a moderate degree of heat and have free access of external air.

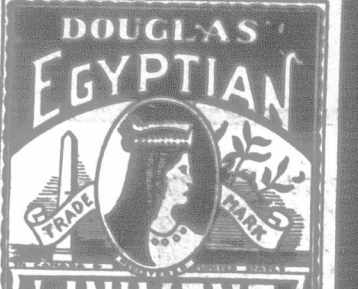
#### Closing a Road.

A road across a piece of private property has been used by the public for about twelve years, can it be closed now, or can the party owning it collect so much a month from one farmer because it's his only way out? This road is in the bush and it's about 60 yards across this property.

H. T.

Ans.—The roadway in question can be closed. The party owning the land over which it runs is quite at liberty to do that, or he may arrange with others, who may wish to travel it (including the farmer mentioned) at a periodical sum for the privilege. Any such arrangement ought, of course, to be in writing and signed by the parties thereto.

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Stop Bleeding at once.  
Removes all Inflammation.  
Prevents Blood Poisoning.  
A Speedy Cure for Thrush.  
For Sale Everywhere.  
Free Sample on Request.

DOUGLAS & COMPANY MFRS.  
MONTREAL ONTARIO

**CREAM**

Where are you shipping now?  
And what are you getting for your cream?  
We want more individual shippers and more men to gather cream for us.  
Write for our proposition.

**Silverwoods Limited**  
LONDON, ONTARIO

**Cream Wanted**

Advancing markets, together with our twenty years' experience, should interest you. We invite your inquiry for particulars.

References:  
Any Banker Any Cream Shipper

**TORONTO CREAMERY CO.**  
Toronto, Ontario

**CREAM WANTED**

Ship your cream to us.  
We pay all express charges.  
We supply cans.  
We remit weekly.  
We guarantee highest market price.

**Ontario Creameries, Limited**  
London - Ontario

**Cotton Seed Meal**

In car lots and L. C. L.  
Write, phone, or wire for prices.

**The CHISHOLM MILLING CO., Limited**  
Toronto, Ontario

**JERSEY BULLS.** For sale—Knoolwood's Raleigh, sire Fairy Glen's Raleigh (imp.), 22 daughters R.O.P.; dam Eminent Honeymoon (imp.) R.O.P. 596 lbs. butter; reserve champion on Island. Capt. Raleigh ready for service, sire Knoolwood's Raleigh, dam Mabel's Post Snowdrop; first as calf, 1914, first Junior Champion, 1915, 2nd 1916 Toronto. Milked 38 lbs. day, 6 per cent. milk, first calf. Ira Nichols, Burgessville, Ont. R.R. No. 2.

**Lakeside Ayrshires**

A few young bulls for sale from Record of Performance dams, imported and Canadian-bred, sired by Auchinbrain Sea Foam (imp.) 35758, grand champion at both Quebec and Sherbrooke. Write for catalogue.

**GEO. H. MONTGOMERY, Proprietor**  
Dominion Express Bldg., Montreal, Que.  
D. McArthur, Manager, Philipsburg, Quebec

**Glencairn Ayrshires** Herd 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 Sta., G.T.R.

**Shorthorns and Leicesters at Willowbank.**

There is perhaps no breeder of pure-bred live stock who uses the columns of "The Farmer's Advocate" to dispose of his surplus, more widely known than Jas. Douglas, of Willowbank Farm, Caledonia, Ontario. Dating back almost as far as No. 1 volume of this paper the Douglas Shorthorns and Leicesters have been among the winners in every live-stock ring throughout the Dominion. Speaking of the herd to-day, after a recent trip to the farm, we are pleased to be able to report it still progressing. It is impossible for any herd to stand still; it must go one way or the other, and Mr. Douglas is far too experienced a breeder to take any chance of standing at ease with a possibility of slipping backward. He attributes his success to the selection and use of good herd sires. Starting with the best of breeding females, it has been comparatively easy to show advancement year after year with the use of the best sires procurable. The present herd sire, "Brown-dale," is only one of several noted bulls that have brought the herd up to Mr. Douglas' ideals. He is, in breeding, a Cruickshank Mina-bred grandson of the renowned Whitehall Sultan, combining, perhaps, more of this breeding than any other sire in America to-day, and in the show-ring has almost an unbeaten record; being practically the undefeated champion of the Western show circuit in 1914 and 1915. His calves, the first in the Douglas herd, are now just coming on and are exceptionally thick, deep-fleshed young sires. A great many of these are from daughters of the former Cruickshank Butterfly herd sire, Roan Chief (imp.). There are, of course, the older breeding matrons, many of which are imported cows and a number of excellent milkers. The entire offering in young bulls at present are from these dams and sired by Roan Chief. There are nearly a dozen young bulls in all, ranging in ages from 10 to 18 months, and, taken all through, they are as good a lot as we have seen together this season. In females there is a wide selection, including a number of choice, thick, young heifers safe in calf to Brown-dale, and others with Brown-dale calves at foot. There are at all times almost one hundred head from which to make your selection.

In Leicesters the selection of rams and shearing ewes is by far the largest it has been for some time. Nearly all are from Mr. Douglas' best imported ewes and got by a Calder-bred, imported ram. If you are a lover of either Shorthorns or Leicesters you can always spend a pleasant day at Willowbank, and will be made welcome.

**Trade Topic.**

**Homeseekers' Excursions to Western Canada.**

The Grand Trunk Railway System issue round-trip, homeseekers' tickets at very low fares from stations in Canada to points in Manitoba, Saskatchewan and Alberta, each Tuesday until October 31st, inclusive, via North Bay, Cochrane and Transcontinental Route, or via Chicago, St. Paul and Duluth, and are good returning two months from date of issue.

Through tourist sleeping cars are operated each Tuesday for Winnipeg, leaving Toronto 10.45 p.m. via Transcontinental Route without change. Reservations in tourist sleepers may be obtained at nominal charge on application to any Grand Trunk Ticket Office. The Grand Trunk Pacific Railway is the shortest and quickest route between Winnipeg, Saskatoon and Edmonton, with smooth roadbed, electric-lighted sleeping cars, through the newest, most picturesque and most rapidly developing section of Western Canada.

Before deciding on your trip ask Grand Trunk Agents to furnish full particulars, or write C. E. Horning, District Passenger Agent, Toronto, Ont.

Young Man—"So Miss Ethel is your eldest sister. Who comes after her?"  
Tommy—"Nobody ain't come yet, but pa says the first 'feller' that comes kin have her."

**Big Ben**



**3 a.m.—**  
**He Flags the Sleeper**

**A**T three-fifteen the call boy comes, to wake the railroad man. Big Ben was on the job first. He started the day at three.

The railroad boys all like Big Ben. He helps them make the grade. He calls "All aboard!"—they're out of bed—plenty of time and a grin—signals set against a grouch—all cheery clear ahead.

Big Ben will run your day on schedule time.

You'll like Big Ben face to face. Seven inches tall, spunky, neighborly—down-right good.

Big Ben is six times factory tested. At your dealer's, \$2.50 in the States, \$3.00 in Canada. Sent prepaid on receipt of price if your dealer doesn't stock him.

Westclox folk build more than three million alarms a year—and build them well. All wheels are assembled by a special process—patented, of course. Result—accuracy, less friction, long life.

La Salle, Ill., U. S. A. **Western Clock Co.** Makers of Westclox  
*Other Westclox: Baby Ben, Pocket Ben, America, Bingo, Sleep-Meter, Lookout and Ironclad.*

**Gurney-Oxford GOLDEN NUGGET**



**\$34.25** Freight paid as far West as Ft. William 100 days trial for satisfaction.

Steel range value possible only from the largest makers of stoves, furnaces, etc. in the Empire. Our famous divided flues, exclusive fire-box, scientific oven make it a splendid cooker on very little fuel.

Complete with six 9" covers—20" oven, right hand reservoir, warming closet, ruggedly strong; weight 340 lbs. Put one in your kitchen and enjoy real comfort.

**Catalogue with Prices—FREE**

Our new low factory-fixed prices save you money. Send for "The Stove Problem Solved," a splendid guide to stove buying, shows hundreds of styles and sizes of ranges, heaters, feeders, etc. Write to-day for it.

**THE GURNEY FOUNDRY CO. LIMITED**  
Dept. 823 Montreal Hamilton Toronto Winnipeg Calgary Vancouver

**Ayrshires and Yorkshires**

Bargains on Aug. 1916. Bull calves, R.O.P. dams. Others from 6 months to 2 years old. All sired by our grand champion bull, Toronto, 1916. Nov. and Dec. freshening cows. Females all ages. Select now and get the choice July 1916 pigs at special prices. Write us, or call and see.

**ALEX HUME & CO.,** Campbellford, Ontario, R.R. No. 3

**THE CITY VIEW HERD OF PRODUCING AYRSHIRES**

We have three good young bulls fit for service, from Record of Performance cows and sired by bulls from R.O.P. dams; also pure-bred Berkshire pigs ready to wean, for quick sale.

**JAMES BEGG & SON** R. R. 1, St. Thomas, Ont.

**YOUNG Brampton Jerseys BULLS**

For the next fortnight we are making a special offering on young bulls, bred from the highest producing families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.P. records save one. Females all ages, also for sale. **B. H. BULL & SON, Brampton, Ont.**

**THE WOODVIEW FARM JERSEYS** Canada's Most Beautiful Jersey Herd

Present Offering—Some high-class bull calves ready for service, including grand champion bull at last Western Fair and his full brother; also cows and heifers. State distinctly what is wanted if writing.

**Jno. Pringle, Prop.** We work our show cows and show our work cows

**CANADA'S OLDEST JERSEY HERD** Has for sale several exceptionally choice young bulls of serviceable age, bred on both sides with official and high producing blood. Also yearling heifers and heifer calves.

**D. DUNCAN & SON, TODMORDEN, R.M.D.,** Duncan, Sta., C.N.O.

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**For Sale 30 Pura**

\$15 each, including freight. Few ewes at moderate prices and Ayrshires, all ages.

**H.E. Williams, Sunnyside**

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Champion Oxford flock of all ages for sale. **E. Barbour & Sons**

**LINCOLN SH**

few ewes and ewe lambs, ready for sale.

**C. A. POWELL, R.R. 1**

**SHRO**

Ram lambs

**E. E. LUTON, R.R. 1**



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- "Eastlake" Galvanized Shingles.
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We guarantee the best for your money. Our goods have been tried and proven superior for over 30 years.



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Best 2-inch Wire-lined Suction Hose in 15-, 20- and 25-ft. lengths. Our price, 37c. per ft.

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We are buyers of ALSIKE, RED CLOVER, ALFALFA, WHITE BLOSSOM, SWEET CLOVER, and TIMOTHY Seed. If any to offer send samples and we will quote you our best price F.O.B. your station.

**TODD & COOK** Seed Merchants Stouffville, Ont.

**For Sale** 30 Pure Shropshire Ram Lambs, born 1st part of April; from \$10 to \$15 each, including pedigrees. Young ewes and ewe lambs at moderate prices. Also pure Jerseys and Ayrshires, all ages, both sexes. H.E. Williams, Sunnylea Farm, Knowlton, Que.

## Tower Farm Oxfords

Champion Oxford flock of Canada. Choice Oxfords of all ages for sale. Prices reasonable. E. Barbour & Sons R.R. 2, Hillsburg, Ont.

**LINCOLN SHEEP** Shearling rams and few ewes and ewe lambs; also some registered Shorthorn bulls, reds and roans. Prices reasonable. C. A. POWELL, R. R. No. 1, Ettrick, Ontario

## SHROPSHIRE

Ram lambs and breeding ewes. E. E. LUTON; R. R. 1, ST. THOMAS, ONT.

Every Canadian farmer knows that most of the wheat he grows eventually finds its way to the Old Country. Since the beginning of this great war, he also knows that owing to the British navy every German and Austrian merchant boat has either been captured, interned or is afraid to put to sea from its home port, and that the German navy has been, and is, absolutely powerless to help them. Consequently the farmers think the British and ally mercantile ships trading to the Dominion and colonies can continue their usual work and food flows into Britain as usual, with, of course, some extra expense inseparable from a big war. To a great extent this is true, but owing to every man and horse, rifle and gun, cartridge and shell, motor bicycle and heavy lorry, every eatable, supplies of a hundred thousand sorts having to be transported across oceans and the Channel, not only for ourselves but our allies also, and the enormous supplies that have to reach the navy in different seas, thousands of merchant boats have had to be taken over by the Admiralty (who administer the transport), therefore leaving boats in greatly insufficient numbers to carry the vast amount of freight offering them. Thus we have the demand greater than the supply. Competition for cargo space on these boats being keen, the highest bidder naturally gets his cargo shipped, and so sets the prices. To give some idea of how freight rates have risen, the two following examples will be sufficient:

In July, 1914, grain from Montreal to Liverpool was carried for six cents per bushel, to-day the freight is 30 cents per bushel. In July of the same year the freight on maize from the Argentine to the British Isles was \$4.00 per ton, to-day it is \$40. Not only is it from these two countries that exorbitant rates prevail, but Australia, New Zealand, India, South and West Africa likewise suffer. From all these countries food is the chief article that is being exported to the Old Country. The cost of freight is, of course, added to the wheat, flour, sugar, meat or whatever it is, which means the consumer ultimately pays for it. Although it is not the sole reason it is generally accepted that the freight is chiefly responsible for the abnormal prices of necessities that prevail to-day. In many cases food profiteers have and are having an innings. In no country are they free from these parasites, men who are only too ready to take advantage of their country's misfortune, and by their nefarious practice inflict untold hardships on the poorer people. There is also no possible doubt that the shopkeepers put the price on whenever they have an opportunity.

To meet this extra expense of living, wages and salaries have been increased and a war bonus granted. Munition makers, arsenal and dockyard hands, miners and thousands of industries in connection with the war especially were never so well paid, even the farm hands have had their wages increased. With millions of men in the army and navy there is work for every one who is willing to work, consequently there is a great decrease in poverty, yet a great number feel the pinch of this war—old age pensioners, people with small set incomes, and especially those living in the open coast towns of Norfolk, Suffolk, Essex, and Kent, where the dastardly Huns rejoice in dropping bombs from Zeppelins. A great many of the residents of these towns derive their living from summer visitors, but owing to raids the visitors have gone elsewhere. Many of the magnificent gifts of flour, meat and money from Canada and Australia were sent to these coast towns. Gifts that will ever be remembered. Every one speaks of them as magnificent, they went "right home." What the Dominions have accomplished in this war has done more to educate the masses of what the Empire really is than they would have learnt in a life-time.

To give the readers of "The Farmer's Advocate" an idea of the prices prevailing in the Old Country, the following are the market quotations for the last week in August:

## What's the Value of Your Life?

Every man's life has a certain definite commercial value based upon the income he is able to earn.

What is the value of your life? Let us assume it to be \$15,000. This amount at 6% will produce a yearly income of \$900. So you see \$15,000 is not an excessive valuation.

Now, if you owned a building worth \$15,000, would you insure it to indemnify yourself against its loss by fire? Of course, you would. And yet the building may never burn.

But have you taken the same precaution to protect your dependents against the loss they would sustain in the cutting off of your life by death? And sooner or later that is sure to happen.

If your life is not insured for the value you place upon it, write to-day for our free booklet "The Creation of an Estate." Tomorrow you may be uninsurable.

## THE IMPERIAL LIFE Assurance Company of Canada

Head Office, Toronto

Branches and Agents in all important centres

A useful 76 page memorandum book will be sent free to those who ask for it.

## The Old Original Summer Hill Farm

WHERE YOU'LL ALWAYS FIND A

## First-class Oxford

I have eighty head of very fine yearling ewes for sale, also a number of yearling rams for show purposes or flock headers, fifty head of ram lambs and fifty head of ewe lambs, all bred in the purple. All recorded and first-class individuals. No grades handled except by order.

## PETER ARKELL & CO., Proprietors

Mildmay, G.T.R. Stn. Box 454 Teeswater, C.P.R. Stn.

VISITORS WELCOME

H. ARKELL W. J. ARKELL F. S. ARKELL

## Summer Hill Stock Farm

Largest and oldest importers and breeders of

## OXFORDS

in Canada. Look up our show record, it will give you an idea of the kind of Oxfords we have for sale.

**PETER ARKELL & SONS, Proprietors, Teeswater, Ont.** Customers, beware of imitations of this advertisement.

## Oxford and Hampshire Down Sheep

Farnham Farm The oldest established flock in America

Having quit the show ring we hold nothing back. Our present offering is a number of superior yearling and two-shear rams for flock headers, a carload of yearling range rams, a hundred first-class yearling ewes; also a fine lot of ram and ewe lambs of 1916.

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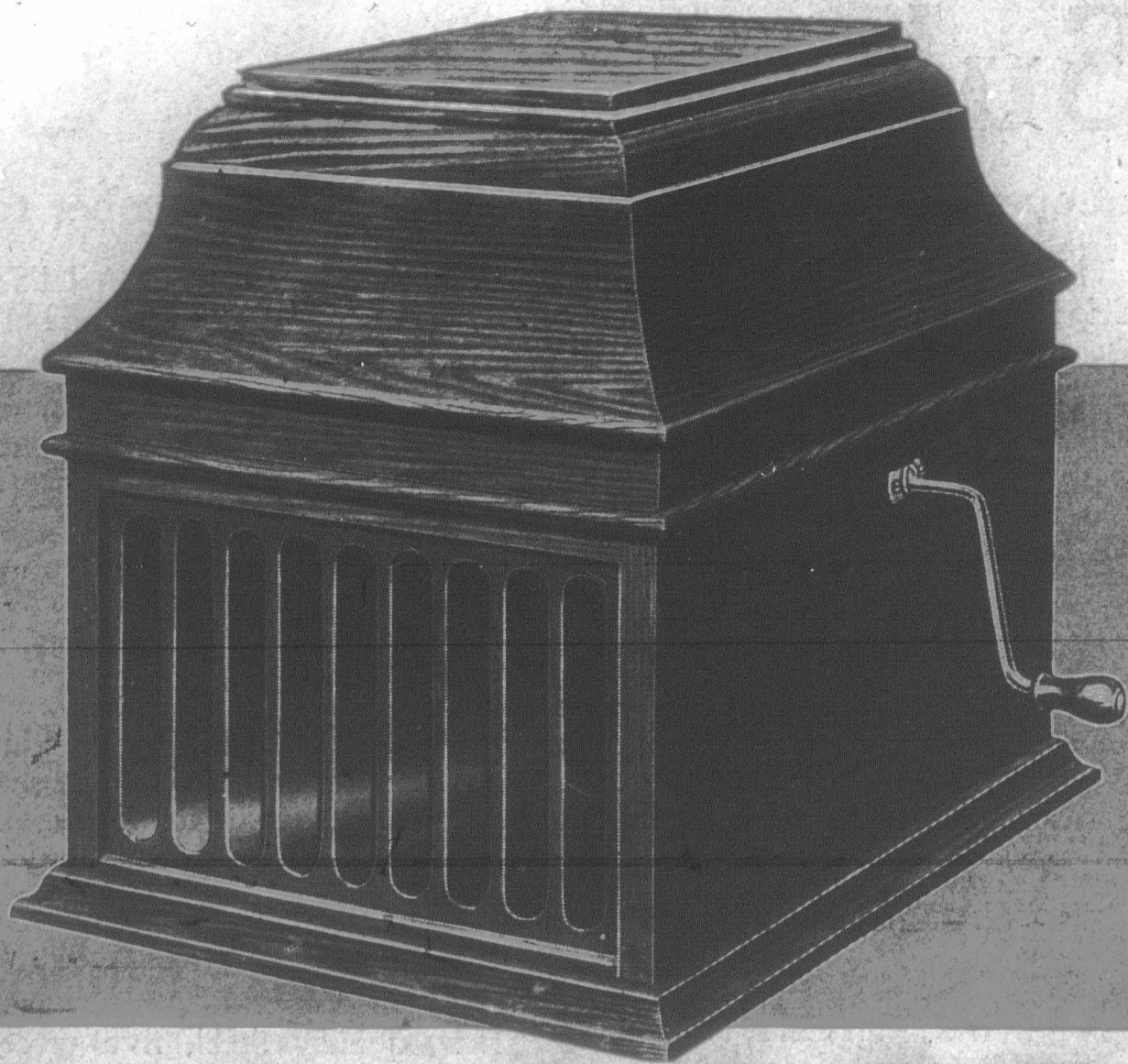
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