

R 3 1914

Farmer's Advocate

and Home Magazine

Buy and Sell
Commodities
Dept. of Agriculture



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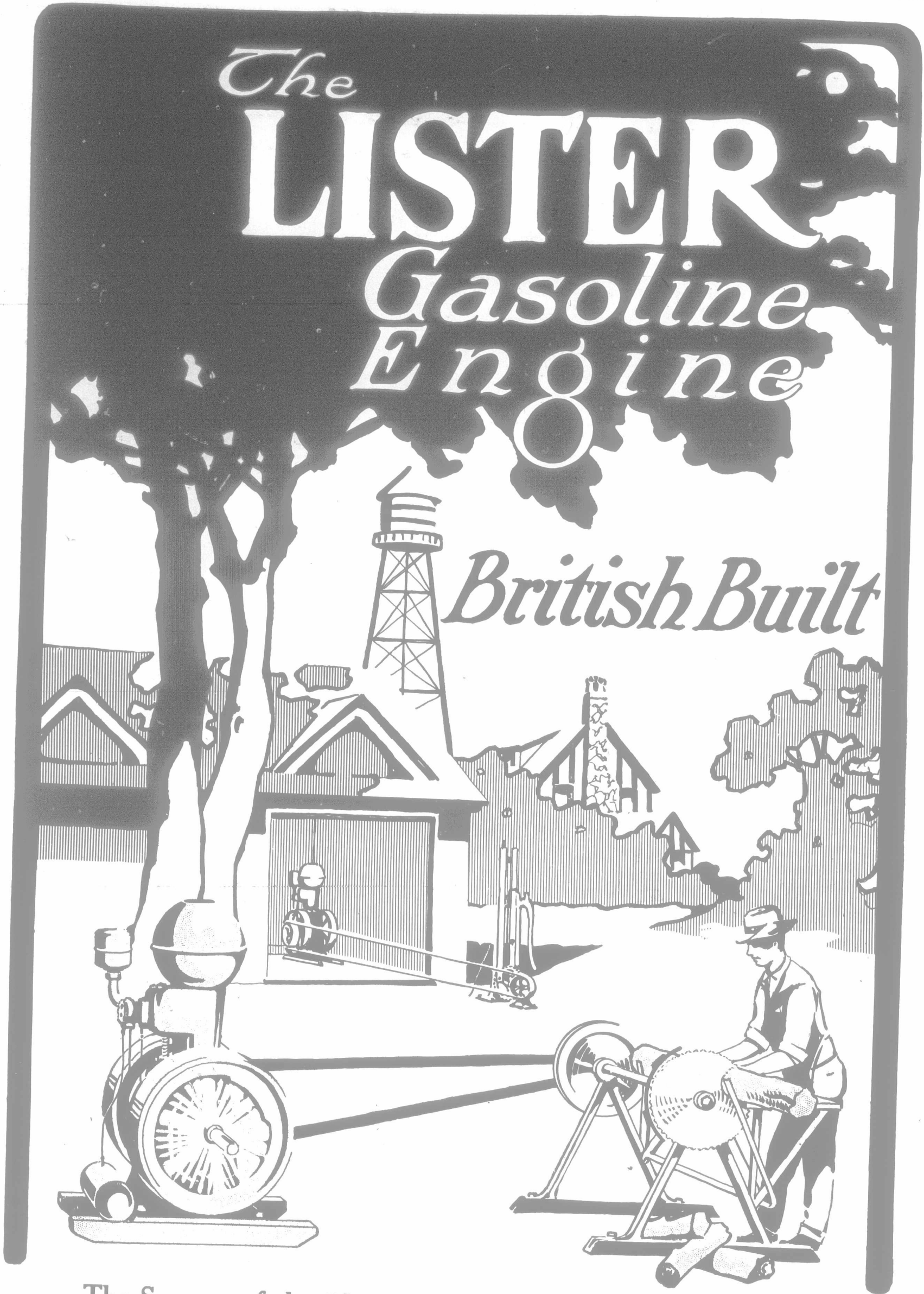
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Norm Price

Christmas number

The
LISTER
 Gasoline
 Engine

British Built



The Success of the "Lister" Engine is Based on QUALITY

Above is a reproduction of the cover of our catalogue "B." Write for it. It gives particulars of Lister Engines, Grinders, Lighting Plants, Saw Frames, Pumping Outfits, Milking Machines and Melotte Cream Separators, Melotte Friction Pulleys, etc. A postal will bring it. Write to:

R. A. LISTER & CO., LIMITED

Branches at Winnipeg, Man., St. John, N. B., Camrose, Alta., and Calgary, Alta.
 Works: Dursley, England.

Office and Showrooms: 58-60 Stewart St., TORONTO, ONT.





Making Stable-Cleaning a Snap for a Boy!

Not a Hard Job Now

The BT Manure Carrier has made stable-cleaning one of the easiest jobs on the farm. The boys like the work with the big BT to help them. They think it lots of fun to run the carrier along the overhead track into the barn, throw in almost half-a-ton of manure and then run out in a minute and dump into the sleigh or on the pile.



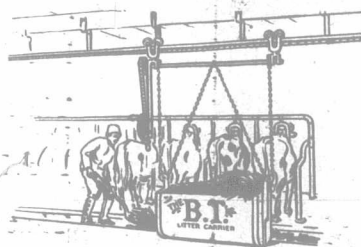
The Old, Back-breaking Way.

Stable-cleaning used to be a very hard job. That was when the wheelbarrow was used. There was always a lot of heavy lifting and a lot of hard wheeling. In winter time the snow piled up high and deep paths had to be dug through the yard. These drifted full again in a few days, so it was always a long hard job to keep the manure a good distance from the barn. It was even worse in the muddy spring, when you'd sink to your ankles in the yard, and the wheelbarrow simply wouldn't budge.

It was hard to keep the stable really clean with a wheelbarrow, for the manure simply would drip out and slop over as it bumped and jolted through the yard. On many a cold day the stable was not cleaned at all, and the manure was allowed to accumulate close to the barn, where it rotted the woodwork and where the fumes injured the health of the stock and the harness and implements.



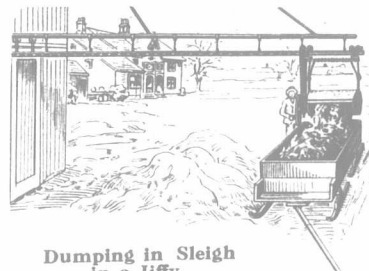
Barn Drudgery Abolished



Loading Half-a-ton of Manure.

The BT Manure Carrier has abolished with all this. A small boy can push the biggest load, for all the weight comes on the overhead track. It doesn't matter how much snow or mud there is in the yard, for the BT Carrier glides right over them. The work is done in a fraction of the time it used to take, because the Manure Carrier takes out four wheelbarrow loads at once. Every drop of liquid manure can be scooped into the water-tight bucket and run out to the sleigh or pile. When the manure is dumped into the sleigh it can be taken right from the barn to the fields with only a single handling, and all the heavy work of getting the manure out in the spring is spared.

BT Carrier Built for Hard work



Dumping in Sleigh in a Jiffy.

To carry so many heavy loads and to stand such constant usage, a manure carrier has to be strongly made. Strength is the foremost quality for the big BT Carrier. Every part is built three times as strong as it need be to do the work to give lasting satisfaction as long as you will need the outfit. The first BT Carriers installed seven and eight years ago are doing the work as well as ever. Since then almost 10,000 BT Outfits have been installed by Canadian farmers alone, and in some sections the Big BT has become so popular that every farmer has one of them.

The Big BT Raises Easily



You raise the bucket of the BT Carrier by turning the hand-wheel windlass. This is placed some distance behind the bucket, so no manure can get on it. Double purchase is used in lifting, so that heavy loads raise easily. The wide rim of the hand-wheel also gives a big additional purchase. There are no worm gears to waste the power, and the windlass works without noise or rattle.

The bucket can be elevated so that the bottom is within three feet of the track. The carrier can thus be run right over any pens in the barn, over the highest drifts, and can be dumped on the top of the loaded sleigh-box or on a high pile in the yard.

Popular Friction Brake on the BT

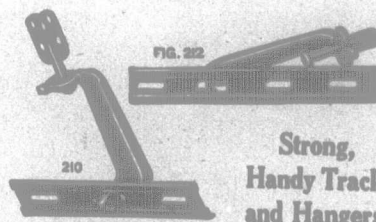
To lower the bucket of the BT Carrier you simply touch the brake and the carrier descends by its own weight — you don't have to waste time windlassing it down. A little pressure on the brake regulates the speed of the descent. The brake also prevents the loaded bucket slipping back as you elevate it. It holds the bucket at any height you wish.

Runs Smoothly on the Track

You run the BT Carrier out of the barn by pushing on the handwheel windlass.

This is solid—you do not touch the loose bucket at all—so the carrier runs along steadily and none of the manure is spilled out.

The track is built in the form of an I-beam, with a smooth, round edge to allow the track wheels to run easily. The edge is so thin that no ice or snow can collect upon it.



Strong, Handy Track and Hangers

While quite narrow, the track is two full inches deep, so that it will stand a strain of 2,000 pounds at any point.

It can readily be bent around curves without heating or bent to suit the passages.

The hangers simply have to be buttoned on, and there are no bolts or nuts to tighten. The whole outfit can quite easily be erected in a few hours.

Send for Free Book

Find out more about the BT Carrier before a single day passes. The snow will soon be drifting deep into the barnyard, and you will have the same old drudgery over again digging paths, cleaning the stable with a wheelbarrow and wasting time morning and night.

It won't cost you a cent to get the book. We'll send it free to anyone who will fill out and mail the coupon. There is much interesting information in it about Manure Carriers, Feed Carriers, Feed Trucks and Milk Can Conveyors, best methods of installing these outfits, and fine photos showing how they save work in other barns. Every farmer who keeps cows, or has pigpens, calf-pens or box-stalls to clean should study the book. Send Coupon to

BEATTY BROS., LIMITED
1591 Hill St.
FERGUS, ONT.

Send Coupon for this Free Book

To Beatty Bros. Limited
1591 Hill Street,
Fergus, Ont.

Send me without charge this illustrated book about Manure Carriers, Feed Carriers, Feed Trucks, Milk Conveyors, best methods of erecting Manure Carrier outfit in barn, etc.

Are you thinking of putting in a Manure Carrier?.....

If so, when?.....

Your Name.....

P.O.....

Prov.....

ONTARIO

The Banner Province of the Dominion of Canada

IS WHERE YOU SHOULD SETTLE

WHY?

Because Ontario Offers Unexcelled Opportunities for Settlement or Investment



A Field of Grain in New Ontario

AGRICULTURE

Do You Know

That Ontario produces 75% of all fruits grown in Canada?

That Ontario offers suitable soil at low prices with no need for irrigation for fruit growing or farming?

That the field crop of Ontario is nearly 50% of the whole crop of Canada?

That in dairying and raising pure-bred stock Ontario leads all the Provinces?

That Old and New Ontario offer improved farms with all conveniences at reasonable prices?

That the fertile lands of New or Northern Ontario, procurable free and at a cost of 50c. per acre, are already producing grain and vegetables second to none in the world?

MANUFACTURES

Cheap sites, electric power supplied under Government organization at cost, good transportation facilities, favorable labor and market conditions. These are the advantages which should interest manufactures.



MINERALS

The mineral resources of Ontario cover almost the entire list of metallic and non-metallic substances, with the exception of coal. The principal metals are silver, nickel, iron, gold and copper. The total value of the various products in 1912 was \$48,341,612, showing an advance over 1911 of \$6,364,815.



Part of the Monteith Experimental Farm, Monteith, Ontario

Let us tell you all about Ontario in our hand-book, which may be had free of charge on applying to:

H. A. MACDONELL

Director of Colonization, Parliament Buildings
TORONTO, ONTARIO

HON. JAS. S. DUFF

Minister of Agriculture, Parliament Buildings
TORONTO, ONTARIO



28 "Service" Branches throughout Canada

Canadian Consolidated Rubber Co., Limited
Montreal, P.Q.



THIS CHRISTMAS,
GIVE USEFUL PRESENTS AND SEE
THAT THEY WERE "MADE IN CANADA."

WHY NOT GIVE YOUR WIFE ONE OF OUR
"DIAMOND" HOT-WATER BOTTLES?

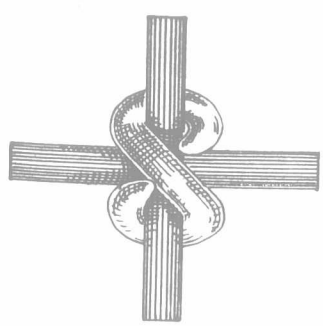
THEY ARE WARRANTED FOR TWO YEARS.
YOUR DRUGGIST HAS THEM, OR CAN EASILY GET ONE FOR YOU.



Canadian Consolidated Rubber Co., Limited
Montreal, P.Q.



28 "Service" Branches throughout Canada



ANTHONY FENCE

A CHAIN IS NO STRONGER THAN ITS WEAKEST LINK.

Our LINE Wire is made from No. 9 wire) ALL
Our STAY Wire is made from No. 9 wire) No. 9 WIRE
Our TIE Wire is made from No. 9 wire) THROUGHOUT

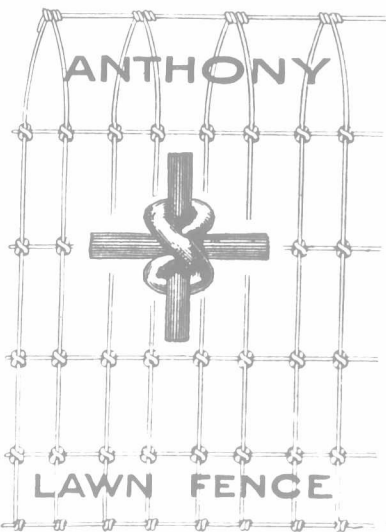
From top to bottom and end to end the ANTHONY Fence is the same. And all bound together with the neatest, strongest and most compact tie on any wire fence.
The ANTHONY Fence will NOT bend down at the top or roll up at the bottom, but stands perfectly erect.

The ANTHONY Galvanized Steel Fence Post

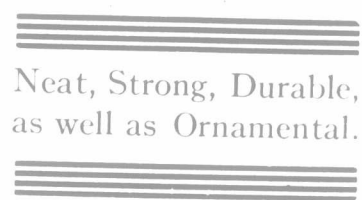
Here is a post that will last as long as your fence.

Does not require stapling, and can be driven in the ground.

Can be used with any make of fence.



The ANTHONY LAWN FENCE Made From All No. 9 Wire Thoroughly Galvanized

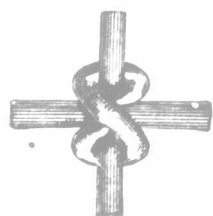


Neat, Strong, Durable, as well as Ornamental.

For the Church, School, Cemetery and the Home

IF YOUR DEALER DOES NOT HANDLE THE ANTHONY PRODUCTS, WRITE US DIRECT.

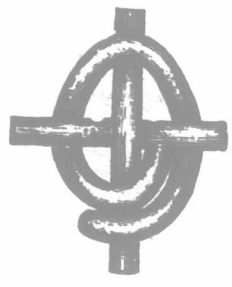
The Anthony Wire Fence Co. of Canada, Limited
Walkerville, Ontario



Wire Fence Prices To be Advanced Jan. 15th, 1915

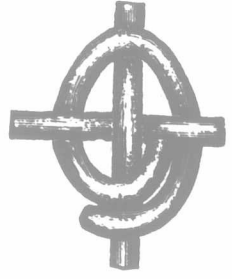
DIRECT from FACTORY to FARM PREPAID

Made in Canada



The SARNIA FENCE CO.,

Sarnia, Ontario **Limited**



Buy Sarnia Fence **NOW** before the Prices advance. Owing to the raise in the price of wire all styles weighing 11 lbs. or over advance 2c per rod, and all lighter fences 1c per rod. **MAIL US YOUR ORDER TO-DAY.**

Sarnia fence is sold direct from factory to farmer, cutting out all agents commissions, dealers profits and giving you your fence at first cost.

Sarnia fence is made in what is conceded by the best industrial experts, to be the best equipped and the most economical fence factory in America.

The enormous amount of material that passes daily through our factory has resulted in a most economical system of handling. We can handle our present large tonnage to a better advantage to-day, than we could our small tonnage three years ago.

Combining these features. Our Direct selling Policy—Our low cost of Manufacturing—Our absolute guarantee—and the fact that we are not

connected in any way with a combine for the elimination of competition, we believe you will give us credit for being in a position to sell you the best fence it is possible to make at the lowest cost.

Sarnia fence is the best known fence in the Dominion of Canada to-day, which is due largely to the fact that our fence has lived up to every claim we have made for it. From the first we have used a most rigid system of inspection, that insures our customers of getting the most perfect fence possible.

We buy our wire on the open market of the world, and our business is of such a tremendous volume that we are in a position to demand the best. Our wire is galvanized to the highest possible standard, and is

all full government gauge No. 9 wire.

Our policy is to sell the farmers of Canada, the best fence it is possible to make at the lowest possible cost, and our fence for the season of 1914 (our customers will vouch for us) is the best Dollar for Dollar value that has ever been offered in the history of the fence business, in the Dominion of Canada.

For the coming season we are making a feature of service, and have added to our equipment so that now we have a daily capacity of 150 miles of finished fence every ten hours. We are going to carry an extra large stock throughout the entire season and this with our increased capacity will enable us to ship all orders the day they are received.

Stop for one minute and think what price you were compelled to pay for fence before the Sarnia Fence Company came into the field and in recalling old prices, think where they would go if our competitors could get rid of us. For the past four years, we, with the support of the farmers, have managed to keep the price of fence down, and with your further assistance we will continue to do so. We want your order whether for one bale or a carload.

Without the enthusiastic support the farmers gave us three years ago the Government, in all probability would have put the fence sizes of wire on the dutiable list, and placed a bounty on all steel produced in Canada. Either one of these would mean the return of the old prices of five years ago.

WE SET THE PRICE, OTHERS DEVOTE THEIR ENERGY TO TRY TO MEET OUR PRICES.

	PRICE Less than carload in Old Ontario	PRICE Less than carload in New Ont., Que., Mar. Provinces
5-40-0 HORSE AND CATTLE FENCE. Has 5 line wires, 40 in. high, 9 stays to the rod, all No. 9. Hard Steel wire, spacing 10, 10, 10. Weight per rod 6½ lbs. Price per rod freight prepaid.	18c	20c
6-40-0 HORSE AND CATTLE FENCE. Has 6 line wires, 40 in. high, 9 stays to the rod, all No. 9. Hard Steel wire, spacing 7, 7, 8, 9, 9. Weight per rod 7½ lbs. Price per rod freight prepaid.	21c	24c
7-40-0 HORSE CATTLE AND SHEEP FENCE. Has 7 line wires 40 in. high, 9 stays to the rod, all No. 9. Hard Steel wire, spacing 5, 6, 6, 7, 7½, 8½. Weight per rod, 8½ lbs. Price per rod, freight prepaid.	23c	26c
7-48-0 HORSE AND CATTLE FENCE Has 7 line wires, 48 in. high, 9 stays to the rod, all No. 9. Hard Steel wire, spacing 5, 6, 7, 9, 10, 11. Weight per rod, 9 lbs. Price per rod, freight prepaid.	23c	26c
8-40 GENERAL STOCK FENCE. Has 8 line wires, 40 in. high, 12 stays to the rod, all No. 9. Hard Steel wire, spacing 3, 4, 5, 6, 7, 7, 8. Weight per rod, 10½ lbs. Price per rod, freight prepaid.	28c	31c
8-48 GENERAL STOCK FENCE. Has 8 line wires, 48 in. high, 12 stays to the rod, all No. 9. Hard Steel wire, spacing 4, 5, 6, 7, 8, 7, 9. Weight per rod, 11 lbs. Price per rod, freight prepaid.	29c	32c
9-48-0 GENERAL STOCK FENCE. Has 9 line wires, 48 in. high, 9 stays to the rod, all No. 9. Hard Steel wire, spacing 3, 4, 5, 6, 8, 8, 9. Weight per rod, 11 lbs. Price per rod, freight prepaid.	29c	32c
9-48-0-S SPECIAL HORSE AND CATTLE FENCE. Has 9 line wires, 48 inches high, 9 stays to the rod, All No. 9 Hard Steel wire. Spacing 6, 6, 6, 6, 6, 6, 6. Weight per rod, 11 lbs., price per rod.	29c	32c

NOTE—All Fence put up in 20, 30 and 40 rod rolls. Barb wire prices on application.

GUARANTEE

We guarantee our fence to be made from the best galvanized hard steel wire, both stay line wire and knot, and to be as perfectly woven as any Fence on the Market.

We also make special fence according to your specifications any height up to 8 feet.

PLEASE NOTE—Quotations to other points in Canada, Newfoundland, and United States on request. Eastern Canada customers, please note:—

Carload prices on shipments of 24,000 lbs. or over. We pay freight on all Railroads with the exception of Electric lines and steamship lines.

Should you wish to take advantage of these prices and not wish your fence to go forward we willingly store your fence in our warehouse until such time as you may require it. Remit direct to Sarnia Fence Company Ltd. by P. O. Order, Money Order, or Bank Draft to day.

CASH WITH THE ORDER SAVES EXPENSE AND YOU GET THE BENEFIT OF THE SAVING IN THE PRICE.

	PRICE Less than carload in Old Ontario	PRICE Less than carload in New Ont., Que., Mar. Provinces
9-48 GENERAL STOCK FENCE. Has 9 line wires, 48 in. high, 12 stays to the rod, all No. 9. Hard Steel wire, spacing 3, 4, 5, 5, 6, 8, 8, 9. Weight per rod 12 lbs. Price per rod, freight prepaid.	31c	35c
10-50 HORSE, CATTLE, SHEEP AND HOG FENCE. Has 10 line wires 50 in. high, 12 stays to the rod, all No. 9. Hard Steel wire, spacing 3, 3¼, 3½, 4¾, 5½, 6, 8, 8, 8. Weight per rod, 13¼ lbs., per rod, freight prepaid.	33c	37c
11-52 HORSE, CATTLE, SHEEP AND HOG FENCE. Has 11 line wires 52 inches high, 12 stays to the rod, all No. 9. Hard Steel wire, spacing 3, 3¼, 3½, 4¾, 5½, 6, 6, 7. Weight per rod, 14½ lbs. price.	37c	40c
9-52-0 HORSE, CATTLE, SHEEP AND HOG FENCE. Has 9 line wires, 52 inches high, 9 stays to the rod. All No. 9 Hard Steel wire, spacing 4, 4, 5, 5½, 7, 8½, 9, 9. Weight per rod, 11¾ lbs. Price per rod.	30c	32c
15-50 P STOCK AND POULTRY FENCE Has 15 line wires 50 in. high, 24 stays to the rod, top and bottom. No. 9 Filling 12 Hard Steel wire, spacing 1¾, 1¾, 1¾, 1¾, 2, 2, 2½, 3, 4, 5, 5, 6, 6, 7. Weight 12 lbs. Price per rod, freight prepaid.	37c	40c
WALK GATE, 3½ x 48, Freight paid.	\$2.50	\$2.75
FARM GATE, 12 x 48, Freight paid.	3.75	4.00
FARM GATE, 13 x 48, Freight paid.	4.00	4.25
FARM GATE, 14 x 48, Freight paid.	4.25	4.50
FARM GATE, 16 x 48, Freight paid.	4.75	5.00
STAPLES GALVANIZED, 1¼ in. per box of 25 lbs., freight paid.	.75	.80
BRACE WIRE, No. 9. Soft, per coil 25 lbs. Freight paid.	.75	.80
STRETCHER, All iron top and bottom, draw very heavy tested chain, extra single wire stretcher and splicer, the best stretcher made at any price, freight paid.	7.50	8.00

WINDSOR

Windsor Salt is made in Canada in the most modern Salt Works on the North American Continent.

One shot doesn't destroy a fortress. One man doesn't make an army corps. One 5c. purchase doesn't keep a factory open. But—a hail of shots ruins the fortress. Man after man makes an army. And hundreds and hundreds of purchases of

"MADE IN CANADA"

goods will keep Canadian factories running—give employment to thousands of Canadian workmen—and enable the Canadian farmer to get better prices for his crops. No matter how small the purchase demand "Made In Canada" goods.

Practically every dealer in Canada sells Windsor Salt because practically everybody uses it.

CANADIAN SALT CO., Limited
WINDSOR, ONTARIO

SALT

SYDNEY BASIC SLAG

THE FERTILIZER FOR ONTARIO FARMERS

A Word To Those Who Are Already Using Fertilizers :

Our advertisements have been appearing week after week with a view to getting you to use **Sydney Basic Slag** on your farm. If you have already used fertilizers you know their value, and no argument is needed to prove that they pay to use. All that concerns you now is to discover where you can buy the article that will give you the best return at the lowest cost, and that is where we come in.

Sydney Basic Slag applied pound for pound against any other fertilizer you have been using will give you at least as good results at a cost of about \$10 per ton less money.

Is it not worth your while to put this statement to the test? Hundreds of the best Ontario farmers who have used **Sydney Basic Slag** for the last two seasons can testify as to its truth. Perhaps if you write us we can give you the name of a farmer in your own neighborhood who has used our goods.

A Word to Those Who Have Not Yet Used Fertilizers :

Now is the time to begin. The food production of Europe will be seriously curtailed in consequence of the war, and high prices are bound to prevail for the next few years. Here is an opportunity for the Ontario farmer to combine profit with patriotism. He can render valuable assistance to the Motherland and her allies by increasing his production of foodstuffs, and the use of **Sydney Basic Slag** means a bigger yield per acre on all his crops.

If we have no agent in your district, let us send you a ton direct from the factory, or better still, if you think you could place a carload of 20 tons among your neighbors, write us at once, and we will instruct our General Sales Agent to give you a call and talk the matter over.

Descriptive pamphlets giving all particulars on application to :

The Cross Fertilizer Company, Sydney, Nova Scotia

MIXED FARMING IN CANADA



MIXED farming in Canada is the one business that never fails the conscientious worker. Small annual payments will purchase a large improved farm in any one of the nine provinces, where all kinds of grains,

vegetables and fruits will thrive abundantly; where horses, cattle, sheep and pigs can be bred successfully, and where poultry and eggs, butter and honey can be depended upon to help swell the farmer's bank account.



CANADA is exceptionally suited to the growing of wheat, oats, barley and flax, last season about 700,000,000 bus. being harvested. A large percentage of these were raised on land given away as Free Home-

steads in the Prairie Provinces. These 160-acre farms are also being utilized for pasturing dairy cattle, the increase in the western city population creating a demand for milk and butter that more than keeps pace with the supply. In Canada no one is ever too poor to become rich!



J. BRUCE WALKER

Commissioner of Immigration, WINNIPEG, MAN.

For illustrated literature or advice, write to:

W. D. SCOTT

Superintendent of Immigration, OTTAWA, CAN.

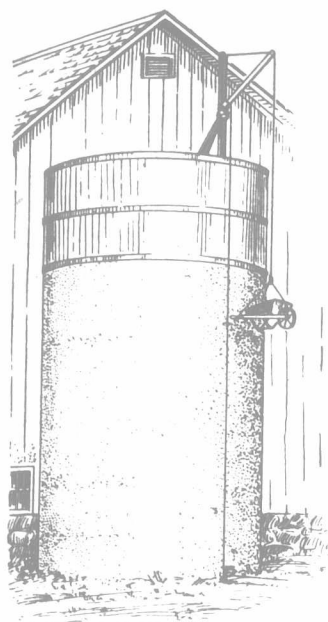
J. OBED SMITH

Assistant Superintendent of Emigration
11-13 Charing Cross LONDON S. W., ENG

PLEASE WRITE TO ONE ADDRESS ONLY



The Departmental Store for All Concrete Machinery

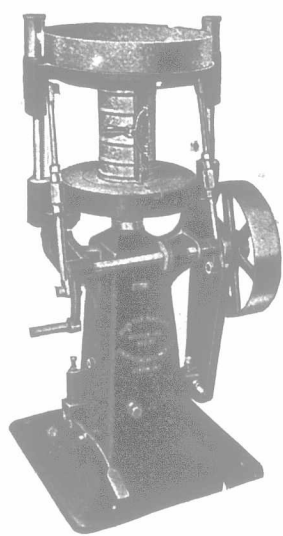


The London Adjustable Silo Curbs

The London Adjustable Silo Curbs

will adjust to make any size silo within the capacity of the curbs, thus making it unnecessary to carry more than one set—over 7,000 concrete silos have been built in Canada with these curbs, thus proving the universal popularity of the concrete silos. When asking further information, write for our

Catalogue No. 10

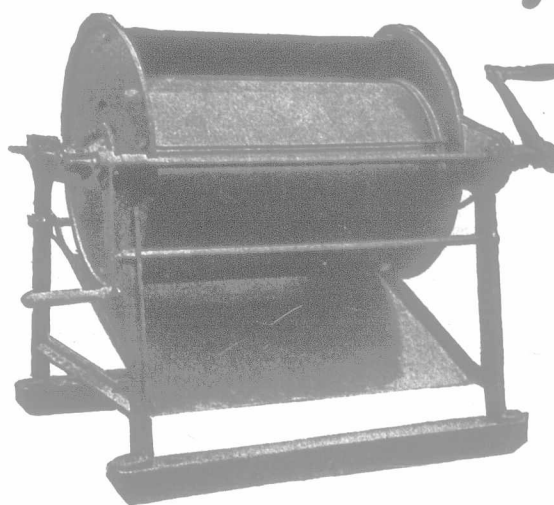


The Dunn Cement Drain Tile Machine

The Dunn Cement Drain Tile Machine

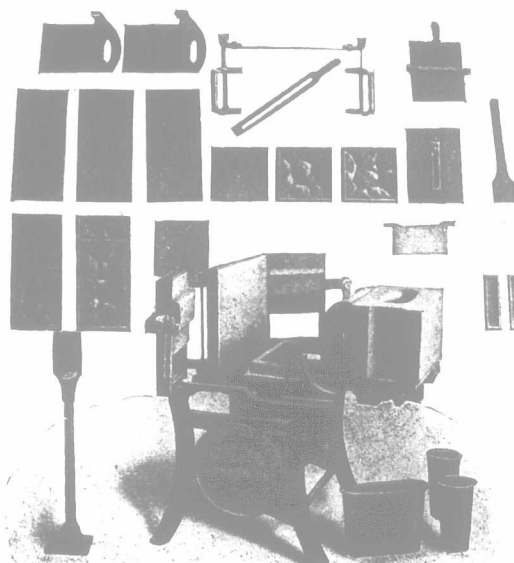
makes all sizes of tile, from 3 to 12 inches in diameter. Packs all tile twice—all tile made perfect. Capacity 2,000 per day. There are enormous profits in the manufacture of cement drain tile—Get started in the business, and at once.

Write for Catalogue No. 2



The Little Giant Batch Mixer

is the only good hand-operated machine on the market. This machine may be mounted on trucks, thus making it portable. The drum holds a 3½ cubic ft. batch, and will mix concrete for any kind of work. Easy to operate, also a good power machine by attaching a 1½ h.p. gasoline engine if desired. Catalogue No. 1-G will give you full description.



London Face-Down Adjustable Concrete Block Machine

London Face-Down Adjustable Concrete Block Machine

makes any size, style or shape of block within the capacity of the machine on the same Adjustable Mould and the one width of pallet. The range of work that can be done on this machine is unlimited, and makes it possible for the operator to defy competition. See illustrated Catalogue No. 3.

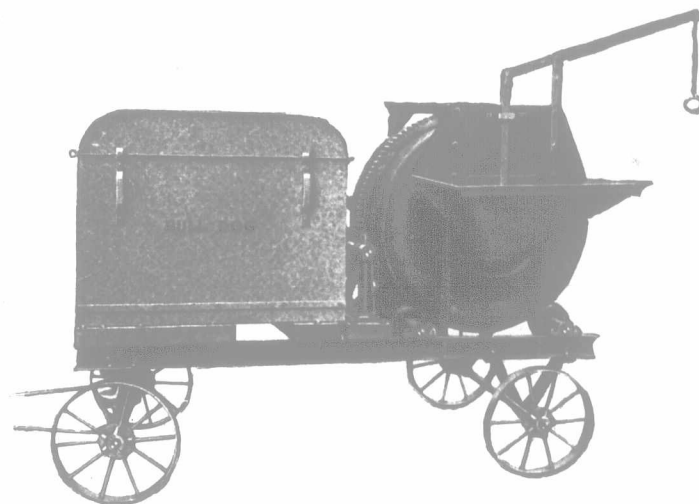
Every machine we make has a catalogue devoted to itself. Be good enough, therefore, to mention which catalogue you wish us to send you, as named under each paragraph above. Write to-day. Mention "The Farmer's Advocate"

Bull Dog Batch Mixer "The Big Little Mixer"

is light, easily moved from place to place—can be operated with few men—does any kind of mixing to perfection—has a capacity of 5 cubic ft. per batch, 50 cubic yds., per ten hours. Built to stand hard usage, always on the job earning big money, and will pay for itself in 15 days' use.

This mixer has the largest sale of any mixer on the market.

Send for Catalogue No. 1-B.



Bull Dog Batch Mixer

LONDON CONCRETE MACHINERY COMPANY, Limited, London, Canada
THE LARGEST MANUFACTURERS OF CONCRETE MACHINERY IN THE WORLD

Ask for Our 1915 Catalogue

To Make The Farm Pay More

Ask for Our 1915 Catalogue

Is an interesting and absorbing business
We can help you with

Good Seeds

See Our New Catalogue

George Keith & Sons

124 King Street East
TORONTO, ONT.

Seed Merchants
since 1866

Ask for Our 1915 Catalogue

Ask for Our 1915 Catalogue

PAGE FENCE

Page Fence costs a little more than others, but it is worth much more than the difference. Made of special rust-resisting galvanized wire. Every rod perfect. All full gauge wire. Beware of quotations on under-gauge fence. Make the seller guarantee the size.

No. of bars.	Height.	Stays inches apart.	Spacings of horizontals.	Price in Old Ontario.
6	40	22	6½-7-8½-9-9	22c
7	40	22	5-5½-7-7½-8	24
7	48	22	5-6½-7½-9-10-10	25
8	42	22	6-6-6-6-6-6-6	27
8	42	16½	6-6-6-6-6-6-6	29
8	47	22	4-5-5½-7-8½-9-9	28
8	47	16½	4-5-5½-7-8½-9-9	30
9	48	22	6-6-6-6-6-6-6-6	31
9	48	16½	6-6-6-6-6-6-6-6	33
9	52	22	4-4-5-5½-7-8½-9-9	31
9	52	16½	4-4-5-5½-7-8½-9-9	33
10	48	16½	3-3-3-4-5½-7-7½-8	35
10	52	16½	3-3-3-4-5½-7-8½-9-9	35
11	55	16½	3-3-3-3-4-5½-7-8½-9-9	38

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FIRE DESTROYS A BARN
At a few minutes before 3 o'clock this morning a fire broke out in a barn on North Front street, and premises on North Front street, and was badly damaged before the blaze was extinguished. A cutter and other articles which were in the barn were destroyed. How the fire originated is not known. Mr. Latta owned the barn and his loss is partially covered by insurance.

TWO BARN BURNED IN WINGHAM DISTRICT
One struck by lightning and destroyed. The other barn was destroyed by fire.

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Chatham, Oct. 20.—Fire at noon today completely destroyed a large tobacco barn and a large quantity of tobacco on the farm on concession 4, Harwich Township, owned by John A. Cameron. The loss is estimated at between \$4,000 and \$5,000. It is not known if the loss is covered by insurance. The tobacco was being smoked and it is believed that the fire was caused by a cigarette.

Mr. The Curbit's Barn Burned.
About noon on Sunday last the barn on Mr. The Curbit's farm was completely destroyed by fire. The barn was about four tons in weight and was recently bought and paid for by Mr. Curbit. The barn was owned by Mr. Curbit and was insured by the Farmers' Mutual Fire Insurance Co. of Toronto.

THE papers prove it. Nine times out of ten, after a storm, the news columns show that it is the farmer who suffers most. To those who have old-style barns that will burn, lightning and fire are a worry that sticks like a bad name.

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It is completely covered with Acorn corrugated non-rusting iron. The doors are metal, the windows wired glass set in metal frames. The ventilators, the ridge, the cornices, the eaves, are of Acorn galvanized iron. Not a particle of wood shows at any outside point.

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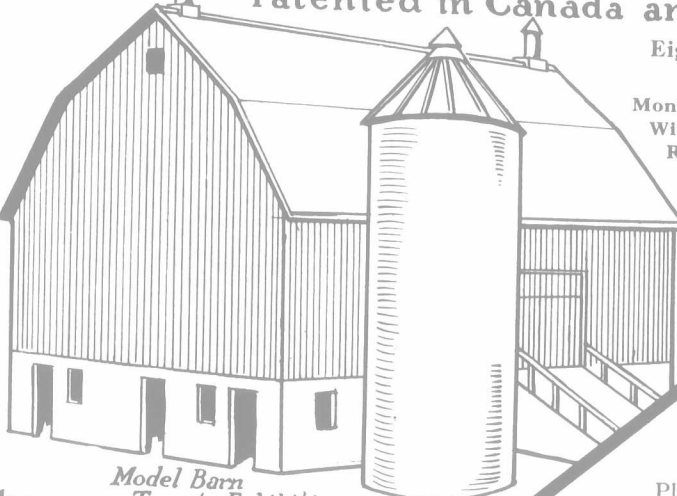
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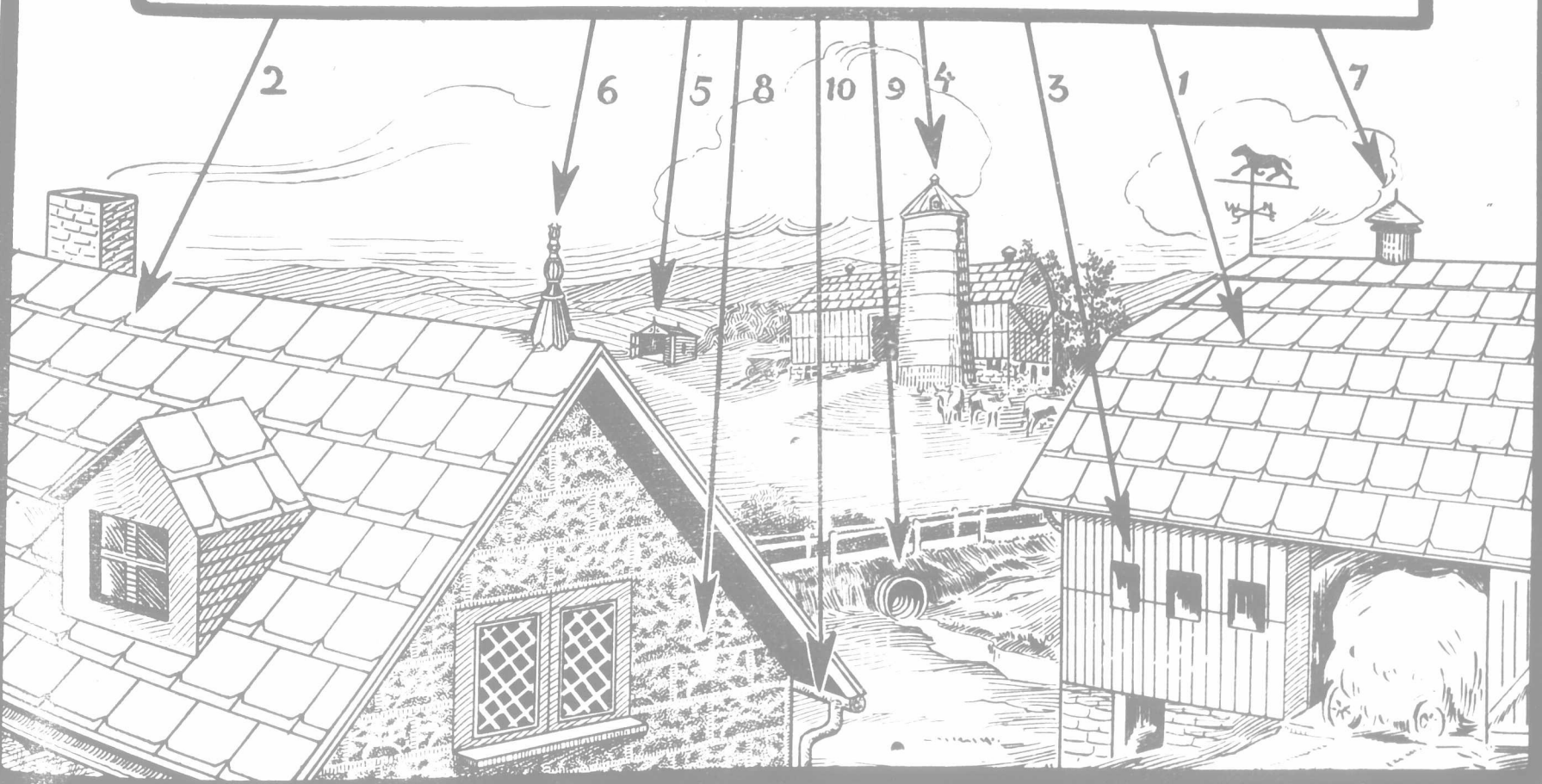
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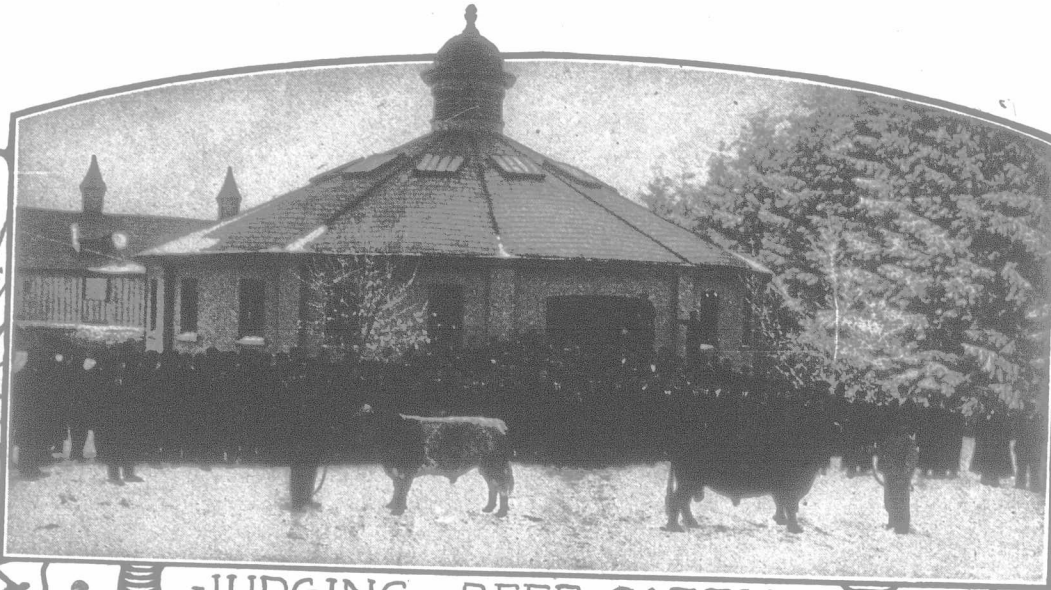


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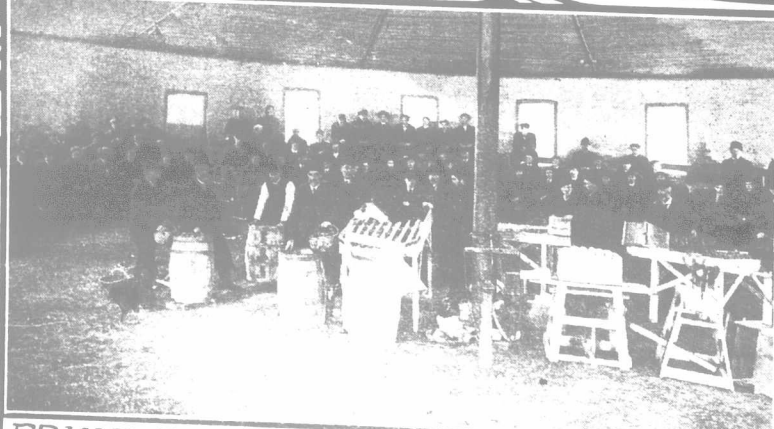
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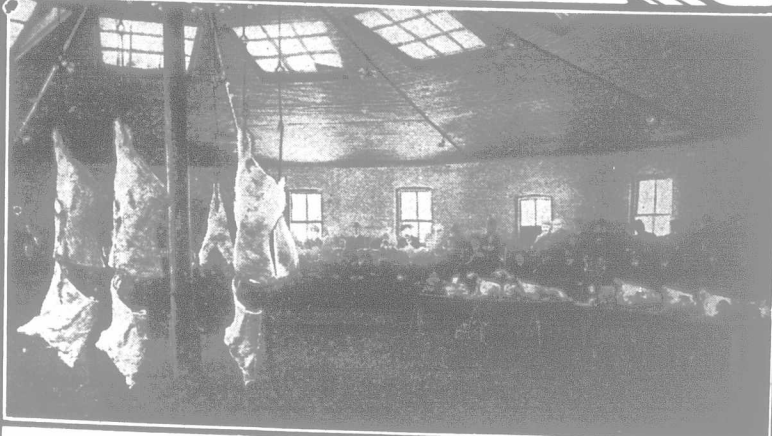


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The Farmer's Advocate and Home Magazine

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1868

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Vol. XLIX.

LONDON, ONTARIO, DECEMBER 10, 1914.

No. 1159

Christmas in War Time.

BY PETER McARTHUR.

"They gave it me," Humpty Dumpty continued thoughtfully, as he crossed one knee over the other and clasped his hands round it. "They gave it me—for an un-Christmas present."
"I beg your pardon," Alice said with a puzzled air.
"I'm not offended," said Humpty Dumpty.
"I mean what is an un-Christmas present?"
"A present given when it isn't Christmas, of course."

Alice considered a little. "I like Christmas presents best," she said at last.
"You don't know what you're talking about," cried Humpty Dumpty. "How many days are there in a year?"
"Three hundred and sixty-five," said Alice.
"And how many Christmas days have you?"
"One."
"And if you take one from three hundred and sixty-five, what remains?"

"Three hundred and sixty-four, of course."
"To be sure," Humpty Dumpty said gaily.
"And that shows that there are three hundred and sixty-four days when you might get un-Christmas presents."
"Certainly," said Alice.
"And only one for Christmas presents, you know. There's glory for you!"—Adapted from "Through the Looking Glass."

Christmas—it almost seems wrong to speak of it at such a time as this, but that is because we are accustomed to thinking of it merely as a season of sport and gayety and joyousness. Christmas means more than that. Without touching on its religious significance, it has come to be regarded as the season of giving, and because of the needs of this terrible year we must have more of this Christmas spirit, rather than less. That is why I have ventured to quote, with a few alterations, the amusing logic of Alice in Wonderland. Besides Christmas presents, we must all be prepared to make many un-Christmas presents to the stricken and needy of the world. We must develop a Christmas spirit that will manifest itself every day of the week and make itself felt in all lands. Our war-time Christmas should be the noblest and most generous ever known.

As a suggestion of what our Christmas should be in its domestic aspect, Mr. Norman Price has given us an excellent suggestion in the admirable cover he has prepared for this number of The Farmer's Advocate. Christmas should be a day for the renewal of home ties, a day when those who have been separated by the opportunities and demands of modern life can come together again and be renewed at the fountain of youth. In the Canadian home, pictured by this Canadian artist, three generations are represented—the grandparents, the parents and the children. It might truly be said that it takes three generations to make a home as well as to make a gentleman. To the children it is a day of joy and hope, to the middle-aged a day of rest and hospitality, and to the aged a day of serenity and peace. And all these qualities are needed to make a home. Our artist, with his picture of young and old, of happiness and affection, has truly portrayed the kind of Canadian home of which we are all proud, and the kind in which the Christmas spirit is to be found at its best.

But if Mr. Price's ideal should be accepted in all Canadian homes and the wanderers called to return, what strange gatherings we should see at our Christmas feasts. In the district with which I am most familiar such a home-coming would bring doctors, lawyers, judges, editors, teachers, clergymen, at least one college president, merchants, travellers, captains of industry, government employees, a handful of millionaires, and scores who are in occupations far removed from farming. It would also bring back girls and women who have made their mark in city life. And all would assemble in an area bounded by a few miles—less than half a township. I have no reason to think that this district is at all peculiar in this respect—probably other districts might make an even more remarkable showing, for the most wonderful crop raised on our Canadian farms has been the crop of boys and girls who have kept the business of the country moving. And not the business of this country alone. Wanderers would return from every continent and from all the important countries of the globe.

Since we cannot expect them all to return, we should at least send them a word of cheer, for this is a time when hearts need to be fortified with friendship. Even though the money that was spent on presents in past years should go this year to relieve distress, a letter or a card could carry Christmas greetings to the absent and

lonely. At a time when the nations are at war it is more necessary than ever for individuals to touch shoulders and face the future.

Of course, it is impossible to give a Christmas talk without referring to the universal Christmas text—"On earth Peace, Good will to Men." To quote it seems almost ironical, and yet I hold it is more appropriate this Christmas-tide than ever before. Never before was peace so earnestly desired or good will to men so sorely needed. If we study it carefully, we find our Christmas text as vital as ever. The fault is not with it, but with us.

Our present troubles are due to the fact that nations have not become sufficiently civilized to develop the Christmas spirit. Our nations are monstrous children whose education has been neglected, and it seems a far cry to the time when they will hang up their stockings in the chancelleries of Europe and tuck the diplomatists into bed to wait for Santa Claus on Christmas Eve. Although Mr. Carnegie has essayed the role of Santa Claus to them, they have not taken him seriously. Instead of accepting his Peace foundation in the proper spirit, they have provided themselves with such toys as Dreadnaughts and siege guns and torpedos and instruments of human slaughter.

During the past century we have developed good will to men as never before. We have had an interchange of thought and commerce that seemed to be welding humanity into a universal brotherhood, but we made the fatal mistake of leaving Peace on earth in the hands of the Kaiser and a few hot-headed men who have been working in secret. Though we must go through with the war into which they have plunged us—there is no other way out—this is the time to resolve that when peace is finally established, it shall be made permanent. We must deprive the nations of their dangerous toys and make it impossible for them to engage in war without the consent of the people. In short, we must inculcate the Christmas spirit among them as carefully as among our children. As sovereign voters we are responsible for the conduct of our nations, and if they misbehave, it is because they have not been properly brought up.

At many a Canadian table this Christmas there will be an empty chair—a place made vacant by some hero-hearted youth who has gone forth to battle for his home and all that makes it dear. Where there is an empty chair there will be full hearts; but sorrow for the absent should not cast too deep a shadow. Rather let there be pride that in the day of trial Canadians were not found wanting. Those who will spend their Christmas in the trenches of France and Belgium are offering their lives so that for all time there may be "on earth peace, good will to men." If fate should number them with "the unreturning brave," those who mourn may remember that they offered themselves freely in the knightliest cause for which freemen ever did battle. On Christmas Day our hearts will go out to these our heroes, and their thoughts will be turned homeward to us. We cannot wish them a Merry Christmas, as was our wont in happier years, but it is better to be heroic than to be merry. For their sakes we must make our war-time Christmas a day of generous giving, of far-reaching friendship and of heroic resolution.

The Farmer's Advocate

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
 2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s.; in advance.
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Attention! Christmas Comes.

In a world crisis, such as we are now passing through, are many obstacles to a "Merry Christmas" but none to the real spirit of the Christmas season, viz., good will and cheerful giving. Never in past history has there been a Christmas which presented so much opportunity to help others as is the case right now. Truly, it is in December 1914 more blessed to give than to receive. It is impossible, under existing conditions, for merriment to reign in many homes, and yet it avails nothing to be cast down. Few are so stricken that there are no others in a worse plight. We have much for which to be thankful. While many of our sons and our Empire's sons have nobly gone forth to battle, never to return, our Empire is still comparatively free from the awful carnage; but, while not under the mouth of cannon, there is much suffering. Here is where the Christmas spirit should manifest itself—alleviate pain of all kinds, help. Canada has enjoyed, notwithstanding certain depression, a very good year, and her share of "Business as usual." This is no time for selfishness—this is a season of sacrifice and service. It is the latter which we hope we have attained in our annual Christmas effort here produced; if it serves to help our thousands of readers to a brighter and better Christmas and a more prosperous year in 1915, then we feel that our efforts have not been in vain. The contents of this number should appeal to readers of all classes. Many of the articles discuss various phases of agriculture as affected by the war. Farming and live stock subjects hold a predominant place as usual, but there is meat in the issue for all members of the home circle, from the man deeply interested in the big problem of the day to the reader who loves a story for the story's sake. The painter's brush in the trained hand and the big camera in many countries have contributed their best, and the whole goes to our readers on its merits. We only hope that every home into which it goes will have as joyous a reunion as that depicted on our most excellent front cover. The "Christmas Number" as usual goes to our subscribers with the compliments of the publishers. All new subscribers are included in this number. Three copies desired as gifts to friends may be had at twenty-five cents per copy. All we ask is the continued confidence and co-operation of our large clientele. Aid us in making the issues of 1915 even more helpful than those of 1914.

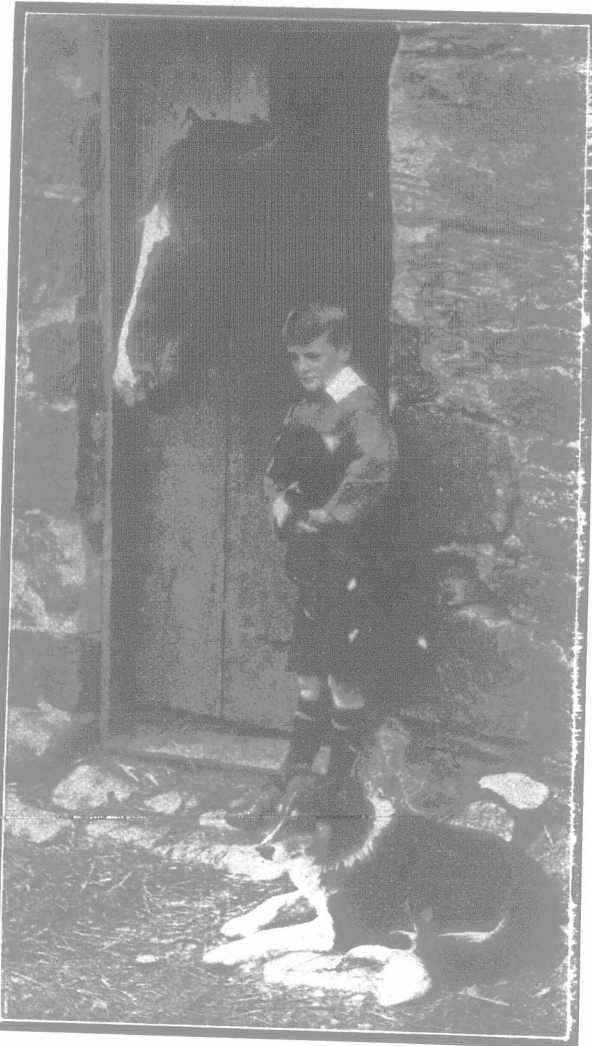
The Little Landers.

By S. B. Sinclair.

A story is told of a man in New Jersey, who owned so many farms that he was land poor, and who, attempting to work them all himself, lost money and ruined the farms. He concluded to sell one of them, which had brought him nothing for years, except weeds, thistles and tax bills, but he could find no purchaser. In desperation, he offered to give it away, but no one would take it as a gift.

One morning, with a smile on his face, he met a neighbor, and informed him that he had disposed of his farm. "How in the world did you get rid of it," asked the neighbor in surprise. "Well," he replied, "you see, it was like this, I was selling a cow and calf to a man who could not read, and I just slipped the farm into the receipt, unbeknownst to him."

On our way South, last winter, we fell in with a most interesting traveller, who seemed to know almost everything about all the natural objects in view from the train windows. He possessed the characteristic charm of the man who lives "near to Nature's heart," has gained control of himself and the forces about him, and is at peace with all the world. His information was so technical, accurate and extensive that we wondered who he might be. Finally we elicited from him the (to us) astonishing information that he made his living off a half acre of land in Minnesota, and suc-



Good Morning.

ceeded, not only in earning a livelihood, but in treating himself annually to a three-month holiday on the Gulf of Mexico. This experience in such marked contrast with that of the New Jersey magnate stimulated our curiosity to know how such results were attained. He described his methods in detail. His soil, climate and other conditions were very similar to those found in South Western Ontario. Every foot of land was utilized, most of it bearing at least two crops. Early maturing crops were planted between rows of Fall ripeners. The things grown were such as require small areas of land, but demand great care, and yield large returns, for example, Strawberries and Mushrooms. Every foot of soil received as much attention as is often given an entire field. Markets were studied with a view to supplying products out of season at high prices. Special tastes were catered to. Application was made of the latest expert knowledge regarding climatic conditions, tillage, fertilizers, etc. In brief, each detail was studied in the light of social need, and scientific discovery. Abraham Lincoln said, "The most valuable of substitutes from the smallest area of soil." This is being realized throughout the United States as our isolationists, such as our Minnesota friend, incidentally takes community form. In California the co-operative farming movement has almost lost its original intentions. One-fourth of

the farms in the state contain less than twenty acres, and one-half the farms less than fifty acres. Prof. Hunt, Dean of Agriculture of the State University of Berkeley, California, has written an illuminating bulletin of sixty pages on "Things a settler should know." One of his general conclusions is that "Ten acres appears to be the smallest area on which a California crop will return a gross income of four thousand dollars a year under average conditions." There are those who hold that by co-operation this area can be reduced.

The most highly organized, co-operative, community movement is that of the "Little Landers," started in Southern California a few years ago, and attended with such marked success and with an expansion so rapid that its advocates claim it is going to sweep the world.

The movement is based on the supposition that farming is the only job that is big enough to go round, and that the only hope of the ultimate independence of the masses lies in the cultivation of so much land as one individual or family can use to the highest advantage without hiring help. In practice it is held that, in California, this amount is usually not more than an acre, and that frequently it is less.

Perhaps the purpose of the organization can best be expressed by a quotation from one of their bulletins:—

"Instead of wasteful cultivation of big areas, we are to have scientific and intensive cultivation of small plots of ground; instead of going into the wilderness and shutting ourselves off from all the advantages which civilization has massed in centers of population, we are going to live quite close to the big town; instead of living far from neighbors we are going to live in the midst of neighbors and make the most of them in every way; instead of looking up the cheapest land, we are going to take the very choicest land in the choicest place we can find, and make a little of it accomplish as much in the way of real comfort and satisfaction as we could possibly expect from a big farm under different conditions.

"Instead of paying the longest price for what we buy, and accepting the shortest price for what we sell, we are going to combine our capital and brains in the purchase of supplies at wholesale rates, and in the sale of products direct to the consumer."

Several hundred acres of the best land in a choice location are selected some ten or twenty miles from a city. This land is purchased and an option secured on several hundred acres adjoining. The land is surveyed into quarter-acre, half-acre and acre lots, grouped around a civic centre, with club house and auditorium, school, store, etc. All unearned increment from increased value of land is dedicated to the improvement fund for streets, water extension, public buildings and parks, and for the provision of marketing facilities. Each buyer is required to subscribe for a share of stock in the co-operative store, paying ten dollars down, the value of the share being one hundred dollars. Each individual owns his lot absolutely, stands on his own feet and progresses according to his skill, energy and thrift. He is expected to co-operate in all matters beyond the sphere of the individual. There is a Little Lander market station in the city, and a common delivery wagon going back and forth daily.

Specialists in various forms of activity are furnished from the community itself, for example, if a new-comer wishes to begin the cultivation of strawberries for the first time, the secretary gives him the name of a Little Lander to whom he can go for specialized information at a minimum price.

A visit to one of these centres reveals a village of what is really a number of large gardens, each lot having at least one hundred feet frontage. In this village of several hundred people there are no landlords or tenants, employers or hired hands. No man pays rent, and each man is his own best customer. Some of the residents possess private incomes from outside sources, but no one is expected to follow any occupation outside the community. They are on the soil to stay, and claim that they find they can make a comfortable and independent living, and that they have learned that contentment is better than riches and much easier to get. One Little Lander stated that he made more than two thousand dollars last year from an acre, and another that he made seventeen hundred dollars from half an acre. Another said, he came near starving on four hundred acres, but is now making a comfortable living for himself and family from one acre.

Statistics show that more than ninety per cent. of the men of the United States get less than eight hundred dollars per year. The Little Landers claim that the average Little Lander, crediting himself with the rent that he does not have to pay and the food which he produces for his own home table, and adding to this the cash received for surplus products makes more than eight hundred dollars per year, and that he does this with an original investment of less than a thousand dollars.

(Continued on page 2147.)

The War and the Horse.

By G. T. BURROWS.

The surprise of the whole continent of Europe, right from the moment of the many counter-declarations of War, even unto the time of writing this article, has been the wonderfully varied, and of course necessary, use found for the horse in every branch of the service put into the field by each contesting army. There were those who said the next war, be it ever so humble, would be a war in which motor transport would hold sway. Fortunately for the Allies, the second phase of the European war has spent itself in an area, where although motor transport and armored motor cars have had their fling and proved a great service; cavalry work on a considerable scale, and horse haulage have also had to be relied upon to a large extent. In a land of dykes, ditches, canals and "heavy" earth, the motor for cross country work is still a problem; and that is where horses, both heavy and light, on each side of the contesting forces have had a big showing.

England, when her expeditionary force was being sent abroad, was cleared out of every useful type of horse she possessed. Shires and Clydesdales of brilliant breeding were taken for the transport of heavy artillery and ammunition. Shires and Clydesdales, three parts bred, i. e., alike light in the leg, but possessing powerful bodies and hind quarters were taken for artillery work in the field. This type we over here call heavy vanners, and they are good chunkily built animals—very likely, I should say, equivalent to the best of your grade Shires and Clydesdales. They are not top heavy, however, for although cleaner limbed than the Shire they have enormous leverage. These van horses have gone in droves from the parcel delivery firms of Britain.

For cavalry the ideal horse is a "blood like" looking horse, half or three parts Thoroughbred, stands 15 hands 1 1/2 inches high up to 15 hands 3 1/2 inches. No horses are suitable for cavalry remounts which stand over 16 hands high. What is called the mounted infantryman's horse is a

thick-set, 14 hands 1 inch to 15 hands 1 inch animal, standing on four good, short, strong legs, yet "nippy" on his feet and able to move freely. The artilleryman's horse should be 15 hands 2 inches to 16 hands. The ideal cavalry hunter, of which quite 15,000 head have been willingly yielded up to the Government by the sporting gentlemen and tenant farmers of the country. For whatever branch of light horse work an army-horse is required, the war office and the Remount officers buying in Britain have not lost sight of the outline of the English hunter—built on short legs, short cannonbone, shoulders that will bear some weight and much pressure, a strong back and well ribbed up. The more good blood—i. e., Thoroughbred blood, found in the horse's veins, the better.

At one time in England for general utility army-horse work, a French-Canadian cross was very popular, but their chief fault was a shortness of rein.

Lightness of bone, especially below the knee, is not required by the army buyers, and loose-rumped specimens always get "The knock." After mettle and shape comes action, and in all remounts true action is absolutely necessary. Any horse that cuts or brushes his fetlocks cannot be regarded as safe. The stamp of horse most suited for military use will always be the type that will rule the business market, and it is simply impossible to overstock the market with that kind of horse. It is so in peace times; it is doubly so to-day.

It has been my good fortune to see most of the different types of national horses engaged in the present conflict. Our own I have described to you. The country has had three different calls made upon it for horses of all types, and at the moment we have buyers in Canada picking out bunches of "breedy" looking light horses and "hefty" looking vanners. Pervers at home have gone for the best each "Call." For the Shires and Clydesdales they have gone up to £60 apiece; for the heavy vanners £40; for the best grade riding horses, i. e., cavalry, up to £70 have been paid, but that has been for a potential

officer's charger; for ordinary cavalry work £40 has been a general price, though I have heard of hundreds of cases where clean sweeps have been made of hunting stables containing £150 to £250 hunters, and they have all come in the melting pot at £40 a time, their owner swallowing any smart he may feel and arguing with himself that "it might have been worse"—which it would have been on the Continent itself. Countless thousands of horses of all kinds have been bought at £40. It is not much, but under the pressure of the surrounding circumstances men have willingly let their horses go and have gone after them, so to speak, to enlist and fight.

Horsemen in England this time have proved veritable "bricks." I reckon 2,000 well-known monied hunting men have joined the army as mere privates; countless thousands of yeomen and their sons, born horsemen, all of them, have heard the bugle call. Many prominent masters of fox hounds who are also army men have taken with them three and four spare horses, for they have realized that the average "life" of a cavalry horse at the front is considerably less than three months. The "life" of a haulage horse is considered six months, and I found tears in my eyes one day when I watched a bunch of 300 railway horses, heavy vanners and jolly good types of Shires in their own way, marching off, with their docile old heads tied together, two by two, and their big, bright eyes looking out upon a strange world of ships and sea and eternal kha'i. None of them will come back. It is a certainty that none of the haulage horses sent to France and Flanders will ever reach their old homes again. What per cent. of riding horses will get back it is impossible to estimate. Staff officer's mounts stand a better chance of escape, but horses actually in the fighting take, every moment, an opportunity of being killed. Letters home show that many officers met their fate when upon their second horse in one day's fighting. Communications from actual cavalrymen prove that in some cases they have lost three horses in a day. When one realizes that a "Black Maria," i. e., a German 8-inch Howitzer can deliver a shell, which when it strikes the ground makes a hole big



Spring.

After a picture by Edvin Douglas.

enough to bury a horse in, one will better understand the risk of life and limb. Indeed, many of these deep holes made by the German Howitzers are used expressly for the purpose of disposing of dead horses when the storm of firing gives a pause for such a task.

The lessons of the war, so far as it has gone, have been that the English and French are better mounted than their antagonists. It has been a war remarkable for the many and oft uses of cavalry; the Germans with their Uhlan regiments standing out brilliantly at the onset by reason of the seemingly rapid raiding work they did. But that has all changed. The Uhlan, smartly horsed as he was, and is, has evaporated, and his work is now as nil compared with the solid accomplishments of the Scottish and English mounted soldiery and the brilliant quick-actioned work of the French cavalry. In the shock of cavalry charges the trimly built English and French horsemen have gained the day merely because nature never intended the average Teuton for a life-guardian or a chasseur. His ponderous weight has literally broken down his mount, and over and above that, while the Allies' horses have been well looked after in the way of food supplies, the German cavalryman has had to allow his horse to look after himself and "live on the country." As a rule, the German horse is a slow galloper and is not eminently qualified as a jumper. He is not trained to hustle. It is not fundamentally the fault of the horse, but of the condition of the men upon his back. Heavy to a degree, burdened with accoutrements of considerable weight, it cannot be expected that a charger, even though he be bought from England, will gallop very fast or last very long. All the breeding in the world—all the blood of the Thoroughbred race—will be of no avail if the man put upon a cavalry horse's back is no better than an inanimate piece of lead. This is not said disrespectfully, but cavalry charges engaged between the belligerents have proven that smartly horsed though they be (and Ireland and England have been scoured these past ten years by German buyers of bloodlike remounts, costing £50 a head at three years old) the Teuton is no match for the slim-built, elusive Frenchman or the dare-devil, go-ahead British cavalryman.

Both Germany and France have been considerable buyers of British horses for at least a decade past; in the case of France for fifteen years or more—while the Germans have bought all types of riding horses from Welsh ponies to Thoroughbred stallions to go into their Imperial and other studs. The Frenchmen have gone in more for the Hackney or the combined rider-and-driver type. The French are great believers in that "dual purpose" horse, the Hackney. They have established numerous studs, in the development of which Hackney plays a great part. They have crossed the English Hackney upon all their own "foundation" breeds; the offspring have been used for every branch of the French army service—i. e., cavalry and artillery work, haulage and transport duties. We in England have neglected the Hackney at any rate as a riding mount. The French have seen virtues in him for all purposes, when he is crossed upon the middleweight and even heavy mares of their country. We, in Britain, have, like the Germans, kept to the hunter-bred stock chiefly for mounted soldiery, and to our Shires and Clydesdales and their first crosses for transport duties. The German cavalry at the taproot is very much like our own, but the culminating difference is this, that whereas the English hunter is "made" into an animal worth expending a lot of care upon and "saving" as much as possible, the Germans have handled and used their bloodlike horses with a little care or skill as possible. Though, as readers will have gleaned, this wonderfully "good" British hunter is a chance-bred animal, being sired by a Thoroughbred from a farmer's mare, mostly of Shire or heavy vanner descent, will, when cared for, rise to great hardships and prove

himself the best riding horse in the world. While the Hackney fills a very little place in the countless horses gone to the front to-day from Britain, he is, however, playing a big part in the make-up of the Allied French army, and there is every evidence to prove that he, or his offspring make admirable riding horses.

The Russian horses engaged are of even lighter bone and greater quality than the British. They, too, are a mixture of Thoroughbred, trotting Orloff and Hackney bloods. They come out of the mould trimly-built, short-backed, hard, flinty-boned, and stand 15½ to 15.3 hands high, and they are possessed of endless grit and stamina. The Belgian light horse is wonderfully "breedy," considering the limited supplies of good foundation horses that poor little country possesses. Belgian army buyers have always found the type they want in the English Thoroughbred and the Hackney. These crossed on the native light-legged mares, have produced a neat little riding horse, standing on excellent, steely legs, and as nippy as a kitten on his feet.

Of course, all over the Belgian and the French services at the front, the native heavy horses have played their parts in transport work. The motor has not ousted, and cannot ever hope to beat from the field such excellent heavy horses as the Percheron, the Boulonnaise, and the heavy brigades of Flanders, though one fears that the Germans have left alive very few horses worth looking at in their sack of Malines, Louvain and the nameless other rural places where horse breeding flourished.

by forming countless small country and county horse breeding societies. They are to be developed upon the lines of miniature profit-making companies, and all is to be done fair and square and above board. These companies or "Horse Breeding Societies" will either buy or hire stallions and perhaps will have a few mares and breed from them, but the mares for the most part will be the property of farmers and small holders who belong to these Societies as paying members. They virtually join up as members, so that they can enjoy the privilege of reduced stallion fees. You once had, or still do have perchance in Canada, I think a similar business, i. e., Syndicate Sire Societies or something to that effect. Anyhow, horse breeding societies are growing apace in Great Britain, and what with our rich breeders "pulling out," by giving reduced services, we shall do very well. That is chiefly in the heavy horse line. In light horse production we have the Government behind us with a £10,000 yearling sale, paid out chiefly for siring hunter stock or at any rate, cavalry chargers, but the joke has been that in the past the German has got into the British market first! He will not be allowed to do that again. German agents have cleared Ireland and the Midlands during the past three or four seasons, and have bought considerable numbers of horses at higher prices than the home Government has been in the habit of giving. What pleased the German's fancy was promptly acquired. Their agents were never obdurate in the matter of price, and home buyers were driven out into the cold to some extent. When asked

what they were buying so many horses of a type for, one of the German agents replied, "for gentlemen to ride." We now know what kind of "gentlemen" are riding them.

It will not be a wild estimate to declare that, Russia included, over one million light horses will meet their fate in this great holocaust. Canada must take her place in the world's markets when the tap is turned on for future supplies of light horses. Thoroughly efficient workers as a rule are Canadian horses; they possess stamina and endurance; they are hardy, their hearts are in the right place, and the standard of soundness among them is satisfactory. These are my observations, however, and if the 5,000 horses now being bought in Canada for the British army let me down in my opinion, I shall be astonished. Be sure the world's horse market, for light and heavy horses, will jump, as you call it, not the moment war is over but everything has settled



A Scotchman and His Favorite Horse.

What will be the outcome of this dreadful wastage of horse life? That it is dreadful, we have every evidence. Whole mobs of horses are blown into eternity as soon as they are unmasked to the artillery of either side. English and German soldiery have lost to, or captured from, each other hundreds of spare horses at a time. This interchange of cavalry mounts and transport stock must have curious sequels, but these events are mere details in the day's work, and so the great game goes on.

What of the future? The most palpable result must be an increased demand for all kinds of horses after the War is over, when the demand for heavy horses, particularly, will be greater than ever; at least that is the opinion I have gleaned from a large number of British Shire breeders. Horses will be dearer, that is an undoubted fact; heavy horses to-day are quite ten per cent. above the price they ruled last spring. It is to be deeply regretted that fully 50 per cent. of the heavy horses sent for transport work from England upon the first mobilization were mares. Public opinion arose against this wastage of breeding stock, and the remount and heavy horse buyers for the Government have each done less time for the percentage of mares going out of the country never to return again was a bit too high to be comfortable.

We here are meeting the possibility of this increasing trade in horses that is bound to ensue,

in a few months after down.

Each fall many an old, worn-out horse is sent away to the woods to be done away with. The owner does not care to feed him expensive feed during a long winter, and he does not, if he is humane, care to dispose of his "old faithful" to another who may overwork, underfeed and abuse him. Accordingly he is ordered shot. It is a hard practice to kill an old friend and worker. The rifle has seemed the best method in the past, but yet it is not considered by all the most humane. Up-to-date places equipped by humane societies for the destruction of old animals do the work by using electricity or prussic acid. This kills instantly without pain. A few drops of this acid on the tongue and the animal is no more. It never knows that its end is near, and does not fret or suffer. This process might well be followed by farmers and others who have old animals to destroy. Better by far see an animal in a well-dug grave than to get a few paltry dollars for him, and see him suffer along in the hands of a cruel and careless man for a twelve-month or more.

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about, the Stepper, Heavy-weight and in his unknown other classes sufficient sized agricultural of a mare but of that gave usually breeding was not had a test show pure and carriage formation the various where he was being.

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The Horse, Forty Years Ago and Now.

By Whip.

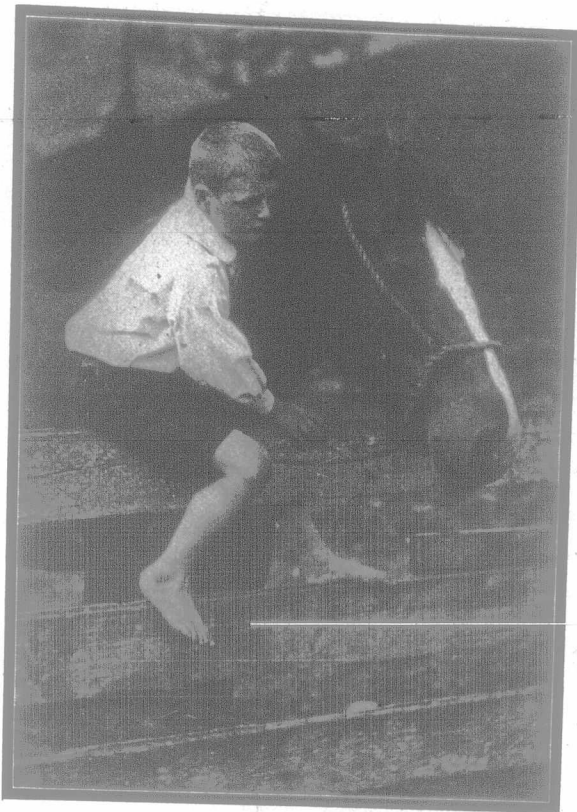
The young horseman may be interested in reading about the horse of "forty years ago." To him forty years seems a long, long time and what occurred then may, to him, appear almost prehistoric, but to the man who has passed the half century mark, forty years back does not appear so long ago, and he may have hopes of seeing another "forty years." Forty years ago pure-bred, or registered horses, with the exception of the Thoroughbred, were unknown, at least in this country, hence horses were spoken of as classes rather than breeds, and even the classes were much fewer in number than now. They were the Draft horse, the General-purpose horse, the Carriage horse, the Roadster and the Saddle horse. We then knew nothing about the Runabout, the Cob, the Combination horse, the High Stepper, the High Jumper, Light, Medium or Heavy-weight Hunter and other fancy classes, and in heavy horses the Agricultural class was unknown. The draft horse then, was, like the other classes, of mixed breeding. He was not of sufficient weight to be now classed as a good-sized agricultural horse. He was produced out of a mare of fair size by a sire, also of fair size but of no particular breeding. Any male foal that gave promise of becoming a fair size was usually kept for stud purposes, independent of breeding or characteristics other than size. It was not uncommon at that time for a man who had a team that he thought good enough for show purposes, to enter as draft, general-purpose and carriage, and then after gaining all the information possible as to what would compete in the various classes, exhibit his entry in the class where he thought he had the best chance of winning.

Even at that time there were a few imported draft stallions, called, as they are called now, Clydesdales and Shires, and some Suffolk horses. The first two named, while they had pedigrees, were not registered. The writer is not sure whether or not the Suffolks even so long ago were registered or not. The principal desirable point in the Clydesdale or Shire was weight. Quality then was practically an "unknown quantity." It never was discussed, and those who remember the individuals do not wonder at the fact, as there really was none to discuss. These two classes resembled each other then, probably to a greater degree than they do now. As at present they were of different colors, with large, coarse heads, heavy necks, upright shoulders, an abundance of coarse, wavy hair on very beefy legs, with short, upright pasterns, but usually good feet. It was not possible to distinguish the breeds, and this was a natural result, as there was a constant intermixture of the breeds. Both the Scotchman and the Englishman were ambitious to improve their horses, and the former imported good sires and mares from England to improve his stock, while the latter returned the compliment by importing good individuals from Scotland to improve his. During the first half of the last quarter of the last century each country established a stud book, and since then a mixing of blood rendered the progeny intelligible for registration, hence the practice practically ceased. The excellent, massive and beautiful animals, full of quality, substance, style and action that are seen by the present generation, not only in the show ring but on the streets of towns and cities, on the country roads and in the fields, either at work or on pasture are the result of careful selection and mating. Descendants of these horses, whether pure or cross-bred are now divided into two classes, viz., draft and agricultural, according to weight, and those that are not heavy enough for either class really have no class and are called chunks. The Suffolk horse even forty years ago, whether registered or not was evidently pure-bred as he had then practically the same distinctive characteristics as he has now, viz., chestnut in color, little or no white, and a very blocky body set upon short legs of good quality. The other draft breeds, so well known now, viz., the Percheron and Belgium drafts, were not known here.

The General-Purpose horse forty years ago was practically the same as he is now, a serviceable animal for general use, but of no particular

breeding. This is a class for which there never was, and no doubt never will be a stud book. No person can give an intelligent idea as to how to breed him. As a matter of fact the good general-purpose horse is generally an accident. The breeder, in trying to produce a special purpose horse of some of the light classes, gets one that is not good enough to make a high-class representative of his class, but has sufficient size and action for general purposes.

The Carriage horse of forty years ago was essentially a different animal from that of to-day. In most cases he was the descendent, more or less close, of the English Coach horse known as



Preparing to Mount.

the "Cleveland bay," which, like the Suffolk, had been bred on certain lines for generations until he became of a definite color, good size, stylish appearance and fair action. At that time height largely classified between the carriage horse and the roadster. The horse of any good color, that was about 16 hands high, with long neck, good tail, clean limbs and good feet, that carried his head and tail well, had good style and general attractive appearance and could trot at seven or eight miles an hour would win in good company. Excessive or flash action were not looked for, in fact was not thought of. Those of us who can remember so long ago can call to mind horses or pairs that used to attract general attention and admiration and win at our best shows, that, if taken into the show ring now in the heavy har-

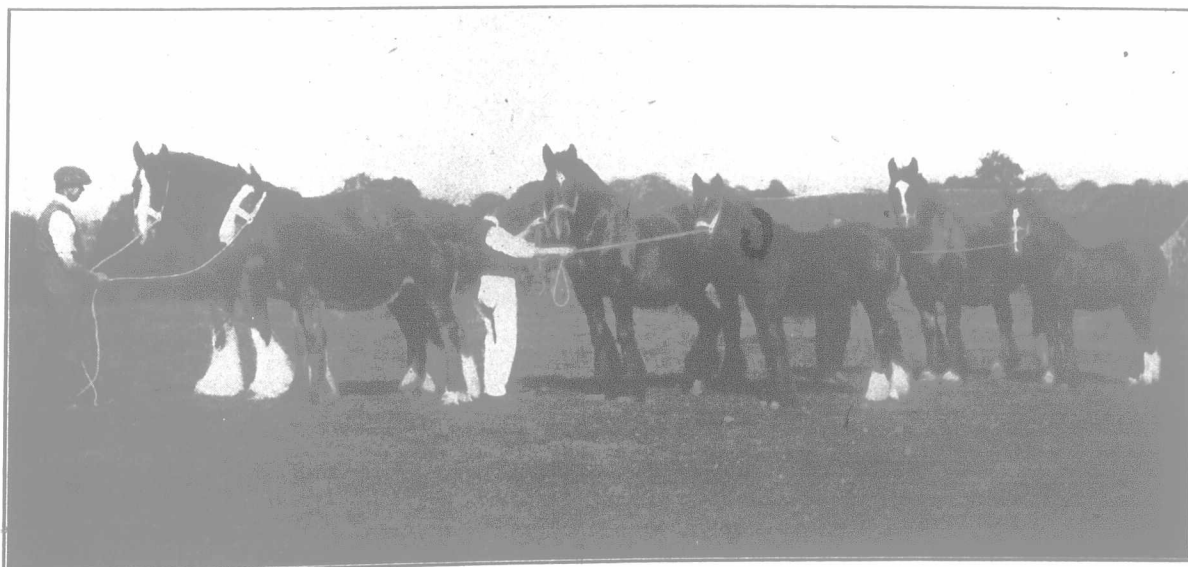
A roadster was supposed to be between 15½ and 16 hands, with the characteristics of the carriage horse more or less marked, but those with some speed were favored. Even at that time, while the "Standard-bred" was not known, the Americans had for some generations been endeavoring to breed so as to produce speed at the trotting or pacing gait, and some of the sires bred on these lines were brought to this country; it was not uncommon to see in the show ring an animal that had some speed. A horse that could show a three-minute gait was considered fast, and if he could go in 2.40 he was considered "a whirlwind." For the presence in our country now of a class of road horses with extreme speed we must thank our American cousins, as to them is due the credit of producing both sires and dams of that class called "Standard-breeds."

The Saddle horse of forty years ago was to a great extent the same as he is to-day. We do not refer to the flash-acting saddler or park horse, such as often win in the show ring now, but to the utility saddler. He was then and now is, the descendent, more or less pure-bred, of the Thoroughbred. Just here we may remark upon the abuse or misuse of the word "Thoroughbred." We hear, and see in print, thoroughbred Carriage horses, thoroughbred Clydesdales, etc., thoroughbred cattle, thoroughbred sheep, swine, dogs, chickens, thoroughbred fruit, roots and even plants, etc. As a simple matter of fact (the definition of the word in dictionaries, etc., notwithstanding) there is only one animal or article in the world that is entitled to the appellation the pure-bred descendent of the English race horse. The Thoroughbred is a distinct breed, and the fact that a stud book has been in existence for so many generations makes him more "thorough" than any other breed, hence entitled to the distinction. This horse was registered at the period under discussion, and no well-marked change in general characteristics can be noticed. Those of us who can remember can call to mind individuals of this breed that we admired in our boyhood that would compare favorably with winners of to-day. Then, as now, the high-class saddler had Thoroughbred blood close up. His progeny then was more common on the ordinary farm than he is to-day. At that time roadsters were not so common, light buggies also were more rare, the roads were not as good, and much more travel was done on horseback. There were few farm stables without one or more saddles and riding bridles, and father, mother, sons and daughters, with few exceptions, could ride, and all the light horses were taught to go in saddle, whether or not they had saddle characteristics well marked. When we say that all "could ride" we do not mean that they simply could stay on the horse's back, humped up like a monkey and apparently afraid of falling off, but could ride in good form with a good seat and good hands. The exercise was pleasant and healthful, and certainly there is no place in which a man or woman appears to better advantage than well mounted, provided, of course, he or she can ride well enough to do credit to the mount.

The facts are different now. It is a rare exception to see saddle or bridle in the ordinary farm stable as it is rare to see the boy or girl who "can ride." This, we think, is unfortunate. It is caused by the multitude of light vehicles, motor cars, and other means of transportation that are used by both young and old. When the boy or girl does not learn to ride while young it is seldom that he or she acquires the habit later on, as it is an acquirement that requires some skill to make it enjoyable, and an adult or older person, knowing that he does not either look well or feel comfortable when learning to ride, will usually choose other means of transportation.

Space will not permit of any discussion of the modern breeds and classes of horses not known here forty years ago, viz., the Hackney, the Cob, the Runabout, the Combination horse, French Coach horse, the German Coach horse, the Hunters and Ponies.

In conclusion we may venture to prophesy, notwithstanding the present, somewhat dull horse market and the presence of electric and gasoline-driven machinery and vehicles that perform the functions formerly performed by horses, we do not think that the day for "the passing of the horse"



Shires in the Home Land.

ness class, would practically not be looked at by the judges. They would now do well in the "general-purpose class." The sires that at that time produced carriage horses were animals of the characteristics noted, but of no particular breeding. We may almost say that they were "accidents," and we cannot wonder at the fact that few of their offsprings possessed the characteristics of their sires. Hence, while most of them were useful they were not valuable as show horses.

The Roadster of those days was generally distinguished from the carriage horse by his height,

has arrived, but that the demand for horses will continue, and present conditions point to the probability of their value increasing. Hence, we think that the man who continues to breed good horses of any class will stand to make good money in the not far away future.

The World's Most Famous Agricultural Experiment Station.

By Ernest H. Godfrey, F. S. S.

At the village of Harpenden, in Hertfordshire, England, stands, in front of its picturesque gorse-covered Common the Rothamsted Experiment Station, oldest and most famous institution of its kind in the world. Towards the close of the present year will be celebrated the centenary of the birth of its founder—Sir John Lawes,—who in scientific partnership with Sir Henry Gilbert, conducted for 57 consecutive years agricultural experiments, which will bear their names in honored remembrance to remote posterity.

FOUNDERS OF THE EXPERIMENTS.

John Bennet Lawes, born December 28, 1814, succeeded to the ancient manor of Rothamsted at the age of eight. He was educated at Eton and Brasenose College, Oxford; but showing an early preference for science he studied also in the Chemical Laboratory of University College, London. Coming into possession of his property in 1834 at the early age of 20, he at once began experiments upon plants growing in pots, the investigations being subsequently extended to the field. Some years after this, observing the excellent effects upon turnips by dressing with mineral phosphates treated with sulphuric acid, he obtained in 1842 a patent for the manufacture of superphosphate, and thus laid the foundation of a large personal fortune and of an immense national industry. The following year, with the object of devoting more systematic attention to experiments which had already yielded such fruitful results, he engaged the services of an agricultural chemist, 26 years of age, who had been his fellow student at University College. In this way was begun that wonderful partnership with Sir Henry Gilbert, which was destined to bring to both such enduring fame.

Joseph Henry Gilbert was the son of a Congregational Minister at Hull, Yorkshire, and his mother, Ann Taylor, with her sister, was known as a writer of children's songs and hymns, one of them beginning with the lines, familiar to childhood, "Twinkle twinkle little Star." He was educated at the Glasgow University, University College, London, and at the University of Giessen, Germany, where he graduated as Doctor of Philosophy. During his youth he had the misfortune to lose an eye through a gunshot accident.

DESCRIPTION OF THE EXPERIMENTS.

The work at Rothamsted, thus begun, may be divided into three separate but interdependent parts, viz., the field experiments, the pot culture station and the laboratory work. We will glance briefly at each in turn. Nowhere else in the world have field experiments been carried on continuously for so long a period, and it is this fact that gives to the Rothamsted experiments their unique and extraordinary value. On the Broadbalk Field at Rothamsted wheat has been grown for 70 years in succession on plots with no manure whatsoever, on plots with farmyard manure, and on plots with various artificial manures. The results, universally interesting, have proved the possibility of growing wheat successfully for many years continuously upon ordinary arable land, provided that suitable manures be applied and that the land be kept clean. Even with no manure it has proved possible to obtain a constant yield, and the actual average of about 13 bushels per acre over the wide period is approximately equal to the world's average. At the end of the last century it was even superior to the average yield of the United States. It has been shown also that mineral manures alone give very little increase, that nitrogenous manures alone give more than mineral manures alone, but that the mixture of the two give considerably more than either separately. It is related that a visitor from the United States, when talking to Sir John Lawes in Broadbalk Field once exclaimed: "Americans have learnt more from this field than from any other agricultural experiment in the world."

Another set of experiments of peculiar interest related to the herbage of permanent pastures. The Rothamsted Experiments have shown the extraordinary influence which different manures have upon grass land, both as regards the botanical constituents and the chemical composition of the herbage. Indeed the experiments have shown that it is possible to modify at will the entire character of the vegetation of a grass field by the judicious application of the appropriate manures. Equally important have been the results of experiments in other directions. It is impossible to enumerate them all; but many of them presented a final and authoritative judgment upon

strengthened in various subsequent enactments; but it is probable that this legislation could never have been successfully inaugurated without the tables of manurial values based upon the data collected at Rothamsted. These have had a most important influence in improving British agriculture, for whereas before the legislation of 1875 unscrupulous tenants would starve their land in the last years of their tenancy to the great detriment of the landlord and the incoming tenant, under present conditions the tenant is encouraged to keep up the full fertility of his farm, since he is sure of just compensation for value that he cannot remove when quitting.

POT EXPERIMENTS.

It has already been stated that the experiments at Rothamsted first began in pots. For many years the experiments on the field scale were deemed of primary importance, but in 1883 Hellriegel and Wilfarth made their important discovery by means of pot experiments of the part played by bacteria in the assimilation of free nitrogen by leguminous plants through the nodules on their roots. Though Lawes and Gilbert had previously done much important work in an investigation of the nitrogen problems, this source of assimilation had not been found out. Hellriegel and Wilfarth's discovery gave an immediate impetus to both pot culture experiments and bacteriological investigations. Their experiments were repeated and confirmed by Lawes and Gilbert, and even carried a stage further.

WORK IN THE LABORATORY.

The work carried on in the Laboratory at Harpenden for nearly 60 years was also absolutely unique. The precautions taken by Gilbert to ensure accuracy and the elimination of all disturbing influences is nowhere more apparent than in his preparation of samples for analysis whether of soil or plant, and during the long period of his work there has been collected, stored and conveniently classified at Rothamsted a vast collection of samples and analyses which are invaluable for future reference and comparison. To Gilbert's untiring industry is due a vast amount of the knowledge accumulated with reference to soil chemistry, and the relations of plant growth to manurial applications. He brought out clearly the influence of nitrogen in the production of non-nitrogenous bodies—the carbohydrates—starch and cellulose in the case of cereals, starch in potatoes and sugar in root crops.

SCIENTIFIC CONTRIBUTIONS.

Altogether something like 130 contributions were published in the joint names of Lawes and Gilbert on different aspects of their experiments, the medium of publication being chiefly the journals of scientific societies and including the Philosophical Transactions of the Royal Society, the Journals of the Royal Agricultural and Chemical Societies and the Proceedings of the Institution of Civil Engineers. The great variety of the agricultural subjects elucidated by the Experiments will be apparent from the following partial selection of papers which appeared in the Journal of the Royal Agricultural Society of England; Agricultural Chemistry in relation to Liebig's mineral theory (1851 and 1863); water given off by plants during growth (1850); comparative fattening qualities of different breeds of sheep (1851); wheat experiments (1855, 1856); the growth of barley continuously on the same land (1857, 1873); manures on permanent meadow land (1858, 1859, 1863); the growth of red clover (1860); the composition of oxen, sheep and pigs, and of their increase whilst fattening (1860); the utilization of town sewage (1863); the growth of wheat continuously on the same land (1864, 1884); the valuation of unexhausted manures (1875, 1885, 1891, 1897); amount and composition of rain and drainage waters (1881, 1882, 1883); the sources of nitrogen of leguminous crops (1891).

THE EXPERIMENTS A PRIVATE ENTERPRISE.

Be it remembered that these experiments were conducted for nearly 60 years at the sole expense of Sir John Lawes, a private country gentleman and landowner, and that whilst not a penny was contributed by the State or any public body towards the maintenance of the Experiments they lost nothing, by this fact, in the care and sense of responsibility with which they were conducted; possibly they gained through freedom from official interference or control and the absence of "red tape" so frequently associated with it. Of worldwide application, no efforts were spared to make



Fig. 1—The Original Laboratory at Rothamsted.

agricultural questions that arose during the controversies of the day.

UNEXHAUSTED VALUES OF MANURES.

In connection with Mr. Gladstone's early Irish land legislation, the question arose as to the determination of the compensation payable to outgoing tenants for the unexhausted value of their applications of manures. The same question soon transferred itself to English agriculture, and it was tackled with characteristic vigor by the two investigators at Rothamsted. Their experi-

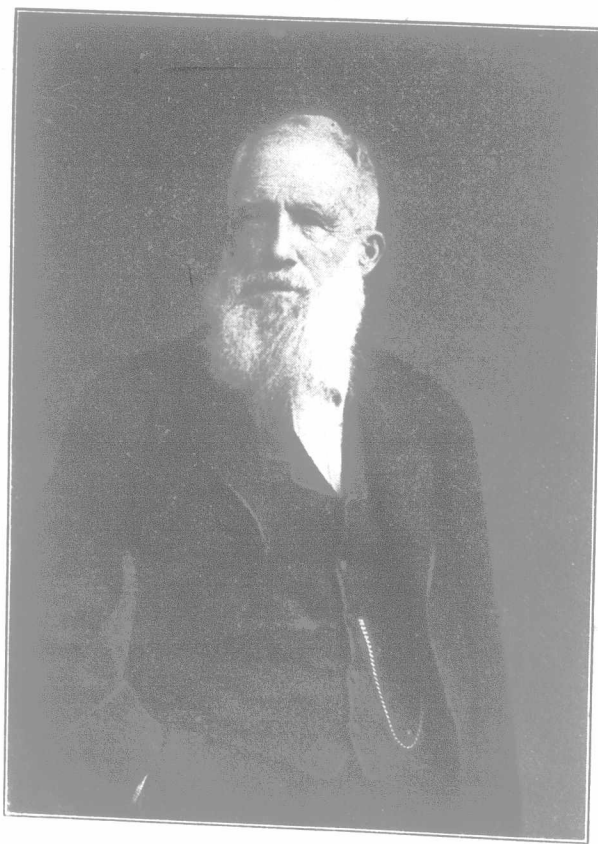


Fig. 2 Sir John Lawes, Bt., Founder of Rothamsted Exp. Stn.

ments provided data for the scientific determination of the residual manurial value of rich feeding cakes fed on the land before determination of a tenancy. The Agricultural Holdings Act of 1875—permissive in its operation—was important as admitting the principle of compensation to outgoing tenants. The original Act has since been made compulsory, and the provisions have been

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the results of the Experiments universally available. In 1882, in 1884 and in 1893 Gilbert personally visited the United States and Canada to lecture upon the experiments; and in the early nineties bound collections of the Rothamsted papers, consisting of three quarto and seven octavo volumes, were presented to various national institutions throughout the world.

PUBLIC RECOGNITION.

Labors so unselfishly devoted to the public good could not, however, escape recognition. So early as 1855, twelve years after the commencement of the Experiments, a new laboratory was erected by public subscription and presented to Mr. Lawes in replacement of the original laboratory which was installed in an old barn (See Fig. 1). On this occasion the idea of the Testimonial Committee was to present a service of plate, but the amount of money collected was diverted to the more publicly useful object in accordance with a suggestion characteristically made by the recipient. In 1893 the Jubilee of the Experiments was celebrated at Rothamsted and Harpenden by the presentation to Sir John Lawes of his portrait painted by Herkomer, by the presentation to Gilbert of a massive silver salver, and by the erection in front of the Laboratory at Harpenden of a huge granite monolith with a commemorative inscription. On this occasion King Edward, then Prince of Wales, presided over the Committee, and signed the address from the subscribers. The ceremony of presentation took place at Harpenden on July 29th, 1893, when other addresses were also presented from the leading agricultural and scientific societies of the world, the two leading French agricultural societies (Societe Nationale d'Agriculture and the Societe des Agricultures de France) being represented by personal delegations. The subscriptions to the Jubilee Fund were not confined to Great Britain, but came from all over the world, and nineteen of the Agricultural Experiment Stations of the United States participated. In 1882 Lawes was created a baronet, and in 1893 Gilbert received the honor of knighthood.

DEATHS OF FOUNDERS AND CHARACTERISTIC INCIDENTS.

The partnership which had endured so long and which had been so fruitful was dissolved by the death of Lawes on August 31, 1900, at the age of 86. His portrait here produced is from a photograph by Elliott and Fry (See Fig. 2). It was natural that his aged friend should not long survive alone, and Gilbert's death too occurred little more than a year afterwards on December 23, 1901, at the age of 84. They rest side by side in the parish churchyard at Harpenden, inseparable in death as in life and leaving their names carved on simple tombstones, but imperishable as "proudest record midst the tombs of kings." The two men were eminently fitted to be the complement each of the other. Lawes was the man of affairs, thoroughly acquainted with agricultural problems, and able to check by experience of practical details any tendency towards visionary experimentation. He was also versatile and inclined to introduce changes and modifications, and has been known to say that but for his partner he would have ploughed up many of the plots before they had yielded their full results. Gilbert, on the other hand, was the born scientist, uniting with absolute accuracy and attention to detail indomitable perseverance and determination to see an Experiment through to its very end, and wrest from it all that it was capable of teaching. In personality Sir John Lawes possessed the quiet unassuming manner of the typical English country gentleman. Of his appearance he was somewhat negligent, and was, therefore, apt easily enough to be mistaken for strangers for a person of less consequence than he really was. Thus, on one occasion when walking near his home he was accosted by a laundry woman who offered him 2d. to help her carry a basket of washing. Sir John cheerfully assented, much to the amazement of a third person who met them and recognized the baronet. At another time he was attentively examining some fine poultry, the property of a female cottager. She eyed him with great suspicion, and was greatly relieved when he moved away, but no less astonished at the subsequent receipt of a request "to name her price for the fowls which Sir John had admired that afternoon."

PERMANENT ENDOWMENT OF EXPERIMENTS.

In 1889, eleven years before his death, Sir John Lawes provided for the perpetuation of the Experiments by creating the "Lawes Agricultural

Trust," and endowing it with the sum of £100,000 (\$486,000) with the famous Laboratory and with certain areas of land devoted to the Experiments. Under the trust deed the Experiments are conducted by a Committee consisting of representatives appointed by the Royal Society, the Chemical and Linnean Societies and the Royal Agricultural Society of England. Subsequently, with a view to extend the scope of the Experiments a Society was incorporated, which enabled voluntary donations and subscriptions to be collected from the public. The interior of the Laboratory with its vast collection of samples is shown in Fig. 3.

RECENT DEVELOPMENTS.

Upon the death of Gilbert, A. D. Hall, F.R.S., was appointed director of the Experiments, and under his able direction, which lasted from 1902 to 1912, noteworthy progress was made. In 1906 the James Mason Bacteriological Laboratory was added to the buildings. It was erected and equipped at a cost of about \$25,000, presented by J. F. Mason, M. P. In the following year the Goldsmith's Company granted to the Station a sum of £10,000 (\$48,600), the income of which is devoted exclusively to the investigation of the soil. The position of first Goldsmith's soil chemist was held by Dr. E. J. Russell, and it was not long before the grant bore practical fruit. In 1910, Dr. Russell, in collaboration with the bacteriologist of the Station (Dr. H. B. Hutchinson), made the important discovery that certain organisms in the soil provisionally classed as protozoa prey upon ammonia-producing bacteria and so reduce their activity in increasing the fertility of the soil. By partial sterilization of the soil, by which through heat or other

house. The special work carried on in this new wing includes investigation of the partial sterilization of the soil, the losses of nitrogen in high farming, the biological conditions in the soil, the composition of green crops with particular reference to the sugars and starches, the effect of poisons on plants, and the distribution of weeds. This year, in commemoration of the centenary of Sir John Lawes' birth, the Rothamsted Experimental Station is appealing for a sum of £6,000 (\$29,160), which with a further sum of like amount to be granted by the British Government out of the "Development Fund" will be used to rebuild the old subscription laboratory, now showing structural defects and so provide much needed additional accommodation. Upwards of \$20,000 has already been subscribed for the purpose.

From the modest beginnings we have endeavored to describe how the Rothamsted Experiment Station has grown to important dimensions as a State-aided institution with a staff all told of about thirty, including, besides the Director, nine research chemists, two botanists, two bacteriologists, a protozoologist, a soil physicist, a farm manager and four research scholars, besides nine secretaries, clerks, assistants and laboratory boys.

PRESENT AND FUTURE WORK.

Recently, under the guidance of Dr. Russell the writer was able personally to inspect the Laboratory buildings and the Pot Culture Station, and to study the effects of partial sterilization as illustrated by chrysanthemums (See Fig. 5). It was easy to trace the effects of the treatment in the growing plants, those in the treated soil having taller stems of deeper green and more robust vegetation as compared with those in the untreated pots.

In England the factor governing fertility is usually the nitrogen in the soil, and consequently a special study is devoted to the production of nitrogenous plant food and the sources of the loss to which it is liable. The good English farmer generally obtains high yields, and it is doubtful whether he can get economically much higher yields owing to the climatic conditions. But the process of getting high yields always involves waste, and the returns from nitrogenous manures are successively less as larger amounts are applied. The wastes and losses of nitrogen from the soil are now being very carefully studied at Rothamsted. Another line of work is the testing of the composition of the crop with a view finally to ascertaining what are the factors that determine quality. The best hope of the English farmer, and indeed of the American farmer also, is to produce crops of high quality. At present very little is known as to what really constitutes quality or how it may be secured. The investigations that are now being conducted will, it is hoped, ultimately throw light upon the very intricate and elusive problem of quality in farm crops. In all

these investigations the results have been and will be of universal value, and it is to be hoped that the coming centenary will furnish the occasion for securing to them a substantial and widespread support.

The embargo placed by the British Government on the exportation of wool is proving a thorn in the side of growers of Blackface wool in Scotland. The stores of wool brokers there are overloaded with thousands of tons of that material, and a move is being made by some Scottish agriculturists to petition the Government to relax the embargo in so far as the exportation of Blackfaced wool to America is concerned. Evidently the classes of wool from which khaki clothes for the army are made do not include Blackface wool. Manufacturers of khaki maintain that their machinery is not adapted to deal with this wool, but some Scots more far-seeing than their kin have made "samples" of khaki from selected Blackface wool, and while that cloth is not so smooth as cloth made from other wools, it is strong and should wear well, and could easily be utilized in connection with soldiers' clothes.

The English Hackney Horse Society has received a letter from the American Hackney Horse Society stating that the rules governing admission to the American Hackney Stud Book had recently been amended to admit of registration therein of horses registered in the English Hackney or Canadian Stud Books. The English councilmen have sent the American brethren a letter of thanks for this "friendly action" as it is officially described.



Fig. 3—Interior of the Rothamsted Laboratory.

specific agent these larger organisms are destroyed, it has been found possible to restore or increase fertility. The discovery has opened up a new field of investigation which promises to yield fruitful results.

SUPPORT FROM THE STATE.

In 1912 Dr. Russell succeeded to the directorship on the resignation of Mr. Hall, and in the following year (1913) a new wing was added to the existing buildings. This, costing about £3,100 (\$15,066) was built by a grant from the newly-formed "Development Fund" of the British Government, the grant being conditional upon the raising of an equal sum from private sources for the taking over and stocking of a new experimental farm of 230 acres. This sum was duly raised, and the farm acquired by the efforts of the Society to which reference has already been made. Fig. 4 shows on the left the old subscription laboratory and on the right the new wing with the James Mason Bacteriological Laboratory in the centre.

An annual grant of £2,500 (\$12,150) was also made to the Station by the Government; so that the experiments are now partially supported by the State instead of continuing to be entirely a private enterprise as in the time of Lawes and Gilbert. The new wing, which is shown on the right in the illustration (Fig. 4) consists of a large soil laboratory, with director's room on the ground floor, botanical and chemical laboratories, library and other rooms on the first floor, and a glass house for water cultures on the roof. In the basement are special rooms for polarimeter work and for soil incubations. Electrical current is generated in an adjoining dynamo and battery

The Danger Point in Milking Shorthorns.

"Who would run, that is moderately wise,
A certain danger for a doubtful prize?"

It has been said that absent danger appears much greater than it really is, and that the nearer the thing feared the less the fear felt. This may or may not be true of the subject about to be discussed. The word "discussed" is used advisedly as this article is not to be read and digested as advice.

"Advice is seldom welcome; and those who want it the most, always like it the least."

Therefore, it is not the intention to incorporate any "advice" in this discussion.

The milking Shorthorn has had a rapid rise to fame until at the present time almost any Shorthorn cow which has had a calf, whether she nursed it or whether she was hand-milked is heralded as "a great milker," and the smooth, even, thick, low-down, blocky cow, with little else than four teats to show her milking propensities stands side by side with the slightly more unstanding, longer, narrower, peaked-shouldered, and wedge-shaped breed sister, swinging a capacious udder at the end of long and tortuous milk veins and giving every indication of specializing in the dairy end of her business as a cow, and both are called "heavy milkers." Five years ago, yes, three years ago, the wedge-shaped cow would have sold in Canada for little if any above grade-cow value; to-day thanks to R.O.P. agitation she may double the price of her thick, fat sister even though the latter may be owned by someone bold enough to call her a "heavy producer," and no one seems to marvel at the changed condition. Three years ago a Shorthorn was all beef; to-day her beef does not seem to matter, it is milk that makes sales and she gives milk in large quantities. Danger is imminent. The grand old breed must not suffer disastrous division. Breeders must

"Keep together here, lest running thither,
We unawares run into danger's mouth."

Two dangers present themselves and they may be so close that they are not feared or they may be so far remote that they have never been seriously impressed upon lovers of what they believe to be the best that is in the bovine race. What would happen to the breed if all straight beef-type Shorthorns, many females of which will scarcely give enough milk to feed their calves, were sold as heavy milkers sending disappointment and discouragement to thousands of seekers after the dual-purpose cow? What would be the result if all Shorthorns were bred and fed and pushed to the limit of high milk records regardless of beef development? Are the nettles of danger not in evidence and ready to harmfully prick the Shorthorn, and is it not about time breeders made an effort to pluck the flower, safety? All Shorthorns are not milking Shorthorns and milking Shorthorns are on dangerous ground when forced to give anywhere from 12,000 to 15,000 pounds of milk.

The folly of switching at one throw from beef to milk is plain. There are types and strains of Shorthorn cattle, which, after generations of top-crossing, would not produce good milkers. What nonsense to dwell upon the milking proclivities of cows which are very light milkers as

many of the extreme beef type are. What foolishness, as far as the future of the breed is concerned, to sell cows supposed to have records when these same cows have never been hand-milked and would kick any person out of the stall, who attempted to milk them in a pail, and kick at them after they were out. Hundreds of people are looking for milking Shorthorns, and selling them non-milkers will very soon hurt the business and the breed.

And why all these agitations and over-drawn claims anyway? There is still a place for the extreme beef type. The outlook for beef raising was never more rosy from the standpoint of prices. The beef Shorthorn is as good a cattle proposition as walks on four legs. It is unfair to the breed to forget the value of its beef or to drown this in over-estimation of the milk given. The future of beef is assured, and the Shorthorn, in a race for more milk, must not be out-distanced by other breeds in the one class in which it stands supreme, beef. Offering all kinds of Shorthorns as "milking Shorthorns" is a danger point already reached and both the milking and the beef strains are sure to suffer if the practice is persisted in.

A graver danger threatens, however. Exponents of the specialized dairy breeds are prone to snigger at the comparatively small records of milking Shorthorns when lined up with some of their 20,000-lb. milk machines. They claim that the dual-purpose Shorthorn is a myth and that meat and milk in the same animal is an impossible goal. Notwithstanding the strong statements of specialized dairymen and the railings of dairy papers there has come into being a dual-purpose cow capable of giving from six thousand to nine thousand pounds of milk in one lactation period and at the same time producing a calf, which, properly fed, is ready to take his place at or near the top of any market for beef, veal and baby beef to the fattened and finished two- or three-year-old. True many Shorthorn cows give more milk than 6,000 or 9,000 lbs. and herein is the greatest danger. Critics, opponents of the dual-purpose idea have always maintained that a cow must either be a dairy cow or a beef cow and that there is no, what they call, half-way point to mark the dual-purpose status. A heavy-milking Shorthorn to them is a dairy cow, and a light milker a beef cow. Are they to be vindicated in such a contention? If the owners of dual-purpose Shorthorns are not careful they will find that specialized dairymen are not far wrong when they say, "Your 15,000-lb. Shorthorn is just as thin and wedge-shaped and just as pronounced in dairy type as is my 15,000-lb. Holstein or Ayrshire."

The question which is now arising in the minds of some successful breeders is, "Can a cow which is forced to the limit in production (say 12,000 to 15,000 lbs. of milk) remain a dual-purpose cow or will she slip into the dairy class? This is the big question. This is wherein lies the greatest element of danger in the milking Shorthorn business in Canada. Little was it thought when definite steps were taken at the annual meeting of the Dominion Shorthorn Breeder's Association in Toronto in February, 1913, that before the end of 1914 milk would be the prime consideration in Shorthorn cattle in this country and the most talked-of single point in connection with the breed's make-up. Our demonstrators have bought them; good feeders and poor feeders have purchased liberally; all are sure they have them and the one goal is milk at any cost and who can produce the most per cow.

It has developed into a regular horse-race contest against time, to establish milking Shorthorn herds that will reproduce milkers. As with the dairy cattle breeders the craze for high records has gripped Shorthorn men and is holding in its relentless grasp almost every breeder who has a cow entered in the Record of Performance. The grip tightens as time goes on and the race becomes closer. By extra milkings and by careful and more frequent feeding a few extra pounds of milk per day are squeezed out of the capacious udder which has developed under the supreme effort until it would do justice to a high-record Holstein. While all this is going on, gradually, and often unobserved by the owner, the meat slips from the ribs of the cow; she goes down in flesh and takes on the matronly, but pointed, appearance of the extreme-type dairy cow. She is wide behind and narrow in front, and as a beef animal her stock in trade is much below par. Still the process continues and the owner, wishing to indelibly stamp her progeny with the milk-producing sign, breeds the cow to a narrow, rough, coarse, ill-formed bull because this bull is out of a high-record cow and has behind him, on both sides of his pedigree, animals noted as milk producers. The progeny, if this is carried on generation after generation, and if there is anything in the law that like begets like, must needs be milkers; but what of the beef end of the dual-purpose standard? Will it not have been sacrificed on the altar of overdone milk production? How many generations will it take to make a 15,000-lb. dairy producer out of a 7,000-lb. dual-purpose cow by extra pushing for high records? And then where is the dual-purpose cow and where is the beef end of the game coming in? This is the end that the dairy critics foresee for Shorthorns, only they belittle the cow as a milker and do not credit her with latent possibilities capable of being developed up to the point of 12,000 to 15,000 lbs. of milk per year. There is such a thing as getting too much milk from a dual-purpose cow. Milk is made at the expense of meat. This must never be lost sight of and meat is generally put on at the expense of milk. The happy medium is the dual-purpose cow.

The question arises then—How much milk per cow should a herd of big, thick milking Shorthorn cows give on an average? Who can answer? A great deal depends upon the cows and their feeder, but does this sound reasonable,—Big cows weighing from 1,400 to 1,600 pounds each or heavier, and carrying a fair amount of flesh as well as showing the type capable of producing calves which could be easily fattened to top-notch finished beef, may be considered very satisfactory and suitable dual-purpose cows if they practically maintain their condition and produce from 6,000 to 9,000 lbs. of milk per lactation period of anything under eleven months? Perhaps 9,000 lbs. is a little high. It is a good herd that can be made average 7,000 lbs. per cow. It must be remembered that the average production of the dairy cows of Canada, dairy breeds and heavy milkers included, is only between 3,000 and 4,000 lbs. per cow, per annum. Dual-purpose cows then, as a herd, might be considered good producers if they average less than 7,000 lbs. each. As a dual-purpose proposition the herd averaging 7,000 lbs. per cow and raising big, healthy, fairly thick, meaty heifers, bulls and steers seems a safer proposition than the herd of phenomenally high milk producers but the progenitors of narrow, skinny, weak-constituted calves. Some of the plainest bulls to be found



Fig. 4—Rothamsted Laboratories, 1914.



Fig. 5—The Pot Culture Station.

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in England are at the heads of milking Shorthorn herds and they have nothing whatever to recommend them except pedigree. Their calves are further evidence of this fact. It is only a few years, if care is not exercised until Canadian Shorthorns will be in a much worse position, for there is not the number of big, robust, strong-constituted cows in this country to work on. Canadian Shorthorns, dual-purpose or beef type, must not be spoiled. The so-called Scotch type with plenty of substance often produces fair milkers. English Shorthorns are recognized as good milkers. Beef must not be entirely sacrificed or the breed's greatest asset is gone. Milk must not be ignored or much of the utility of the breed is lost. Utility has demanded more milk. If this half is carried beyond reason utility will demand more beef. The danger point is not far off, yea, is it already reached? The dual-purpose cow is a reality. Neither meat nor milk must by its over-development be allowed to drive her into oblivion. The matter is in the hands of the breeders. There is such a thing as too much milk. The prize is doubtful; the danger is certain. The goal is difficult, but this is no reason why it should not be successfully reached.

The Feeder Lamb From Birth to Block.

By R. H. Harding.

In discussing the feeder lamb from birth to block, from the viewpoint of showing it to be profitable, it seems to me to be important that the foundation of the flock should first be dealt with, as I believe therein do many fail because they neglect to lay good enough foundation. I will divide my subject into three parts, viz., Selection, Feed, Care.

SELECTION.

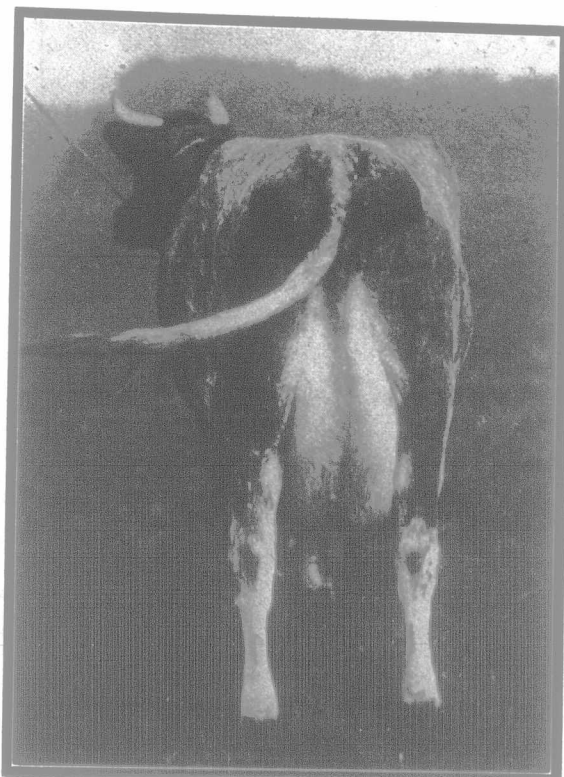
While good judgment must be exercised in each of these, if the best possible judgment is exercised in selecting the foundation it will not require nearly the energy to put the lambs on the market in good condition. In other words, if the foundation be of poor type, long-legged, long-necked, flat-ribbed, etc., all the good judgment conceivable will not enable a man to finish a first-class article from such. In order to get the lamb that will develop in proportion so as to finish practically a perfect carcass, or as near to it as is attainable, and thereby capture the very highest price in the market, requires more skill and better judgment than very many sheepmen are putting into this branch of their business. (I make no reference to breeders of pure-breeds, excepting when I refer later to the class of a ram the farmer should use). Many men imagine that, while they are breeding only grades for slaughter, anything will do. This is just as great a mistake in producing lambs as it is with producing steers, and I need not refer to the difference between the good kind of steers and the poor kind; anyone can see it.

No matter what the choice may be as to the grade or cross, the ewes should be of a mutton conformation. Perhaps a word of explanation describing what I mean might be of some benefit to someone. The kind of head that indicates a good feeder is thick, rather than long, broad between the eyes, broad poll on a short, thick neck, blending full into the shoulders; shoulders even and full with the side, top-line, straight, well filled in behind the shoulders; ribs, well-sprung hind quarters full and deep; broad, deep chest to insure plenty of heart and lung room; wool dense to protect from storm; and plenty of bone of good quality, which will be indicated by the sheep standing right up on its toes, as it were, rather than being broken down on its pasterns as many are. Some may say—"what have these points to do with the feeder lamb?" In answer to such I am sure that lambs from ewes possessing these qualities, if they are sired by a ram of equal quality, will give their owner substantial returns. Having outlined what we want in the ewe flock it is equally important that we select a first-class pure-bred ram, first-class from a mutton viewpoint. It is not so very necessary that the fancy points, such as wool on the face, etc., be perfect, but it is important that the form be right, don't let anyone persuade you that a good grade is just as good as the pure-bred. I would rather use the poor pure-bred, because he is bred along a straight line, than use a good grade, because his lines of breeding are so varied that you do not know what you are likely to get. Now having selected a ram, stick to that breed; avoid inbreeding; select a few of the best and most uniform ewe lambs to take the place of the older ewes that should be discarded. You will thereby improve your flock from year to year, so that it will

soon resemble the purest flock in the community. I would certainly advise anyone keeping a grade flock to be satisfied with nothing but the best. The best are the cheapest in the end.

FEEDS.

In order to have the flock produce the greatest profits possible it is necessary to grow certain feeds that will under average conditions give the best results, and one thing worthy of note is the fact that the best feeds for sheep are also great soil builders, viz., red clover and alfalfa, the best of all feeds. Pea or bear straw, well-cured, also makes excellent sheep feed. Oats, peas and tares



An Udder Built for Business.

mixed, sown fairly thick and cured green also make desirable winter feed. For fall feed there is nothing better than rape for both sheep and lambs, but it is preferred to have a run of grass pasture in connection, as this counteracts the heating effects of rape, which, if fed alone, sometimes causes trouble. White turnips, cabbage, and kale are also excellent fall feed for the flock. Swede turnips should be provided for winter feed. Mangels or sugar beets are also splendid for young lambs or nursing ewes, but are not desirable food for the in-lamb ewe, as they tend to develop large, flabby, weak lambs. They are not safe feed for rams.

CARE.

Under this head there are several things to be considered. As we have already recommended the

they can be destroyed so easily. A cool, dry, well-lighted and well-ventilated shed, with large doors (to remove the danger of crowding and consequent injury) preferably opening to the south into a large exercising yard, where colts and horned cattle cannot molest the flock is preferable to a close, warm, building, (fairly warm pens are necessary for lambing in). Considerable loss is often incurred by the flock from kicks and hooking where the sheep run with other stock. They should now be liberally fed with such foods as have already been recommended, but care should be taken not to feed too heavily on roots. I think two pounds per head per day can be fed with safety and profit, and more may be fed if the sheep are getting the exercise that is necessary. If the necessary exercise cannot be secured in any other way a portable rack at the opposite side of the yard, in which to give them their mid-day meal, solves the problem pretty well. With a constant supply of fresh water, salt and sulphur, the ewes should reach lambing time in good flesh without grain. However, if any are seen to be failing in flesh, due, perhaps, to the heavy drain on the system supporting two or perhaps three lambs, a small grain ration in time will often prevent serious trouble later on; two very common causes of failure with lambs are caused by ewes thin in flesh having very little or no milk, and thereby stinting their lambs or perhaps starving them outright, and ewes being overfed with grain whose milk is so strong that it causes constipation or white scours, either of which will set the lambs back several days or perhaps weeks.

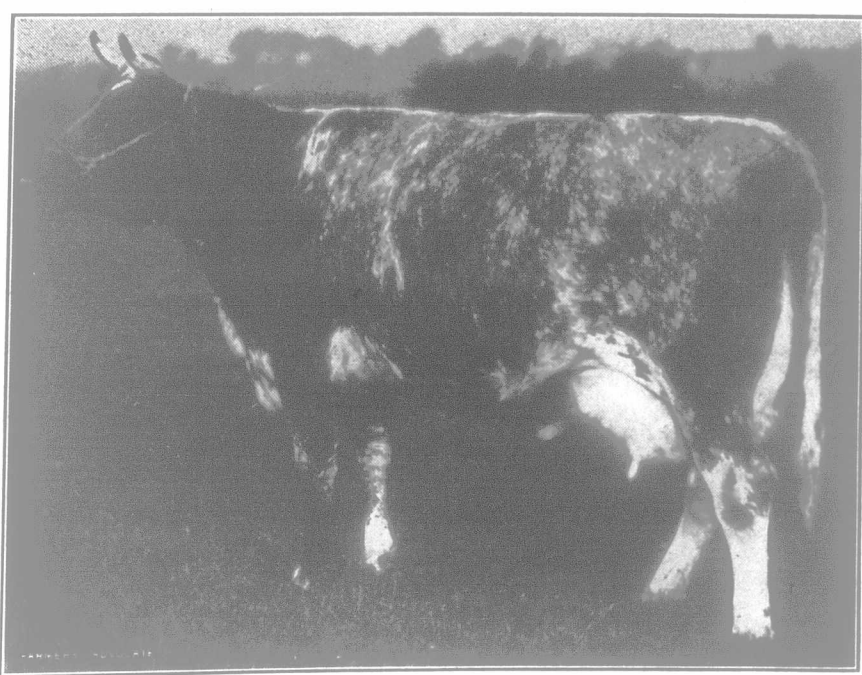
Lambs that have received a normal start should make daily gains of one-half pound or more until ready for the block. A lamb should at no time be at a standstill. To accomplish this success, if the flock is yet in winter quarters, the ewes should be liberally fed. To their regular ration should be added a light feed of oats and bran, and all the roots they will clean up. In addition, a creep should be supplied into which the lambs can go unmolested and where they will soon learn to eat oats, bran, oil cake and pulped roots. They will usually start to eat at about 10 days old, and it is of great benefit to both ewe and lamb.

All lambs should be docked when about a week old. What is more unsightly than a bunch of un-docked lambs going to market in the fall finished on a field of rape or clover and manure to the heels? All male lambs should be castrated while young. My plan is to do it at about three weeks of age, by cutting off the end of the scrotum and drawing the cord out without cutting it off. Some advise cutting off the whole sack close to the body. In this case I would advise doing it at three to seven days, in either case an antiseptic should be applied, and clean bedding provided to offset the danger of blood poisoning. It is important that the knife or pinchers used in the operation should be thoroughly clean.

One more simple operation is necessary before the lambs are turned away to pasture—they should be dipped. While the whole flock should be dipped, if the ewes are shorn (unwashed) as they should be before they are turned out and the lambs are thoroughly dipped about a week afterward, practically every tick will be destroyed, as they have gathered upon the lambs for protection. If small lice are in the flock, all should be dipped.

Lambs from this on should get no setback if sufficient latitude is given them. Pasture should be so arranged that the flock can be changed from one field to another every two or three weeks. They will do better, and less acreage will be required. There should be a field of second-crop clover, or a good substitute set apart for the lambs at weaning time (early in August). A very good substitute is rape sown in the corn field just ahead of the last cultivation. In average years this plan provides considerable feed and the lambs will also look after any weeds that may have escaped the cultivator. Lambs should have abundance of green feed, rape, clover, etc., from now until they are to be marketed, and they will stand shipping all the better if a small allowance of oats and oilcake is added to their rations.

I think the custom of marketing only partially-finished lambs during the fall should be discouraged, and all thin lambs kept until mid-winter or early spring and finished, thereby doing a three-fold good, first, feeding the farm; second, supplying an article of food that will surely raise the standard of home-grown lamb and thereby develop trade, and third, by putting into the pocket of farmers the price that only the choice article will command.



The Right Kind of Dual-purpose Shorthorn.

use of a first-class, pure-bred ram, we will assume that the flock is bred at the usual time, viz., October or November; (although there is another class of lamb-raising that is especially profitable, I refer to the raising of winter or what is commonly called hot-house lambs, but as this is a class somewhat out of the ordinary I will not discuss it). It is necessary that the in-lamb ewe be well nourished through the winter. She should be dipped before cold weather sets in, in order to destroy ticks, lice, etc. There is altogether too much loss incurred by keeping such vermin when



A Lincolshire Quartet Getting Ready for the Show.

Ontario Farmers and Finance.

By C. F. Bailey, Assistant Deputy Minister of Agriculture, Ontario.

In these troublous times, when the British Empire is engaged in her supreme struggle for liberty, the nation will naturally look to Canada to supply a larger share of foodstuffs than she has heretofore, due to the fact that England can no longer look to her European markets for usual food supplies. It is to be hoped, therefore, that the farmers of Canada will respond to the urgent call and show their loyalty to the Empire by making an earnest effort to increase the acreage under crop, eliminate waste in every possible degree, and make the most of every opportunity to increase the output from their farms. It naturally follows that increased production will require more capital to finance farming operations than has been necessary during the past few years. Are the farmers of Ontario prepared to meet the demand? This is the question in the minds of a great many people at the present time.

Fortunately, the farmers of Ontario have passed through a period of favorable seasons, fair crops, and good prices. From a recent investigation into the financial status of Ontario farmers, conducted by the Department of Agriculture, it is gratifying to learn that during the fall of 1913 farmers had on deposit alone in the banks \$100,000,000. This investigation also showed that 45% of the farms of the Province were mortgaged, to the extent of one-third value, which means that only 15% of the total value of Ontario farms was covered by mortgages, and of this latter amount 7% was held by farmers themselves. It is also pleasing to know that farmers of good standing had no difficulty in securing money at current rates of interest. Knowing all this, and having some idea of the comfortable homes and the apparent satisfactory conditions existing in rural Ontario, one would at first be led to wonder why there should be any sound argument in favor of rural credit in Ontario. However, while we speak in a general way of the prosperity of the average farmer, it is undoubtedly true that there are farmers who would welcome a credit system whereby money could be easily secured at reasonable rates. In many instances, these men are farmers' sons who have taken over the homestead or who are anxious to make a home, but have very little capital. We also must not overlook the fact that during the next few years there will, no doubt, be an ever-increasing number who will be anxious to give up the struggle in the city and move "back to the land." These people in most instances, would be helped very materially if they could be supplied with a reasonable amount of capital at moderate rates of interest.

In solving this problem, our attention is naturally directed to the older countries of Europe, where there are many and varied forms of rural credit systems in existence. As far back as the time of Frederick the Great, rural credit was one of the great European problems, and the success attained has meant much to the wealth of those nations. However, before discussing this question further, let us first compare rural conditions in Europe with those that obtain in this coun-

try, in order that we may be in a better position to judge of the credit systems in Europe and their adaptability to our present conditions. In Europe we have a very densely populated country from which it naturally follows that the farms are unusually small; for example, two-thirds of the farms in Germany comprise less than 13 acres each, and one-third have an area of less than 2½ acres each. In addition to this, we find in Germany particularly, that farmers do not live on their farms but are grouped together in villages. The average farmer in Europe has very little education in its broad sense; he rarely travels outside his own community, and as a result is a man of narrow views. He is a plodder, whose ambition in life is not so much to become wealthy as it is to provide himself and his family such as his forefathers provided. His wife and family assist him with all the farming operations, and he has very few wants that are not supplied by his land. He lives very simply, rye bread and vegetables being the main articles of diet. Therefore, his profits, though small, are available for the repayment of loans and taxes. Another tie which binds European farmers is the tie of common religion. Every village community has its pastor or priest, who takes an active interest in the welfare of the community and lends personal assistance to all its activities. Then, too,



Glendarg Castle.

The gnarled branches of the aged trees now afford more protection than the crumbling castle walls.

it must not be forgotten that farmers of each community are of the same nationality, of the same temperament, with naturally the same ideals, customs and desires. In comparison with these conditions, we have in Ontario, a much more sparsely settled country, very much larger farms, and every farmer living on his farm. Again our farmers as a class are far more intelligent, and resourceful; they are also much more ambitious and individualistic, and always aiming to better their surroundings and acquire wealth. The Ontario farmer seems to be imbued with a desire to conduct his business in his own way and to his own personal advantage, and what is even more apparent, he has a disinclination to shoulder the financial burdens of others.

It will readily be seen, therefore, that conditions in this country are very different from those in Europe, and it would seem unwise to assume that any European credit system would apply to our conditions simply because it has been a success in Europe. To begin with, the history of co-operation in Europe plainly shows that it has been the result largely of dire necessity, and it is questionable whether the farmers of this country have been made to appreciate sufficiently the need of rural credit banks—a system much in use in Europe. It would seem essential that farmers should succeed with some of the simpler forms of co-operation, such as buying, selling, manufacturing, etc., before attempting the more complicated forms. In the early stages of co-operation, we must expect failures, and these failures should be met by those who have for their object their own profit. This would seem to apply particularly to banking, as failures in banking would be very far reaching, and naturally result in hardship to innocent ones. In fact, even in Europe, where conditions are so favorable to credit associations, they have not had uninterrupted success, for during the year from June, 1910—June, 1911—about 60 of these associations dissolved, and according to the year book of Co-operation Societies in Germany, "Their dissolution was principally owing to insufficient knowledge on the part of the founders, of economic and credit associations. Several societies became bankrupt more on account of ignorance of proper management than on account of dishonesty." Last year in Austria, one of these large central societies was in the hands of the Government, and in the process of liquidation; its management had proved inefficient and unsafe, and the inevitable crash was pending. This naturally meant financial ruin throughout the province, as the central bank had deposits from 800 federated societies, and these societies in turn held the deposits of the farmers. The Government advanced \$1,000,000 to pay the liabilities and took over the assets. The disastrous failure of the Genossenschafts Bank, a central co-operative association at Darmstadt, Germany, also came to light last year. It would seem that not only the entire capital of almost \$600,000 has been lost, but that the deposits of the farmers are also largely lost. These are some of the failures that have been made known of late years, and it is impossible to say what are the existing conditions of many such societies, for the reason that little or no government supervision is maintained. While I do not

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wish to be interpreted as being opposed to a system of rural credit banks, yet it would seem questionable whether it would be advisable to introduce such a system until after we had demonstrated the possibilities of success in allied branches of co-operation, and that our farmers had learned the value of team work, and thoroughly understood the underlying principles of co-operation.

Other schemes for financing the farmer have been offered. Among them one that has many things to commend it is the loaning of money by the Federal Government to the township municipalities on their municipal debentures for a term of years, repayable on condition that such municipalities loan the money to ratepayers for agricultural purposes—the loan to be made similar to the Ontario Drainage Act. One of the most outstanding advantages of such a plan would be the fact that it would be handled through machinery already in existence. In nearly all countries of Europe the Government assists the farmer in obtaining credit, and in some countries, particularly in France, the money loaned by the Government for farming purposes is very great. It is also true that in Australia and New Zealand, it is a common practice for the Government to advance money to the farmers. However, a study of conditions in the various countries in Europe would seem to show that the farmers become more self-reliant and better able to shoulder their own burdens when they are not dependent on the Government.

A system that seems suited to conditions in Ontario is what is known in Germany as the *Landschaft* or land mortgage bond system. This system was inaugurated in Prussia in 1767, and it is in this state that it has seen its best development. Up to 1912 the Prussian *Landschaften* had issued mortgage bonds and advanced loans on mortgages to the total amount of \$750,000,000. The one great salient feature of this system is the fact that there is no possible chance of loss, provided there is proper government supervision. The *Landschaft* is simply a landholders' co-operative association, for the purpose of getting mortgage credit, and is under government control. Those wishing to secure loans make application to a central board, which has the power of issuing bonds. The borrower cannot get more than 66% of the value of his land in bonds; and to insure the proper valuation of the land, it is first valued by members of the association in the community in which the borrower lives, then by an expert such as a professor of agriculture or someone equally well qualified, and finally by officials from the central board. The interest paid by the borrower on his mortgage is always $\frac{1}{2}$ % more than the buyer receives as interest on his bonds. For instance, if the borrower pays 4%, the buyer receives $3\frac{1}{2}$ % from the *Landschaft*. This $\frac{1}{2}$ % is used firstly to meet running expenses and the rest of this $\frac{1}{2}$ % is paid to a sinking fund, so that in 54 years the whole mortgage is paid back to the *Landschaft*. Thus there is no mortgage on the borrower's land—the money is merely loaned him till the mortgage is paid off, i. e., amortized. If the borrower fails to pay the interest, his land is sold, and the amount loaned him is paid back to the *Landschaft*, while the rest is turned over to the borrower. This central board spoken of above is under the direction first of a specially appointed Royal Commissioner, and secondly of the Minister of Agriculture, Crown Lands and Forests. Apart from certain limitations enacted by the State, the *Landschaft* is a self-governing institution. The regular business is conducted by officials of legal training, and these are the only employees receiving salary. Honorary officers are required to have property qualifications, and are appointed by the general meeting of the *Landschaft*—these members receive no salary. Thus the expenses of administration are reduced to a minimum with the result that the Prussian *Landschaft*, which possessed no capital when first organized, in 1912 had a reserve of \$14,000,000—savings on cost of administration. It will be readily seen that the holder of a land mortgage bond has every security, as the bonds are never issued in excess of the total amount of mortgages; the mortgages are never granted beyond two-thirds of the value of the land; the amount of debt is being constantly reduced by

amortization; the cost of administration is kept at a minimum, and the reserve fund of the *Landschaft* is liable for all claims. In addition, unlike the common mortgage the mortgage bond can be realized at any time; thus even Government bonds could mean no more to the investor than land mortgage bonds, and as a matter of fact the German farmer finds his securities in greater demand than any other in the market.

In a Province such as Ontario, where land values are practically constant, a mortgage bond system such as described above with a few modifications to meet our own conditions, should prove popular both to the borrower and the investor. Remembering that the farmers of Ontario have \$100,000,000 on deposit in the banks, drawing interest at 3%, it would seem feasible that a system of this description could be adapted to our needs, whereby this money might be used (through the purchase of bonds) in relieving the dependent farmer, enabling him to secure his money at a lower rate of interest, and at the same time considerably increasing the money earning power of the money already on deposit.

However, this is not a matter which can be

The Outlook for the Canadian Dairy Farmer.

By Prof. H. H. Dean.

These are troublous times. Many are saying that they are times of prosperity for the Canadian farmer. "Farmers are coining money," is the way one trade paper expresses it. Those who are in close touch with farm conditions fail to see where the "coining" comes in. Speaking for myself, the cash returns on a 100-acre farm for 1914 are not likely to be more than half, or two-thirds at most, of what they were in 1913. The falling off is chiefly in fruit returns. The patrons of cheese factories and those having hay, oats and wheat for sale are most likely to benefit from the special conditions which have arisen during the year 1914, which will be recorded in history as the year when most of the so-called civilized people of the world went military mad. However, we are to speak more particularly regarding the "Outlook for the Dairy Farmer," as distinct from the beef, grain, or fruit farmer, although in Ontario and other parts of Canada, we have these all more or less "mixed" on our farms, hence our farming is of the "mixed" variety rather than specialty farming.

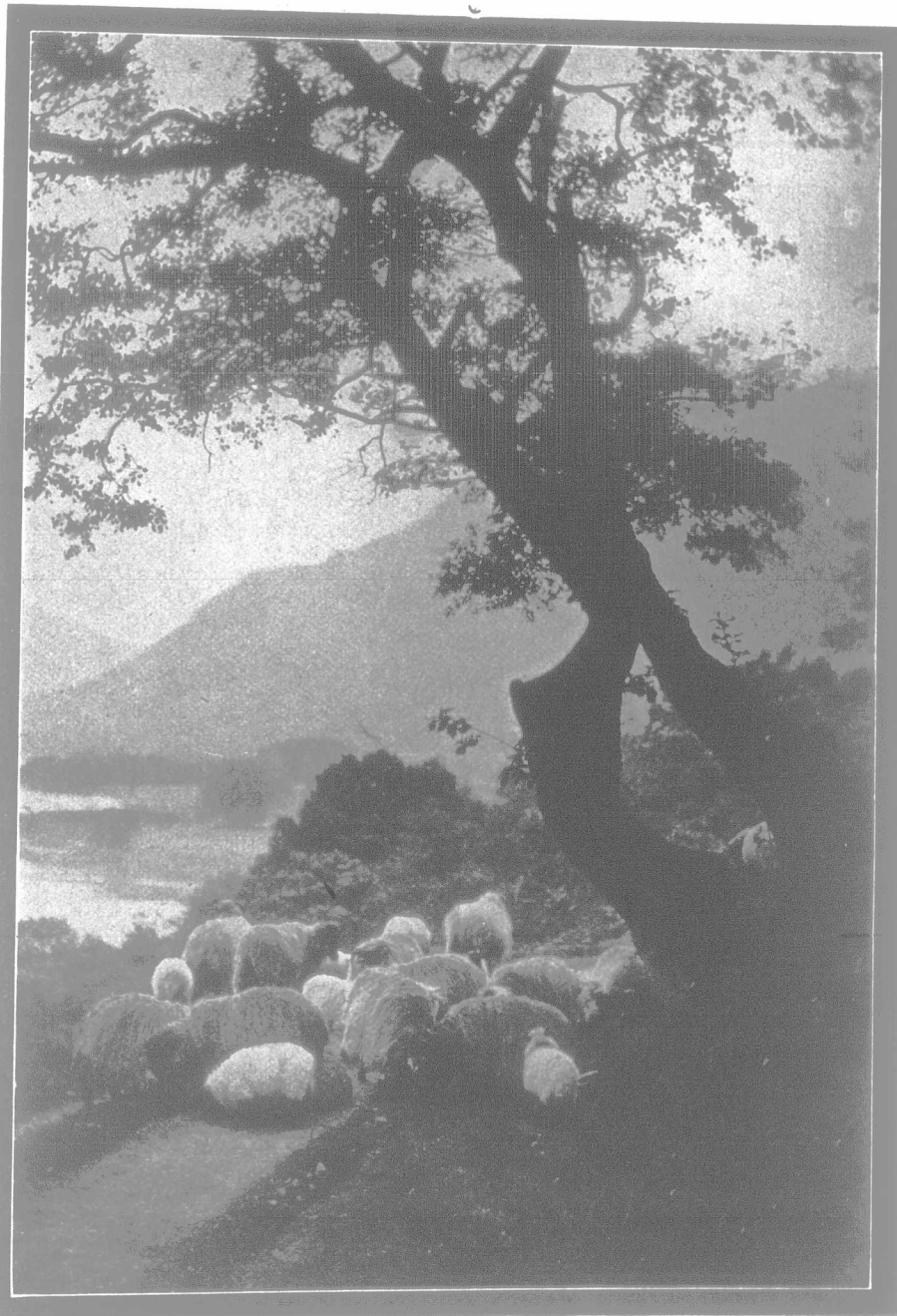
THE COW.

Starting with the cow, we may say that the world never saw so many high-producing cows as are to be found in dairy herds at the present time. One cow (May Rilma, a Guernsey) has completed a year's record during the present year of 19,673 lbs. milk, 1,073.41 lbs. milk-fat equal to over 1,250 lbs. butter, calculated by adding one-sixth to the milk-fat—commonly called "butter-fat." Another breed has two cows with over 1,000 lbs. milk-fat each to their credit in $\frac{1}{2}$ year, one of them giving over 25,000 lbs. milk, and the other over 27,000 lbs. milk in the year. This same breed (Holstein-Friesian) has 33 cows in the United States with over 800 lbs. milk-fat each to their credit in a year, and thirty-two of these gave, each, over 20,000 lbs. milk. Fifteen of the number gave 25,000 lbs. milk and over in one year. In the Canadian Record of Performance Report No. 6 for the year March 31, 1913, to March 31, 1914, 327 cows and heifers have reached the required standard for entrance to the "Who's Who" for the breeds of pure-bred dairy cattle. In consequence of the cow-testing propaganda, which includes Record of Performance, Record of Merit, Cow-testing Associations, and private testing, there has never been so many good doers at the pail among dairy stocks as at present. A purchaser can now buy tested females, or stock from tested ancestry, with a reasonable certainty of securing profitable animals, as was never the case to such a degree before. All this has cost money, but the results more than justify the cost. Our breeders of pure-bred dairy stock are enthusiastic on this testing question, because it pays. One instance will suffice. A young breeder told the writer that he offered a young bull from an untested cow at about \$50.00 and was unable to sell. He tested the cow officially, the cow made a good record, and if I remember rightly he sold the calf for \$150.00. The test probably cost him \$20.00 to \$25.00, but it was money well spent. We may expect the dairy cows on average farms to improve in quality as a result of the dissemination of improved blood among farmers' herds, many of whom have kept "just cows" in the past.

FEEDING THE COW.

Next in importance to the cow herself, comes the feed of the cow. On this point we are not making the progress which the subject merits. Outside of the growing of more corn and building of silos, with a few farmers growing and feeding alfalfa, not much progress has been made—most farmers still depend largely upon grass for summer feeding. Scarcely a season goes by without a serious drought in some dairy district, which means heavy loss not only to the farmers, but also to the cheese and buttermakers of the district who are depending upon the milk to keep their manufacturing establishments running. The best remedy for this is a summer silo, filled with corn silage. Such a silo is the best insurance policy which a dairy farmer can have.

No plant furnishes so much feed per acre as



In the Highlands, near Strathyre.

adopted hastily, but must be worked out carefully after some inquiry and perhaps, much education. In the meantime, if the farmers of the Province will exert the enterprise and progressiveness possible through their own resources and through the financial machinery already at their disposal, I am sure the result will be one entirely satisfactory to them individually and one which will reflect credit on the country as a whole from the highest patriotic reasons.

Much Enjoyed.

Editor "The Farmer's Advocate":

We do enjoy "The Farmer's Advocate" so much and would not like to be without it.

A. L. WALKER.

This is the season when the careful feeder gains a big advantage over an inexperienced stockman. Overfeeding is disastrous, underfeeding cannot bring results. It is the man who can strike the happy medium that makes the cheapest beef, pork and mutton.

does the corn plant, and the silo is the best means to preserve the corn, in a palatable, digestible and preserved condition.

One other principle of feeding cows may be mentioned. The bulk of the feed should be grown on the farm where it is fed, thus saving commission and transportation charges, and in this way lessen the cost of rations for producing milk. If feeds are purchased they should be those rich in nitrogenous material, such as cottonseed meal, gluten, oil-cake, etc.

CHEESE OUTLOOK.

The cheese trade has received the needed stimulus in 1914 to save it from threatened extinction. The prices at the close of the season of 1914 are very encouraging—around 15 cents per pound at the factory. The war of the nations in Europe, where cheese is used as part of the army ration, has resulted in a keen demand for the product from our cheese factories. In spite of this demand, the export trade for 1914 shows a falling off, of about 100,000 boxes of cheese as compared with 1913, and it is generally conceded that not many cheeses are held in store by Canadian Merchants, except for English customers. It is reported that some Wisconsin cheeses have been brought into Canada, to be exported. Owing to the failure in selling the cotton crop of the Southern States, where most Western U. S. cheese find a market, the cheese markets in the neighboring Republic have been comparatively dull and prices lower than on this side of the boundary line. This condition will, no doubt, be changed before the winter is over. The United States market will likely absorb all their make of cheese as usual before the season of 1915 opens.

Taking all things into consideration the dairy farmers of Canada who are patronizing cheeseries, have reason to be optimistic for a prosperous trade in 1915, more particularly if the war continues through the present winter and during next summer as seems likely at the time of writing, unless the War Lords have a sudden awakening from the horrible nightmare which they seem to be suffering from at present. While the Canadian Cheese farmer stands to benefit by war conditions in Europe, he would prefer to sell his cheese to peaceful nations who know the value of cheese as a human food in the building of muscle and brain for conquering the forces of nature and making these subservient to man's uses, rather than to sell it as a means to produce force to be used in the slaying of fellow creatures.

BUTTER OUTLOOK.

The butter trade does not seem so hopeful as does that of cheese. For some reason or other butter markets were "draggy" in November. One of the Canadian trade papers under date of Nov. 12th says of the Montreal market: "local buyers are restricting their purchases to present requirements as much as possible, whilst there is little or no demand from outside. There has been some enquiry from New York, and it is thought some business may result therefrom, as prices in that market have advanced sharply during the past week, fancy marks of creamery there having sold as high as 37 cents, and as our finest September or first-half of October creamery could be laid down in New York at 31½ cents freight and duty paid, there should be a margin left for the importer even if our choicest creamery only brought 33 cents to 34 cents, and surely the inside figure could be depended on." The last clause of the quotation opens up a wide subject for discussion. If fancy creamery butter is worth in New York 37 cents per pound, why should the writer of the foregoing seem somewhat doubtful about the finest grades of Canadian butter selling for 33 cents? The chief task before our dairy farmers producing milk and cream for butter-making, and for the buttermakers in our creameries, is to get after that extra four cents

per pound of butter. The New York market is typical of nearly all butter markets—fancy grades of butter bringing 4 or 5 cents per pound more than poorer grades. This extra price would pay the cost of manufacturing. The farmers who patronize creameries would consider it a great benefit to have their milk or cream made for nothing. It is possible to do this by improving the quality. A creamery making 100,000 lbs. butter in a season, will charge the farmers about \$4,000 for manufacturing. The sum might be saved by making a grade of butter that would class as "extra" or "fancy," and the patrons be \$4,000 in pocket. The chief thing needed in order to do this is to supply better raw material out of which the manufactured goods, butter, is made. The grade of butter turned out of creameries is largely determined by the grade of milk or cream furnished to the manufacturer. The season of 1915 ought to see a marked improvement in the quality of Canadian creamery butter.

CITY MILK AND CREAM TRADE AND CONDENSED MILK.

These three lines may be considered together for lack of space. The cities of Canada continue to grow at an almost alarming rate, for the future welfare of our country. People in towns and cities must have milk, for the children more especially. There is a never-ending demand for good milk in the centres of population, but the price is being advanced to the consumer without

lized and is likely to be more so, in Europe, by the present conflict.

The rearing of heifer calves for future dairy cows and the fattening of hogs, on dairy by-products, are two sidelines likely to be profitable in the future, but we could wish that the packers would offer a more steady bacon-hog market. It is like attempting to solve a Chinese puzzle to know when is the best time to market hogs.

On the whole, the outlook for dairy farming is hopeful, and those engaged in the dairy industry may rest assured that they are engaged in the most stable, and in an average of years, the most profitable line of agriculture in Canada.

Agricultural Development in the Maritime Provinces During the Past Decade.

By Prof. M. Cumming.

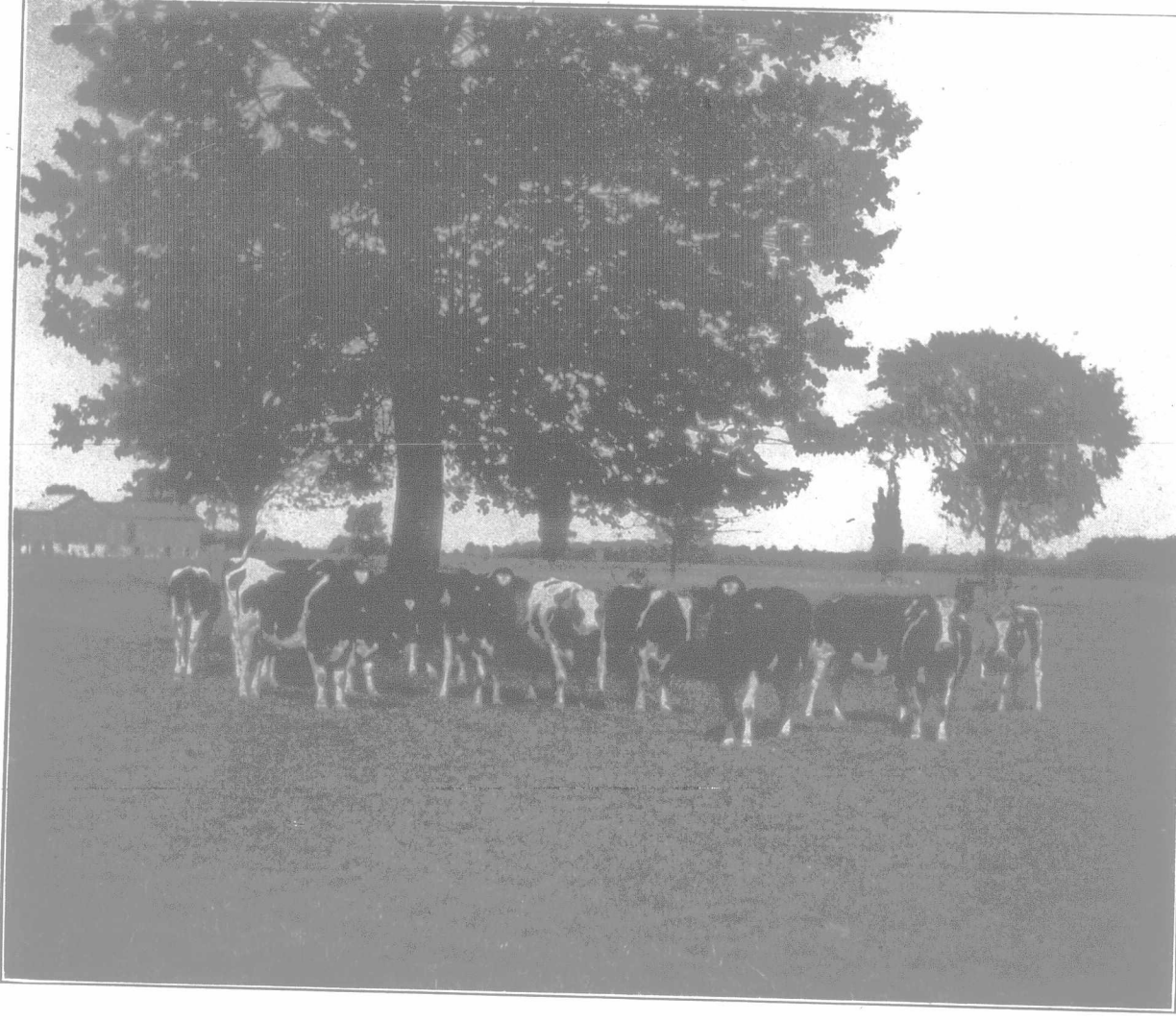
Not like the mushroom but like the oak has been the growth of Eastern Canada during the past decade—substantial and permanent. A superficial glance does not reveal great evidence of development. But the careful observer records an expansion of trunk, a spreading of branch, and a deepening of root all the product of that inward life which is gradually coming to its fruition.

The more I travel, the more do I wonder that these Eastern Provinces have ever held their own.

Everywhere I go in America I find sons of Maritime Canada who have migrated from the land of their birth, and are now occupying prominent positions in the professions, agriculture, manufacturing and almost every line of human endeavor. First it was the lure of the rapidly developing business and manufacturing cities of the New England States and later the attractions of the Western plains of Canada that drew thousands of our young people from their native land. Ofttimes they left none but their aged parents to care for the home that gave them birth. Not infrequently, they left no one behind, and nothing remains to tell of their life here but deserted farms that mar the landscape and sadden the heart. And yet there were 40,000 more people in these provinces in 1911 than in 1901, and there is a degree of prosperity incomparably superior to that which existed fifteen years ago. One naturally, therefore, asks, if even a small growth has occurred during years when so many have been lured from our shores, what will be the growth in the next period of years, when greater attractions are to be found at home than are to be offered in other parts of America.

These Maritime Provinces, Nova Scotia, New Brunswick and Prince Edward Island, are closely linked together. Nova Scotia, largely because of its coal mines and of its two great steel companies, easily leads as a manufacturing and mining province, but Prince Edward Island and New Brunswick reap a very considerable benefit by the consuming market for farm products which these industries have provided. Fishing, an important industry in all of the provinces, and lumbering, perhaps the foremost industry of New Brunswick, and an industry of no mean proportions in Nova Scotia, both contribute to the extent of the consuming market. The three provinces combined make up an "entente" of a most permanent character. Producer and consumer minister to each other and recognize their mutual dependence.

The year 1900 marks the beginning of a progressive development in the Maritime Province of much greater proportions than is generally recognized. This is especially true of mining and manufacturing, and to a lesser degree of agriculture. The facts are, however, that agriculture is always a little slow to adapt itself to a new situation, and, moreover, has been hampered in keeping up the pace from the fact that the growth of towns and cities has attracted much of



'Neath the maple's spreading shade
The best of Holstein milk is made.

a corresponding increase in price to the producer. Considering the extra cost for feed and labor required to produce milk, the producer of milk should get more than one-half the price paid by the consumer. It ought not to cost as much to sell milk in the city as it does to produce it on the farm. The returns in any business should bear some relation to capital invested and labor cost. If this be true, then milk farmers are not getting fair returns. The price paid farmers for milk needs "boosting."

Cream, formerly regarded as a luxury, is now looked upon as a food, and is recommended by medical authorities to be used instead of cod-liver oil and other more or less objectionable fatty materials to build up the human system.

The ice-cream trade continues to grow. Nearly every little town has one or more ice-cream parlors. A moving picture show and an ice-cream parlor are the earmarks of town life, and advancing civilization.

The condensed milk trade is flourishing. While there was some stagnation early in the season, latterly the demand has been good, for this class of dairy products. We read recently of a large order for condensed milk having been placed with an American firm on European account. There is no reason why Canada should not share in this trade, which has been more or less demora-

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the best blood from the rural communities. For this reason, we have to frankly admit that, although there are great agricultural possibilities in the Maritime Provinces, yet in order to supply our demands for food in these provinces we are importing, from other parts of the world, agricultural products to the value of several millions of dollars. Especially is this the case in Nova Scotia, the value of whose agricultural imports amounts to upwards of five million dollars. Gradually increased production from our eastern farms is bringing this adverse balance of trade to a more healthy basis, and this is where the opportunity of the eastern farmer lies.

A few figures strikingly show the recent industrial development in these provinces. In 1901, the value of the combined output of the factories and workshops of the Maritime Provinces was \$46,886,691.00. By 1911 these figures were increased to \$91,264,956.00—nearly 100%. The mineral output in the same period of time increased from \$9,708,417.00 to \$18,146,285.00, an almost corresponding increment. Since 1911, each of these important lines of industry have added to their output nearly 25%. Figures relative to agricultural production are not so easily accessible, but each province has seen marked development along certain definite lines which are briefly presented in the subsequent paragraphs.

POPULATION.

The urban population in these provinces increased from 1901 to 1911 by 79,025. The rural population decreased by 35,020. The difference, however, is more apparent than real, for, during this decade, a number of villages formerly classed as rural were incorporated, and their population is now regarded as urban. The only exception is Prince Edward Island, which is almost wholly an agricultural province, and where there has occurred a nearly 10% reduction in the rural population. In the other provinces it may be said that there has been little change in the numbers of the rural population, which is saying a great deal when one compares the statistics of these provinces with those of other provinces of Canada and States of the Union, and when, moreover, one considers that improved machinery and methods of farming have made it possible for a single man on the land to produce a great deal more than he formerly could, thereby reducing the necessity of as large a proportion of farmers as was formerly required. I have written somewhat fully on this point because I find that many people have the idea that the Maritime Provinces are becoming rurally decadent.

AGRICULTURAL PRODUCTION.

Figures in regard to agricultural production are difficult to obtain in a country where there is not a large export trade, and where the greater part of the products of the farm go almost directly from the producer to the consumer. However, every one, familiar with the rural population of Eastern Canada, gives testimony to a

degree of prosperity among our farmers that was undreamt of even a decade ago. In Nova Scotia, for example, the estimated value of the products of our farms ten years ago was in round numbers \$20,000,000.00. In 1913 this figure increased to \$30,000,000.00, and, from what we know of the other provinces, we feel safe in saying that there has been at least a corresponding increase in the value of the product of their farms. Part of this increase is due to larger production, and part is due to the higher prices

took the regular and short courses at our Provincial Agricultural College, and no better evidence could be given of the growth of the true agricultural sentiment. Our Agricultural Societies have grown from 119 with 974 members in 1899 to 219 with 9,248 members in 1913. Ten years ago there were only three local exhibitions in the Province. Last year there were thirteen, and in addition an equal number of Seed Fairs, Poultry Exhibitions, etc. In 1900 there were two or three Model Orchards in Nova Scotia;

last year there were 35, and so on one might proceed through the various lines of activity of the farmers and of the Department of Agriculture."

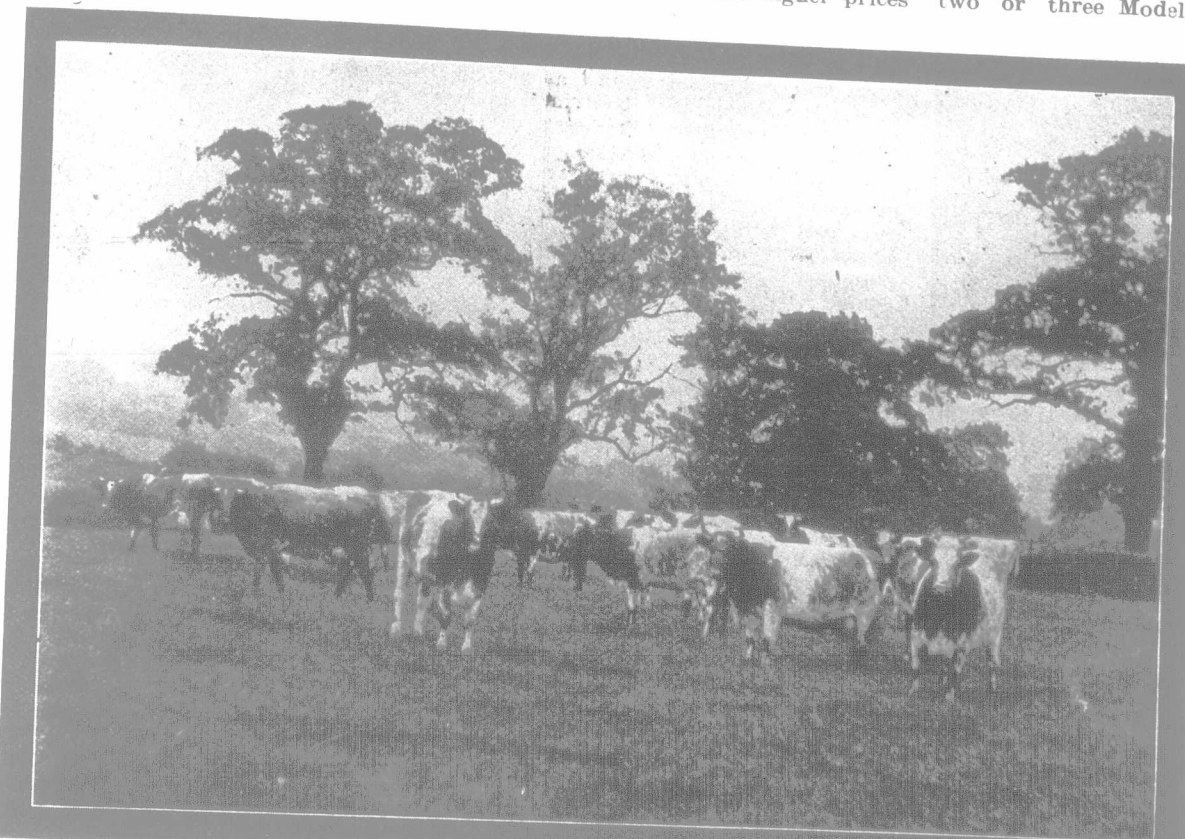
What holds true of Nova Scotia is equally true of New Brunswick and Prince Edward Island. The stimulus has been largely the same, viz., the increased markets and the directive activities of the Department of Agriculture.

SPECIAL LINES OF PROGRESS IN EACH PROVINCE.

The outstanding lines in which progress has been made in Nova Scotia during the past decade have been in Dairying, Fruit Growing and Co-operative Marketing and Buying on the part of the farmers. In New Brunswick the most marked progress has been in Potato and Apple Growing. In Prince Edward Island the production of seed grain, the improvement of live stock, and the increase of creameries, and the improved methods of marketing eggs which have led to an increase in the poultry business have been the chief points of development. The three provinces, but Nova Scotia and New Brunswick in particular, have, in the past few years, through their well organized Departments of Immigration, absorbed a very considerable number of settlers from Great Britain and other European countries. This Immigration has been of a superior character, and has resulted in substantial gains to the agricultural industry. It is impossible in the scope of this article to more than briefly refer to some of these points.

NOVA SCOTIA.

All the Maritime Provinces are well adapted to dairying, and all have made great developments in the past quarter of a century. The past semi-decade has, however, witnessed a greater development in Nova Scotia than elsewhere. Prior to this time creameries had only proved moderately successful in the Province, farmers would not supply sufficient milk and cream, but 1911 saw a 30% increase in the amount of butter manufactured in the creameries as compared with 1910, and in 1912 there was an increase of 27% over 1911. In 1913 there was an increase of 49.8% over 1912, and while the figures for 1914 are not yet available, Nova Scotia's Dairy Superintendent estimates another increase of 30%. Of course, this does not mean a corresponding increase in the dairy business of Nova Scotia. With the increase of butter manufactured in the factories has come a decrease in the home manufactured article, but the factory increase was far greater than the home dairy decrease. Corres-

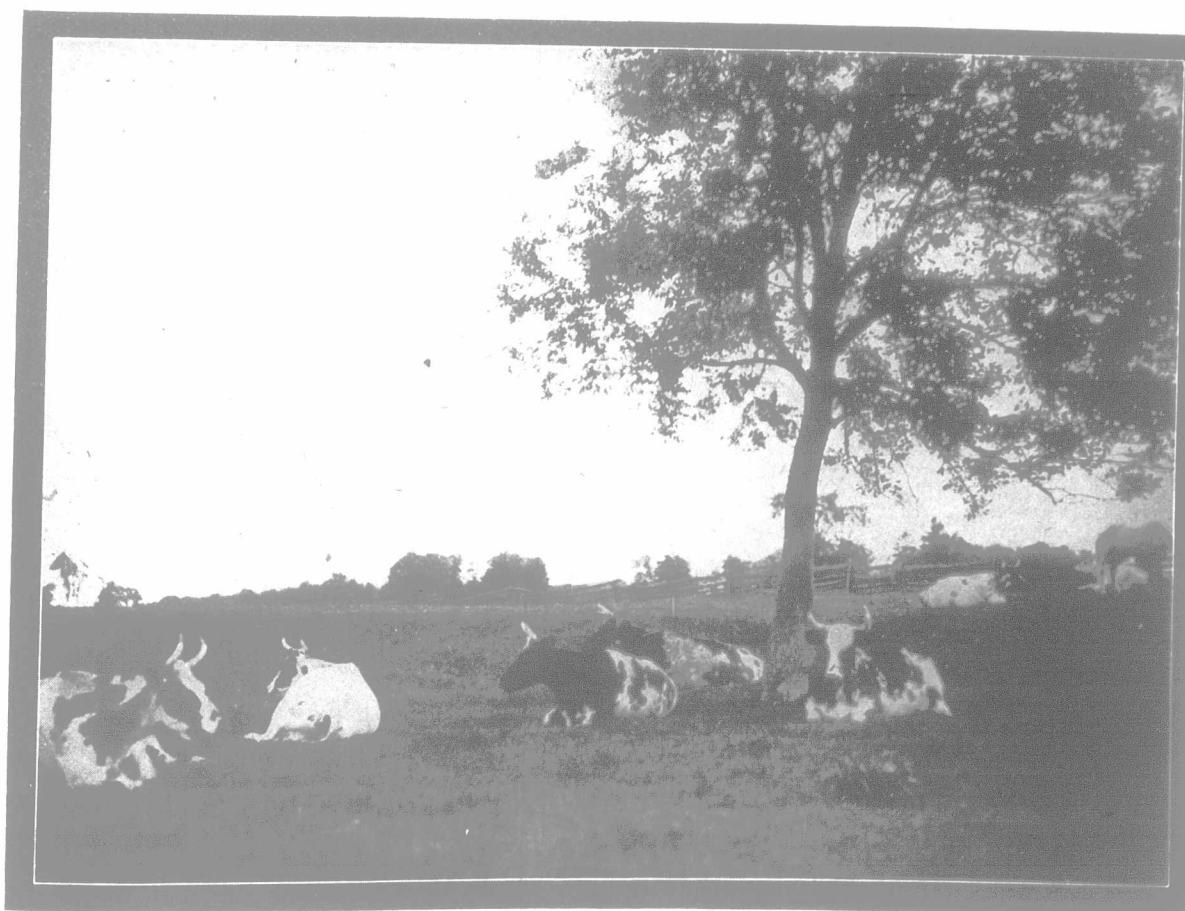


Ready to Do Their Part in "Business as Usual."

which are to-day being paid for practically all the products of the farm.

WHAT HAS CONTRIBUTED TO THIS PROGRESS.

One of Nova Scotia's public men when asked "To what do you attribute this agricultural development," replied, "To the increase of our local markets, and to the energetic guidance of our Provincial Agricultural Department." That Department is a dynamic force in our agricultural



Ayrshires Making Milk for Canadian Cheddar Cheese.

industry. The Agricultural College turns out intelligent young farmers every spring, and in every farming community, where these settle, a leaven is at work for the betterment of agricultural methods. In 1899 only thirty-seven students were studying agriculture at the Truro and Wolfville schools. Last year nearly 450 men



Character.

pondingly striking has been the improvement in dairy stock and in general dairy methods practiced throughout the whole Province.

The growth of fruit growing in Nova Scotia is well known throughout all Canada. Beginning with an export of 40,000 barrels in 1880, each semi-decade has seen about a 50% increase over the previous one. But the striking development of the past ten years has been the co-operative movement. Forty-two local co-operative societies all united under the one United Fruit Companies will market 65% of the apples of Nova Scotia, a large percentage of the potatoes and will purchase thousands of dollars worth of supplies for farmers during the present year. The story of this movement has already appeared in these pages and is familiar to all, who recognize in co-operation a means of emancipating the farmer from many of the ills that he has suffered from.

The activities of the Local Department of Agriculture, the splendid growth of the Agricultural College, and of other means taken to promote agriculture in the Province have already been referred to, and space does not permit further comment. We can only add that when next we review the agricultural development of this province we expect to include the doubling of the poultry industry as well as other lines of animal production on the farms.

NEW BRUNSWICK.

In New Brunswick the most striking development during the past ten years has been in potato growing. In 1904, the acreage under potatoes was 35,240, and the total yield 5,380,264 bushels. In 1913, the acreage was 47,702, and the total yield 9,092,393 bushels. There has also been a marked development in apple growing, which for years had made almost no progress in the Province. The Sharp Orchards and nurseries at Upper Woodstock, were the inspiration and source of many orchards planted out in years gone by, which were profitable for a time, but which gradually fell into neglect. In the past five years the splendid work of the Department of Agriculture, under A. G. Turney, who set out model orchards, inaugurated apple shows and carried on demonstrations of various kinds, is already yielding its fruit, and bids fair to make parts of New Brunswick almost equally famous as fruit growing centres with the Annapolis Valley of Nova Scotia.

Similar, though less marked, progress is reported in dairying, poultry raising and other lines of agricultural work. But the most encouraging evidence of a development, to be, in New Brunswick is a new lease of life which the Department of Agriculture has taken. Agricultural Schools are being built, Agricultural Societies are multiplying, demonstrations of all kinds are being carried on, and in general this is being reflected throughout the Province in an awakened spirit which is sure to lead to continued development along agricultural lines in this Province.

PRINCE EDWARD ISLAND.

It is generally admitted by those who have had the opportunity of observing that the premier seed fair in the Dominion of Canada is held in Prince Edward Island. It is the outcome of a great development which is bringing thousands of dollars into this Garden of the Gulf—the production of seed grain. For many years Eastern Canada looked to the West as the source of supply for seed oats and other cereals. Today our best farmers in Nova Scotia and New Brunswick unhesitatingly look to Prince Edward Island, and from what we know of conditions we believe that a few carloads of Prince Edward

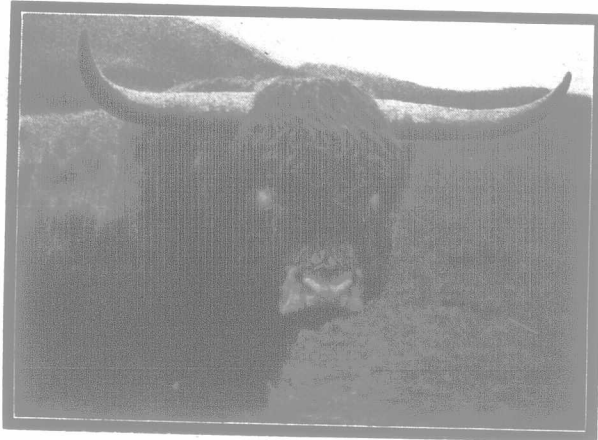
Island seed oats would prove most acceptable even on the plains of Western Canada.

Creameries have increased in number, and although this has been accompanied by some decrease in the number of cheese factories, the whole movement has resulted in a great development in dairying on the Island. In this development the farmers have not failed to consider the importance of live stock improvement, and it is the opinion of experts who have had the opportunity to observe that, by better methods of breeding and feeding, the quality of the dairy cow of Prince Edward Island has been greatly improved. Nor must I in this reference omit the sheep "of the golden hoof" as well as the other domestic animals that contribute so much to the profits of agricultural industry.

The co-operative marketing of eggs through the Egg Circle movement has proven a splendid movement in the Island, and while troubles have been met with which it may be difficult to surmount, the outcome has unquestionably been to stimulate poultry raising in Prince Edward Island.

We have in general terms referred to the activities of the Department of Agriculture, and can only add to our statement by saying that the various Short Courses, agricultural meetings, demonstrations, and other lines of Departmental activity are yielding their fruitage far in excess of the money invested in them.

A full discussion of modern development on the Island would not be complete without a reference to its world-famed fox and other fur-producing industry. But that is a story by itself. Whatever else may be said of it, the fact remains



Confidence.

that it has loosened up money in a country whose progress was being hampered by a habit of saving carried to the extreme.

But our space is more than exhausted, and we must conclude. Never did things agricultural look better in the East, and never were our people so well contented with their lot. Perhaps no part of Canada is in a better condition to stand the stress of war and when peace comes, and may it be soon, we look for a growth far greater than that which we have recorded, but such as one might expect in these Provinces that are endowed not only with resources of soil, but of lumber and fish and mines, and best of all, of people whose possibilities of achievement are unlimited.

"Writing will remain when words but spoken may be soon forgot."

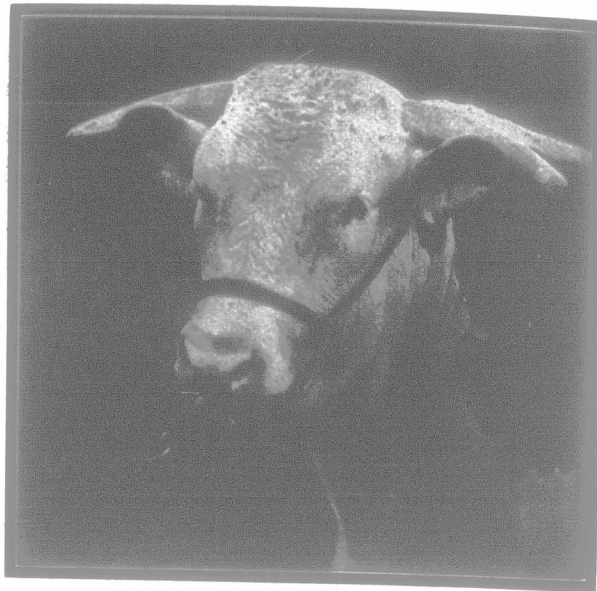


Challenge.

In giving to help the needy in far-away lands we must not overlook those in want at home. Is there not someone in your neighborhood who would be glad of a little kind help this season? If you look you will find them.

"Peace hath her victories no less renowned than war."—Milton.

"There never was a good war or a bad peace."—B. Franklin.



Contentment.

Canada's Sugar Crop.

War in Europe is not a good thing for the sugar market. There is sugar and to spare, yet a vast quantity is tied up in the war zone with hazy chances of it moving into the field of commerce. A restricted mercantile marine at the outset of the war led people to lay in a supply of sweetening at a price much above the ordinary, but when an additional 600,000 tons of beet sugar came on the market and brokers saw a probability of Germany putting her crop of two and one-half million tons in motion, prices in New York fell with a crash. This weakening of prices does not signify that growers or manufacturers are to undergo enormous losses. It means that a few are not to gain so much.

In the British Empire there are two beet-sugar factories operating this year, one at Wallaceburg and the other at Berlin, in Ontario. The supply of Canadian beet sugar is not a large factor on the world's market, neither is it of supreme importance at home, for only between one-twentieth and one-thirtieth of the sugar consumed in the Dominion is beet sugar. Each year we consume approximately 600 million pounds of sugar, but only from 25 to 30 million pounds of this material will this year come from Canadian soil and air through the efforts of our farmers and manufacturers. The word "air" is used advisedly, for if the tops remain on the land and the beet pulp be returned to the farm there is practically no loss of fertilizing ingredients. Sugar is a combination of ingredients which plants receive chiefly from the atmosphere, and with their wonderful mechanism transmute into sugar. To produce this seemingly enormous quantity of 30 million pounds in Ontario there were 13,000 acres under beets this year, yielding as a total approximately 115,000 tons of beets.

The great majority of our sugar, however, is grown in the Sunny South. Java, Cuba and the West Indies are all known for their cane, and the latter two send a large quantity to feed the wheels of our sugar refineries located along the water-front. A seventy-five-day run for a factory on sugar beets is considered favorable, and the remainder of the year is given over to the manufacture of sugar from imported products. Thus there are certain seasons of the year when all Canadian

plants are busy refining cane sugar, but during fall and early winter the two mills previously mentioned are kept humming with a "made in Canada" crop. The farmer's job is to produce stuff for other people to eat, and Canadian farmers are not lax in their duty. Products of Canada's soil have a taste about them that is pleasing to consumers the world over, yet the most fastidious or the most patriotic cannot distinguish between sugar that was grown in Germany or France as sugar beets or in Cuba or Java as sugar cane from our own Canadian-produced article. After the intricate and elaborate laboratorial processing sugar is sugar. In this regard there are no grounds for a Grown-in-Canada Campaign except for patriotic

reasons, and if the culture of sugar beets were increased it is doubtful if the factories we now have could handle the crop. 45 to 60 days in Germany is considered a favorable season over which to spread the manufacture of beets into refined sugar, whereas in Ontario the season extends over 75 days or more at the present time. C. H. Houson, Manager of the Dominion Sugar Company, with offices at Wallaceburg, from whom

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these facts were secured, claims that the beet industry is a boon to the farmers who are in a position to produce sugar beets. This being so there must be room and a need for more factories. Farmers, of course, view the proposition from their own situation, and many there are who taboo the practice of growing sugar beets, but after all has been said the immense quantities of beets along the railroads and the mountainous piles now at the factories plainly bespeak the satisfaction that some growers derive from their "beet checks." A list of 200 growers who realized over \$60 per acre from this crop in 1913 recently came to our attention, and it is gratifying to see the number who range around \$70 and \$80 per acre. Where the soil is suitable the whole matter hinges upon the labor question, and that every farmer must decide for himself. Where it is possible to secure help who have grown up in sight of the European, sugar-beet fields, or have beet-field proclivities and flexible backs, there is no question but what the crop is remunerative both in a direct and indirect manner. It is one of the best means of clearing land of weeds and preparing it for grain crops that is known to farmers, but still there is the toll that Canadian farmers willingly bequeath to laborers from foreign shores.

In view of the fact that the production of sugar beets is suitable to certain parts of this country, and that next to sound agriculture, home industries are the making of a nation, there is an apparent need of more factories to eat up the crop that could be increased many fold. D. A. Gordon, M. P., for many years President and General Manager of the Wallaceburg Company, admits there is good money in the sugar business from the manufacturer's end, but it requires a large amount of finances to operate the business. The fact that approximately two million dollars are tied up in the Wallaceburg factory is proof of this statement.

The acreage devoted to beets may be increased in Ontario, as the beet-root factories intend to lengthen their season of operation and anticipate a run of 90 days, night and day. Furthermore, if beet growing in Ontario receives some encouragement and appreciation, the large central plants should be in a position to establish smaller or subsidiary factories near the beet centers such as they have in Germany. These would be termed Melting Stations, and they would supply the large refineries with raw sugar, enabling them to operate throughout the entire year on beet sugar alone. This system would meet the need of more factories at a modest expense.

As to the effect of the war upon the sugar market or the production of sugar beets, Mr. Gordon asserts that it will not permanently influence the market or the demand for beets in this country. At the present time our supply of sugar comes from what the factories manufacture from beets and what they refine from the raw cane sugar. A larger production at home, provided there were factories to handle it would be commendable, we believe, from an agricultural viewpoint, but it would simply mean a decrease in the amount of work done along the line of refineries that depend upon the foreign product. That is an industrial problem, but from the farm end a larger industry in beet sugar production would be advantageous to the country. European countries are the largest producers of beet sugar. A preliminary estimate expressed as raw sugar and issued in the Census and Statistic Monthly places the production in Germany for 1914 at 59,270,604 short cwt. Russia has 33,397,123, Austria 25,700,231, France 16,600,817, United States 16,552,132, and Hungary 11,280,108 short cwt.

Many of these countries are now at war, but there is just so much sugar being produced, and there are just so many people to consume it. If one country places an embargo on another country's sugar, it simply means a diversion of trade. If sugar does not come from one port it must come from another. That port upon which the

embargo is placed simply consigns its products to another consuming people who have been robbed of their supply through the disruption of trade. In the last five years no appreciable amount of beet sugar has been imported into Canada, with the exception of two cargoes brought into Montreal two years ago. Thus a demoralization of the beet sugar industry of Europe, if such a thing occurred, would not alter conditions in Canada only, in so far, as it might throw into confusion the entire sugar market; but so far as beet growers of Ontario are concerned their industry must remain the same. A misapprehension is abroad that the war will benefit the growers of beets in Canada, because of a probable cutting off of the supply of beet sugar from Europe. This is altogether without foundation, for our importations of beet sugar are unimportant, and after the war is over the supply of sugar wherever produced will find an outlet through the world-wide system of commerce just as surely as water will find its own level.

Beet growers of Ontario must force the business themselves and cause its development, for it undoubtedly brings thousands of dollars into the pockets of Canadian farmers, but after the war is over, we believe the industry in Ontario will rest on its merits and grow just as the farmers encourage it, and the factories do what is right.

The Pig From Pen to Plate.

In the farmer's pen a pig is only a pig, but when he leaves this pen for the city and becomes

and after supper, the former being the sleepest hour for growing boys and the latter the last straw which breaks the camel's back. The youngster, with good care, soon grows bigger, noisier and uglier and the prime consideration is to get rid of him as soon as possible and his days in the good feeder's hands are limited to 185, when he should weigh in the neighborhood of 200 lbs and will turn in the greatest amount of profit to his owner and to his packer alike. Accordingly at this age he is sold to a "drover" who happens along. On Monday or Thursday, or some other day set by the drover, he, with his mates, gets no breakfast but a little dry chop intended to constipate him and prevent loss of weight through possible increased excrement, due to the unusual excitement of shipping. There is a hustle about the place, the wagon with the stock rack on is backed up to the pen door, planks are used as a runway and with sticks and whips the pigs are hustled into the rig, the planks dropped, the end-board adjusted, and the team started for the station. Whether the weather is 100 degrees in the shade or 20 degrees below zero the same open rack is used, the only precaution ever taken being to take along a pail with which to dump cold water on the hogs if they show signs of being overcome with the heat. Pigs can withstand considerable. They have to. We would caution feeders to handle their pigs more carefully, as every crippled hog means a loss which must revert to themselves.

At the station, wagon, pigs and all, is weighed or the pigs "dumped" out and driven on the scales. This dumping is often a cruel process. The seller or his helper, after the end-board is removed, starts at the front end of the rack, and with shouts and kicks proceeds to crowd the pigs to the back of the wagon where one or two men grab them by the ears and "yank" them out, letting them drop the 2 1/2 or 3 feet to the ground. This careless unloading, especially if the ground is frozen or slippery often causes injury, and it is not uncommon to find at such times four or five cripples in a car due to such carelessness. If the pig is to be shipped in a single-deck load he is hustled with 80 or 85 others into the car and is soon on his way, or if it be a double-deck load the number may be 150 or thereabouts. At the stockyards the lot may be sold as they are, or may be unloaded, fed and watered.

Here the pig is purchased by representatives of a big packing plant, and here begins the most interesting stage of his journey to the plate. The car in which he is loaded, with eighteen or twenty other cars, is run into the packing-house siding and unloading commenced on an elevated platform from which cleated runways lead to the yards. Straight car loads are thus unloaded and sorting commenced, for all pigs sold are not selects, far from it, and a good packing-house is very particular as to its "select" hog company. A narrow, L-shaped passage with doors conveniently placed at the angle is the sorting machine, and at this angle and operating the swinging doors stands a man who can guess the weight of a hog within three pounds almost as regularly as the "guess-your-weight" individual who operates on human beings at the fall exhibitions. The selects go out one way, the rejects the other, and are in separate pens. Then comes a second selection, made the same way and finally from one lot three lots are made—culls weighing below 120 lbs. each, seconds weighing up to 135 lbs. each, and selects weighing anywhere from 150 to 190 lbs. and up to 220 lbs., provided they are not too thin or too fat, and are of the right bacon type. It would surprise readers to see the number of culls and the percentage of seconds, and it would prove a great object lesson to feeders if they could see the uniformity in type and conformation of the selects as compared with the seconds and culls. Out of a run of 3,845 hogs we recently saw 126 culls and 335 seconds, ninety per cent. of which were pigs of fair type but lean and unfinished, and the marketing of such tends to keep prices down and is a direct loss to the feeder



And the Maples Grow on Either Side.

well-dressed he is pork. It is a far cry from pig to pork; it is a long way from pen to plate. From the thrifty, big, lazy hog which greets his feeder with a gratifying grunt to the tasty, appetizing and satisfying slice of breakfast bacon ready to be fried in its own grease, is a transformation scene or rather number of scenes of which the feeder of pigs knows little and the consumer of bacon less. The public looks at the uncouth pig and then at the dainty dish of bacon; knows that it is not being illusioned; knows that the great transformation is accomplished by clean and sanitary methods, where nothing of deceit or trickery is done, and takes the pig as a necessary nuisance on the farm and pork as an indispensable dish on the well-set table. The pig is never a pet, but bacon is a general favorite. Let us see what happens to the pig on his way to his destination—cured pork; let us follow him closely through his wonderful transfiguration, follow him from pen to wagon, from wagon to shipping yard, from shipping yard to freight car, from freight car to stock yard, from stock yard to packing-house scales, and then up the long, cleated chute to the ever-revolving windlass which starts him on his final plunge into the mysteries of a large slaughter house and packing plant, and through this plant until he is ready for the warmed breakfast or dinner plate.

Like the young of all other domesticated animals the pig, up to six weeks or two months of age, if fat and plump, is rather an attractive youngster and is admired by everyone, but the farm boy who has him to feed before breakfast

and an annoyance to the packer. Of the 126 culls, the average was 108 lbs., of the seconds 128 lbs. each. It injures the pig feeder's business to sell unfinished pigs, and deprives him of the easiest-made profits in pig feeding, viz., the finishing of a grown hog.

After being weighed on the packing-house platform scales the pig, with his mates, is driven up the long, cleated chute into a small pen in which revolves a large windlass-like apparatus about eight feet in diameter around the circumference of which, at regular intervals of a few feet, are placed short chains and large grab hooks. Before the pig realizes what is happening one of the chains has him by a hind leg and he is going up hind end foremost. Around the revolving circle he goes and slips off onto a rod resembling the track for a feed or litter carrier. He is now hanging head down, and the chain on his leg with pulley on the track is ready to run him along. Right here he meets his death. One thrust in the throat by a long, sharp knife finishes him and on he goes down the track with others ahead and more behind, following in an almost unbroken and solid line. Suddenly there is a little splash and he is with those which have gone before in a large vat of scalding water, and being turned by men with instruments for the purpose. The scalding completed, a power-driven lifter picks him up bodily, turns him, and head foremost he slips through the first scudder, an indescribable arrangement of small hoe-like irons leading to a small circular centre through which the pig passes and the hoers scrape off his hair. From number one he slips into number two, and by this time most of his hair is off. Men with knives take a scrape here and a scrape there—(here a scrape and there a scrape, here and there a scrape) and the pig once more is swung to the over-head track, and moves along a line of men each with his particular work to do. The pig never really stops from the time he ascends the fatal, cleated runway until he lands in the first cooling room as clean as a new pin. As he passes slowly but steadily along the line of expert workers, a line in which division of labor is most marked, he is opened neatly at practically one stroke of the knife, this being one man's particular work, his entrails are dumped and cleaned, his back bone is "raised" by a man who, with two sweeps of the knife the entire length of the hog, severs every portion of meat from the spinal vertebrae, and when the cleaver finishes the job the pig's back stiffener is so nicely removed and so thin that it is almost transparent. As he passes along two or three men put the finishing touches to "a clean shave" with knives, and he disappears through a slide door. If he is destined for export as "Wiltshire sides" he receives a little extra attention, being put through a large singer immediately after being scalded, and which removes all the hair and saves extra scraping. The pig destined for home trade, however, is not singed until, to this second room, moderately cool, where, as he enters the door, he is subjected to two strong gas flames in the hands of men who go over the carcass and remove any straggling hair which may have escaped. Factors are around

hand-lifting is done. The pig simply slips along from place to place, steadily passing man after man with knife, with saw, with cleaver, with flame, and where any lifting is necessary machinery for the purpose does it.

From the cooling room the pigs are delivered by the same track process into another room where they are lowered to a sort of endless-apron or moving table, along which they are cut up at the rate of about 150 per hour. As the pig passes on the table each man has his particular part to do. On, on they go, the trimmed side

gaged in the business. What happens to the pork here is a mystery, but after it has received a due amount of treatment it is hung in the smoking room where it gets from 24 to 48 hours of "smoking," according to the weather conditions prevailing. The finer the weather the shorter the "smoking" necessary. After being smoked it is cooled again.

And then what, it is sent out in boxes as Wiltshire sides, in baskets per cut, in special orders wrapped in paper, in cooked ham or rolled shoulder, in pork pies, in every possible form for all this is accomplished in the one plant. We neglected to mention that on the way around each and every pig is inspected by a government inspector, and if found unfit for human consumption goes to the fertilizer works. We also did not state that Wiltshire sides from the "select" hogs are again graded before being shipped, and that almost 25 per cent. of these are too thick, or too short, or too heavy to go in the "select" class of finished product. The Wiltshire sides are packed in ordinary, strong packing boxes, one on top of the other pressed down by machinery, and are then ready for shipment.

All these parts unfit for food are made into fertilizer, the lard is rendered in large caldrons daily, and pours out of pipes into pails, barrels, or is made up in prints; the hair is saved, in fact everything is utilized but the squeal, and with the German toy trade cut off because of the war we should not be surprised to hear of some enterprising packing firm manufacturing this into tin whistles for children.

From the plant the cured meat goes to the wholesaler or the retailer, and then to the table. It is an interesting process.

Care and cleanliness are outstanding features of a big packing plant, and a piece of "select" bacon or other meat from it is "select" in every sense of the term. Upon entering the slaughter house one might say with Shakespeare,

"And it smelt so? Puh!"

But it is only the steam and the odor of blood, and before one has followed the pig half way through his tortuous course, and seen the extreme care as to cleanliness and precautions against disease or other undesirable conditions, he is forced to say with Cowper,

"But for one piece they thought it hard From the whole hog to be debarred."

Indeed the whole hog is turned out good and wholesome, and from no part would anyone wish to be debarred after seeing him dressed for the plate. We must leave him here. If the farmer produces the right kind of pig and finishes him for the market the packer can make good pork.

Poultry Breeding Stations in Europe and Ontario.

By Prof. W.R. Graham.

It was the writer's privilege to visit Ireland and Denmark during the summer of 1912. The object of the visit was to study first-hand the methods adopted by these countries in assisting the Poultry Industry. One of the subjects of investigation was Poultry Breeding Stations.

The Danish nation is noted for its high-class agricultural products, and the uniform quality of the same. The constant uniformity of their product impressed the writer more than the point of superiority. That is to say the retailers to an individual were highly pleased with the constant grade of the produce from Denmark.



The Last Feed.

being delivered at the end of the table, the heads going here, the feet there, other pieces somewhere else, but all into their particular receptacle. The Wiltshire sides are graded as to weight, and prepared for both the British and Canadian trade. They weigh anywhere from 40 up to 90 pounds. Then they are branded with the name of the firm, this being done by men with large iron brands heated by gas flame. Brands are placed very close together to prevent the trade cutting out any portions, however small, which might not have the brand thereon.

The heads and feet receive special treatment; they are "laundered" in a large revolving washer, and the feet are carefully "manicured." All is done by machinery. The heads are split, the nasal



"Come On In the Water is Fine."

which may have escaped. Factors are around the bend, two more men with knives are put on the finishing touches, and the pig is for the first time in the wonderful packing house of this large, dark room they hang for a few hours until the following morning, after which they are rolled along on the over-head track to the cooling room where they remain a few hours, as the case may be, at a temperature around 35 degrees F. On the entire journey

and all parts unsuitable for food are cleaned and the toe nails removed, all by machinery. By repeating this a few seconds to be prepared for the following day. The head following the sides to the end of their chute into a large room where other men receive them, they are given the special process of curing and are numbered by each firm en-

The un... ing, feed... question... is a well-... eggs, oth... some rela... further, m... to size an... In ord... eggs is i... eggs in a... producer... ly interes... numbers... depends i... upon this... Danish... long ag... Breeding... These St... locate... parts o... They also... systematic... the work... produced... eggs sold... etc. It... writer's... examine r... records... tion of so... Breeding... made eas... the fac... Danish ju... competitio... work at... the vis... writer si... the party... take the... days to in... Stations... that th... small num... of the eg... as well as... were taken... am stock... Minorcas... Orpington... considered... idea was o... The St... birds from... Stations... this metho... and size of... tent. These B... tions supp... hatching t... boring fa... small price... at a rate o... dozen tabl... one doz... eggs. The... ceived a s... from the... depending... care and s... management... very excep... is more th... allowed to... Ireland... the Danis... only in... Association... in Breedin... There are... used in... some bre... claimed to... adaptable... sections o... try, and m... dressed bir... valued. In... large nu... Poultry... mostly in... over these... Inspectors... not unlike... Schools... have cla... evenings... the day vis... are' poultr... are also r... tion of th... Stations... turkeys... allowed to... instances, y... and is part... but it is n... spectors... ing Station

The uniformity of produce depends upon breeding, feeding, and marketing. In this article the question of breeding only will be considered. It is a well-known fact that some breeds lay white eggs, others tinted or brown eggs. There is also some relation between breed and size of eggs, and further, most strains of the same breed vary as to size and number of eggs produced.

In order to command the market, the size of eggs is important, especially in England where eggs in a wholesale way are sold by weight. The producer is particularly interested in the numbers, as the profit depends in a measure upon this point. The Danish Government long ago established Breeding Stations. These Stations are located in various parts of the State. They also carry on a systematic record of the work as to eggs produced, feed, labor, eggs sold for hatching, etc. It was the writer's privilege to examine many of the records. The inspection of some of these Breeding Stations was made easy, owing to the fact that the Danish judges of the competitions were at work at the time of the visit, and the writer simply joined the party. It would take the judges forty days to inspect all the Stations, which means that there are no small number. The size of the eggs produced as well as the number were taken into account.

Most of the Stations are stocked with such breeds as Leghorns and Minorcas. A few have Plymouth Rocks or Orpingtons, but eggs, and large white eggs, were considered of more importance than meat. This idea was open to debate.

The Stations are carefully inspected, and male birds from the best producers are used in various Stations. It was claimed by the Inspectors that this method had increased the average production and size of eggs over the country to a marked extent.

These Breeding Stations supply eggs for hatching to the neighboring farmers at a small price, generally at a rate of about two dozen table eggs for one dozen hatching eggs. The Station received a small grant from the Government, depending upon their care and skill of the management. In only very exceptional cases is more than one breed allowed to be kept.

Ireland has followed the Danish plan not only in Co-operative Associations, but also in Breeding Stations. There are more breeds used in Ireland, as some breeds are claimed to be more adaptable to certain sections of the country, and moreover, the dressed bird is highly valued. Ireland has a large number of Poultry teachers, mostly ladies, and over these are a few Inspectors, a scheme not unlike our Public Schools. The teachers have classes in the evenings, and during the day visit the farmers' poultry-yards and are also responsible for the thorough inspection of the Breeding Stations. The Breeding Stations may have chickens, geese, ducks, or turkeys. Here, as in Denmark, the Stations are allowed to keep but one breed. In a very few instances, where the breeder has good wire fences and is particularly careful, two breeds are kept, but it is not looked upon with favor by the Inspectors. The writer visited a number of Breeding Stations in Ireland.

The farmers secure eggs for hatching from these Stations at a rate of about fifty cents per dozen, or two dozen table eggs for one dozen hatching eggs. A regular book is kept by the Station Manager as to eggs produced and their distribution. The Department of Agriculture in many cases supplied small, portable houses as object lessons as to proper methods of housing, and also to demonstrate the idea of getting the birds on new or untainted ground. The Station Managers receive, if the Station is properly

which are assisted a little by the Government. We have also had Institute speakers, yet we have not had the improvement in stock that we should get. The progressive people have done nobly, but many have not. To a certain extent this has been due to buying on a flat rate. If buyers would take goods only on a quality payment basis, good poultry and eggs would be more plentiful.

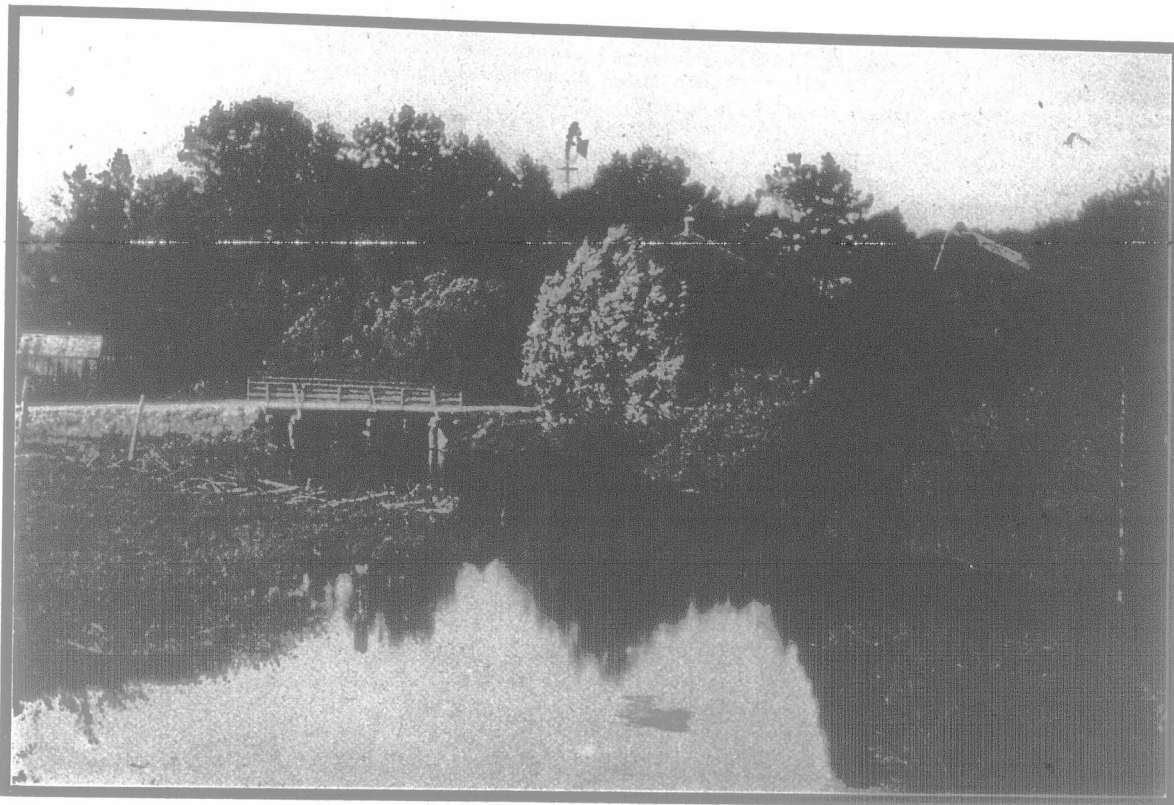
The Department of Agriculture has, through its District Representatives, and these in turn through the school teachers and school children, been undertaking a plan for Breeding Stations and general stock improvement. A number of the District Representatives now have Breeding Stations established. The use of the school children for the distribution of eggs and the plan of the rural School Fair assists and creates an interest in well-bred poultry. It is hoped that sometime in the future there will be in every school section in Ontario a Breeding Station where the farmers of the locality may secure male birds or eggs for hatching at a cost not to exceed twice the market value of the bird or eggs for table poultry.

A plan for the supply of males of known ancestry is established in the form of a Central Breeding Station. This should take care of some of the difficulties encountered in other countries.

The general plan will get the school children interested in good live stock; will help towards the production of a uniform quality in eggs and meat as well as quantity. It will not seriously interfere with private enterprise in breeding work, as the results so far have stimulated rather than retarded interest along this line.

The Future of the Canadian Apple.

The sight of thousands of bushels of luscious Canadian apples rotting on the trees or on the ground is a touching, silent appeal to our consuming populace to eat more home-grown apples — will they do it? They will if the position of the Canadian fruitman is made known, and he in turn makes known the qualities and good features of what he has produced and offers for sale. Apple growing has arrived at a critical stage in its development here in Canada, and we may as well admit it. The pander about co-operation being all that is necessary to clear away the mist amounts to as much as the smoke of a gun after it has been discharged. What is first required is a vision of the actual conditions thrown upon the brains of our fruitmen as a lantern throws a scene upon a curtain. It should linger there until they appreciate the harmful influence of unripe fruit, of berry boxes only partially filled, or the lack of a desire on the part of members of associations to pack an "A 1" article. This is not idle talk, and for substantiation readers are directed to wholesalers and retailers in any large center of distribution. Packers' characters are revealed there very unmistakably, and as to grading, an association in one of the best fruit growing districts of Western Ontario is losing members because the standard set by the society is considered too high. Such a feeling seems absurd in a



On the Lynn—One of Ontario's Peaceful and Shady Nooks.



On the Rideau Canal Driveway, near Ottawa, Ont.

and something different would have to be done. The application of Breeding Stations to Ontario is an interesting topic. There are found on our Ontario farms all kinds or classes of poultry, from the meanest scrub to the excellent bird. The large dealers in poultry and eggs have made some loud complaints about the great numbers of inferior stock. The remedy is not so easy. We have had here in Ontario numerous breeders of pure-bred poultry, and many poultry exhibitions

season like 1914, when so much fruit is going to waste and when local buyers are so scarce. The very existence of the apple-growing industry as a profitable enterprise in Canada depends almost entirely upon the quality of the pack and package that fruit growers offer for sale. This has been the struggle in the past, and after a prolonged campaign of teaching, pleading and exhorting that feeling is still there. "Knowledge comes but wisdom lingers" in this century even as it did in the time of Tennyson, but fortunately the more experienced growers are in the line for a good article; they have learned that "honesty is the best policy."

The former lesson qualifies one for only the first degree of the order. Second is co-operation. This great principle and doctrine has been much abused here in Canada, but in spite of all the disadvantages met with it has saved the position for the fruit-grower. The great trouble has been that the members have been chosen indiscriminately and indiscreetly. When they came they were accepted with the idea that the movement was powerful and efficient enough to mold the whole mass into a workable machine but that was a mistake, for one or two undesirables have often caused a flaw in the mechanism that gave way when the strain came. Members should be examined morally as an applicant for life insurance is examined physically. Growers who do not produce good fruit and pack it, or are willing to have it packed, properly are not suitable members. The orchard and a man's product should be considered first of all, because no transformation takes place in one's character or ability when he pays a fee to become the member of a fruit growers' association. Fruit growers' associations have saved the day; they have weathered the gale when markets were disrupted; they have fought transportation companies and have secured a recognition of their rights to better service; they have sold the growers' fruit over the head of organized brokers who exact a heavy toll and who are not the legitimate middlemen in the system of distribution; they have met the foreign product on our own markets and are securing their lawful place; they have helped to standardize the pack, to invite the favor of the consumer, and in fact they have done more to improve conditions than any other agency, and we cannot do without them, but co-operative associations are but the second degree. Third is the business aspect of the proposition.

Upon this third degree hinges, we believe, the future of the Canadian apple. When we say future, we do not mean the East beating out the West, or Ontario surpassing Nova Scotia on the markets. So much fruit will be consumed at home and so much will go abroad, the idea is to dispose of the entire Canadian product at a profitable price to the grower in both the East and West.

Some, who have given this matter thought, consider that co-operation means the elimination of the middleman, so called. No amount of scathing, senseless epithets will dislodge the dealer from the position he has gained through the centuries while mercantile systems have been developing. Distribution is one of the difficult things to deal with in marketing. Urban dwellers demand a large amount of service and they must pay the price for it, the living of a large number of dealers and distributors. By reducing the number of dealers, co-operative associations have made a saving in their direction; a saving to themselves, but they engage a number of men to handle the goods who are dealers in their employ, and whose living they provide as they do that of anyone engaged in the distribution of fruit. There are too many middlemen, that's all. So far as a reorganization of urban distribution is concerned, it is a matter for the consumer to deal with through municipal government.

In connection with the business aspect of the thought, let us analyze the situation and draw our own deductions. At the present time and under the existing circumstances one cannot recommend to a fruit grower to plant new apple trees. That means there are enough set already. This judgment is not influenced by the European turmoil and disruption which has demoralized the machinery of fruit distribution this year; it is the lesson taught by the sight of thousands upon

on thousands of acres of producing apple trees, and as many more yet to come into bearing. The same advice is applicable in the United States, whose growers meet us on Canadian as well as European markets. Canada has produced over eight million barrels of apples during a single season, but those are exceptional crops, and fortunately we are not obliged to find a market for all of them in one year. It should be understood, however, that Canada has some 25,000,000 fruit trees of all kinds, so in normal seasons we shall not suffer any dearth of fruit.

In 1911 the Province of Nova Scotia produced over 1,700,000 barrels of apples. The crop of 1914 will probably total 1,000,000 barrels, and in the next favorable year she is capable of showing 2,000,000 barrels. Only about 125,000 barrels of this enormous quantity will be consumed in the Maritime Provinces, while the remainder must go through the channels of trade in search of the consumer. Prince Edward Island will not influence markets to any great extent, for her soil is so admirably adapted to mixed agriculture that farmers of "The Island" will not take the chance with fruit to any great extent. On the Banks of the St. John River in New Brunswick are many plantations that will, in a few years, yield quantities of fruit that must be sold outside the province. Quebec has many fruit growers who are paying attention to their

that year the percentage of marketed apples was high, yet there will be seasons when several times this figure must be disposed of. Where will they go?

The Canadian apple is looked for in South Africa, but not after the middle of December, for then the home-grown product comes on the market. Apples consigned to that port by reliable growers or associations have a good reputation there, and one that should be guarded. South America is being developed this year, but what the prospects are it is difficult to say at this time. British Columbia has some chance in Australia, and this year they will probably send them 60,000 boxes. These are the chief outlets for our apples with the exception of the European peoples where the demand is almost unlimited, but unfortunately for us the possible supply is large, and when fruit begins to flow through the Panama Canal with its consequent reduction in ocean rates the Western orchards of this continent will send no small amount direct to the Eastern Hemisphere. Liverpool, London, Glasgow and Hamburg eat up enormous shipments, for they are large distributing centres and Canadian growers, we believe, may still look forward to them with considerable optimism.

The first and all important move for our fruit growers to encourage and for every one to get behind is to place more apples in the cellars of Canadian consumers. If every two individuals ate one barrel that would dispose of nearly 4,000,000 barrels, but, of course, many are producers and could not be looked upon as consumers of apples. Cut off 1,000,000 barrels, if you will, for these apple growers and there are 3,000,000 barrels gone into use at home. If fruit growers can accomplish this the remainder of most crops can be taken care of by the export trade. How can this be accomplished? The three Prairie Provinces provide homes for nearly one and one-half million of people. Provided they could be supplied with apples at from \$4.00 to \$4.50 per barrel on the average, they should consume in the vicinity of 700,000 barrels. Seeing that upwards of 200,000 barrels come in annually from the United States, Canadians might make an effort to replace them with a Grow-in-Canada article. During the season of 1912-13 British Columbia gave the Prairie Provinces 75,000 barrels, Ontario sent 238,000, and the United States 164,000 barrels. There is no reason why that 164,000 barrels should not have been grown in Canada. The Prairie Provinces provide homes for only a small part of Canada's people, and the remainder should dispose of what is left of the 3,000,000 barrels allotted to them.

The Federal Government this year initiated a propaganda that should be developed with zest. The expenditure of \$12,000 in advertising has brought over 40,000 enquiries to the office of the Fruit Commissioner in eight weeks. This exceeds their greatest expectations, and demonstrates the enormous possibilities of increasing consumption through systematic advertising. Wholesalers and retailers all over Canada declare that consumption has been

enlarged greatly through these efforts, and growers should take the matter up and continue it with vigor as the fruitmen in the south have done in their successful effort to place bananas and citrus fruits in every nook and corner of this country. Growers and associations might devote one cent per barrel to this campaign, and with the assistance of the Government the amount might easily be raised to \$50,000. If this amount were expended each year, as it should be, there would be less talk of overproduction. One association alone in the Western States spent \$60,000 in one year in this way. Surely Canada as a unit can afford fifty thousand for such a worthy purpose.

Any grower knows full well that Northern Spys cannot be laid down in remote Western towns for \$4.00 or \$4.50 per barrel and return a profit to the producer and dealer. There are numerous good varieties beside Spys, but the majority of consumers do not appreciate the fact, and ask incessantly for that particular apple. When 33-1-3 per cent. of each shipment must be Spys, the price of all is sure to be high. A feature of any advertising campaign should be to banish that conception of the apple, and teach users of fruit that for cooking, and at some seasons for dessert, other standard varieties are quite



Shoeing the Bay Mare.

After the painting by Sir Edwin Landseer.

orchards, and who expect a market for many thousands of barrels. Ontario, last year, exported about 2,000,000 barrels of apples of which approximately 175,000 barrels went into the Prairie Provinces, while the remainder went abroad. From 1901 to 1911 the acreage of bearing orchards in Ontario decreased a little over 25 per cent., and non-bearing trees increased about 6.6 per cent. This was due to canker, winter injury, San Jose scale, and that great destroyer of orchards, neglect. All are still busy and doing, what many consider, a good work, so we need not look for any great increase in production in the next five years or decade in Ontario. The Prairie Provinces are consumers in every sense of the word, but there is yet British Columbia to be considered. True it is, they produced only about 1,000 car loads of fruit this season, but as yet two-thirds of their trees are under five years of age, and the other third practically only beginning to bear. There must be a great increase in that province during the next ten or fifteen years, an increase that will influence Canadian markets to a very large extent. The Department of the Dominion Fruit Commissioner estimated Canada's crop of 1913 at 3,197,000 barrels, of which 2,906,100 barrels were actually packed and shipped. Owing to the light crop

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as good as Spys. We have heard urban people talking about spys during the latter part of September and early in October, which goes to prove they have no knowledge of varieties and their season. If this obstacle can be removed consumption of apples will grow, and it will mean profit to both producer and consumer.

At the present time it appears unwise to extend the acreage of apple orchards indiscriminately, meaning by that enlarging with no knowledge of one's ability to grow or sell the apple. One grower mentioned a few days ago that he would plant more trees next spring because he had his market, he knew he could grow and pack properly, for he had already done it, or in other words, "he knows where he is at." Even this year he disposed of his article with little difficulty, and he is justified in extending his plantation. However, the lax, indifferent grower must weary and let go, yielding place to the careful, painstaking fruitman who will, we believe, always be able to dispose of his product at a fair profit in seasons of normal conditions abroad. The bubble of inflated orchard-land values has burst, and we only speak of profit from lands at reasonable prices.

We have confidence in the future of the Canadian apple if the grower will do his part. He must advertise, co-operate and guard his pack and package. He must standardize the product, and teach customers what is best at different seasons of the year, and how to use them. Transportation companies must be communicated with and brought to feel the weight of a Provincial or Canadian-wide organization, and with all this the aim must be the extension of the market. Let it be Africa, South America, Australia or anywhere provided there is a profit, and above all let there be a greater consumption at home. Working towards this end growers will clear away the pathway now strewn with apparent thorns, and when a new era dawns in Canada, as is sure to occur when the war is over, our apple will sell in such a way that growers will be glad they stood their ground.

Our English correspondent in writing to "The Farmer's Advocate" states that he is officially informed that there were at the time of writing, at the end of November, no less than one hundred and twenty thousand British horses in the war. It is a well-known fact that the British army at that time fighting in France was small in comparison to the numbers of the French army and the Russian forces. There must be an exceedingly large number of horses going down daily before the onslaught of infantry and cavalry, and the destruction of heavier guns.

Some Famous Animal Pictures and Their Painters.

Great paintings are at once an illusion of realities and an expression of the artist. They reproduce the subject and reveal the painter. In the form of impressions from nature and from life, they convey truth disclosed through the mind and spirit and medium of the craftsman. Without falling to the level of simple imitation they interpret nature and glorify it. Some of Turner's masterpieces were said to be more

understanding of anatomy and the expression of emotions and human relations. Horses, dogs, deer, sheep and cattle have furnished artists with their choicest themes. With these subjects they have produced canvasses of priceless value and universal esteem among the art treasures of the world, winning admission to that select company whose achievements make them immortal.

It is worthy of special recognition that among successful painters of horses two women, Rosalie (Rosa) Marie Bonheur, of France, and Lucy Elizabeth Kemp-Welch, of England, stand in the very foremost rank, being especially distinguished by boldness of design and vigor of execution. The French woman was born at Bordeaux in 1822 and died in 1899. Her father was a drawing master and she was intended for a dressmaker, but her misery at the prospect caused this purpose to be relented, and at eighteen years of age her picture, "Goats and Sheep," won admission to the Salon. When twenty-three she won a medal of the highest distinction, and in 1853 produced "The Horse Fair," easily one of the most famous pictures in the world, that sold for over £12,000. She was decorated with the Legion of Honor, and was one of four children all artists. To facilitate her studies and her movements in tramping about the horse marts, fairs and stables she donned male attire, and at maturity was a woman of shaggy, white hair and striking appearance. She made home on a farm near Fontainebleau and gave gratuitous lessons in drawing. "The Horse Fair" is a wonderful composition, dramatic in action and masculine in treatment. Her "Deer in the Forest" is a restful picture, and "Oxen Plowing" a powerful and popular picture often reproduced.

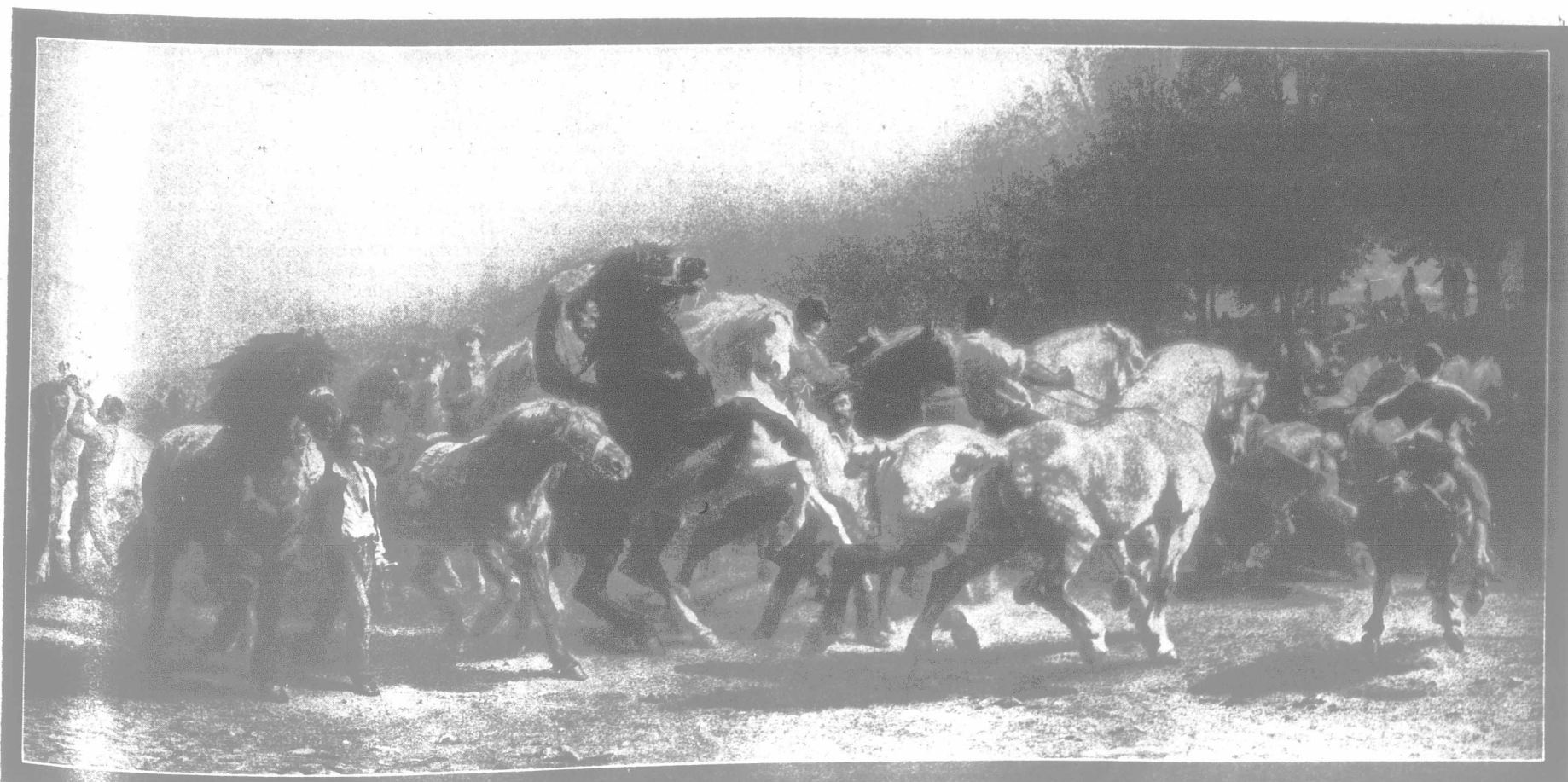


A Distinguished Member of the Humane Society.
From a painting by Sir Edwin Landseer.

Venetian than Venice. Genius eliminates the unlovely and the discordant from a given view, combining a wealth of impressions that one sweep of the eye could never realize, and what the crowd of careless observers would never discern.

In the choice of subjects, the artist may depict an old rail fence or a rugged tree with such skill as to make it perpetually admirable, but the canvas will fail to rival in its wide appeal and stirring of emotions "The Horse Fair," "Shoeing the Bay Mare," "The Return From the Fields," or even the big life-saving dog by the water side. The highest achievements of art are with the human figure; and perhaps next in complexity of demand upon the capacity of the painter comes animal life for the reason that it involves such skill in the fundamental requisite of drawing, an

Lucy Kemp-Welch, sometimes called "The new Rosa Bonheur," is an English woman of quite another mould. From her father, Edwin Buckland Kemp-Welch, of Bournemouth, a botanist and a collector of repute, she inherited a love for animals and the outdoor life of which she has been a devotee. Without special early opportunities to study art or the aid of artistic ancestry wealth or influence she has achieved distinction in a most difficult field. Her natural gifts and enthusiasm were stirred by an exhibit of Sir Noel Paton's pictures at her native place, and she became a student in Prof. Von Herkomer's art school at Bushey, to the management of which she subsequently attained with both courage and success. An early picture "To Arms" secured honorable mention at the Royal Academy, at once exciting the favor of English lovers of good work. "The Gipsy Horse Drivers" was hung in



The Horse Fair.

After the famous painting by Rosa Bonheur.

the Academy exhibition of 1894, and "The Return From the Fields" reproduced for the Christmas time readers of "The Farmer's Advocate," was in the academy collection of 1913, published by Cassells. The fidelity with which she portrays the powerful though weary home returning farm horses stands out in every line, and would entitle her to distinction were it the only painting from her hands. "Lord Dundonald's Dash at Ladysmith" is another famous canvas. She has painted many beautiful pictures of birds and other animals in their natural habitat. Her pictures are to be found in some of the most famous galleries, one "Horses Bathing in the Sea," adorning the national gallery at Melbourne, Australia. Sir Edwin Landseer was her early hero, and for Rosa Bonheur and Eliza Peth Thompson she had a deep and abiding admiration. An interesting personality of charming manner she lives in a quaint old home, "Kingsley" in Bushey, and through the art school she exerted a wide, direct and wholesome influence upon the art of the present day.

Constance Troyon (1810-1865) painter of "The Return to the Farm," a deservedly famous masterpiece was a native of Sevre, France. Left fatherless he was reared by his mother, a woman of artistic skill, and a relative who was the keeper of a museum and gave lessons in drawing. In young surroundings the natural gifts of the young man were developed, and his zest for painting was whetted by meetings with such men as Dupre and Rosseau. He was a lover of the out-of-doors and animal life as one might readily gather from the composition and spirit of the picture reproduced. As an artist he anchored on the sound dogma "no such thing as luck" in painting. His habit was to work, largely with the brush, on many pictures at a time, touching and re-touching until the measure of perfection toward which he strove was reached, but he was withal facile and rapid in the expression of his ideas. His pictures were admitted to the Salon, and in due course brought him widespread fame and competence which he used with discretion.

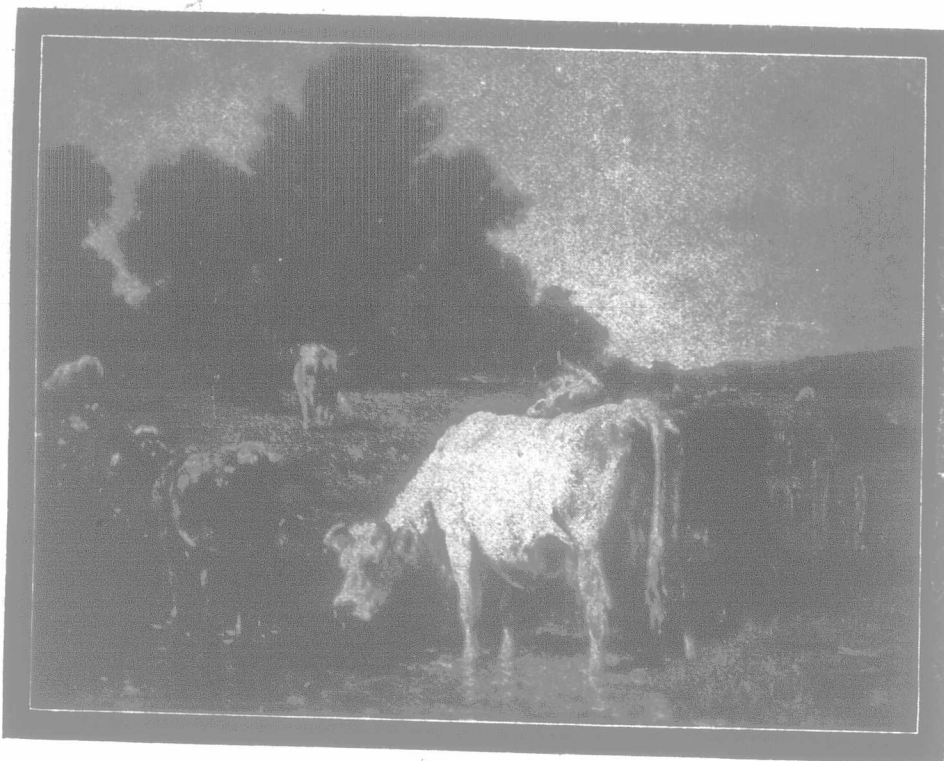
From a host that might well have been chosen, two immensely popular pictures by the world-famous English painter, Sir Edwin Landseer, (1802-1873) have been selected for reproduction. Perhaps no artist of modern times could be named whose horses, deer and dogs have been so universally cherished in the homes of the common people, one sure indication of the truthness of his genius. Few men have done so much to inspire a love for animals which he almost humanized in the intensity of their expression. In the principal picture reproduced by the management of light flooding the shop, skilful drawing, and the subsidiary figures of donkey, dog and blacksmith he portrayed the high-spirited mare in a way that made her immortal. Thousands of persons old and young have been and will yet be delighted to study the watchful solicitude of the noble dog in the picture designed "A Distinguished Member of the Humane Society," "Dignity and Impudence" (the big hound and the terrier side by side), "The March of the Glen," and "The Old Shepherd's Chief Mourner," are pictures that readers everywhere will recall. Sir Edwin was one of a family of seven children, all gifted, and his father was an engraver, and an artist of no mean order who taught his son to draw and paint in the open fields near London, thus giving shape and tone to a career that will go on repeating itself in lines of beauty and wholesome sentiment while the world in its present order lasts.

"Farm Scene With Cattle" is typical of many charming landscape and animal pictures painted by Emile Van Marcke, a pupil of Constance Troyon and a native of the same place, where he was born in 1827. He was awarded medals in 1867, 1869 and 1879, a First Class in 1878, and the Legion of Honor in 1872. He died at Hyeres in December 1890. His artistic pictures are remarkably beautiful pictures of the kind highly prized as works of art. He was equally equalled him in the portrayal of animals. He was the fortunate possessor of the original of the picture reproduced. To the director, F. B. ... indebted for notes regarding the picture.

Edwin Douglas, a Scottish painter, born in Edinburgh in 1848 and of long residence in Eng-

land, where he went in 1872, has been described by good authority as a not unworthy successor if not as equal in artistic sentiment and technique to Sir Edwin Landseer though perhaps not equal to him in inventive power, design and the control of motives which gave Landseer's paintings such a wonderful hold upon the public. The favorite subjects of Douglas were horses and cows, and to the latter studies the presence of dairymaids added fascination and popularized his works for reproductive purposes. One of his pictures entitled "Spring" is most successful in the way it interprets the spirit and atmosphere of the season. On the walls of a school or home in good engraving size the sprightly foal and the mare nibbling at a bit of foliage appeal strongly to young people and all lovers of outdoor life.

Examples might be given of a large group of paintings classified as landscapes in the composition of which animals, usually in herds or flocks, occupy a subsidiary place. Some of the works of the distinguished Canadian-American, Horatio Walker, are in this category. Anton Mauve, a distinguished Dutch artist utilized sheep, in this way his "Spring and Autumn" being justly famous masterpieces of the 19th century. Joseph Farquharson, A. R. A., many of whose pictures have graced the Royal Academy of England, has been a successful specialist of wintry scenes with flocks of black-faced Highland sheep. Reference might be made to the works of many recent artists on both sides of the Atlantic, but lack of space precludes. In battle and historical paintings horses have figured conspicuously in past times, and war has been an incentive to certain forms of art. The object of these cursory notes will have been served if they stimulate the inter-



Landscape with Cattle.

After a painting by Emile Van Marcke.

est of Canadian homes and schools to a type of pictures that not only appeal to the love of the beautiful but are educational in more than an artistic sense. It is gratifying to find an increasing use being made of pictures in the public schools, and those illustrated in this issue of "The Farmer's Advocate" are peculiarly adapted for country as well as town. Modern skill in reproductive processes by such establishments as the Perry Pictures Co., The Elson Art Co., and others that might be named have brought the masterpieces of the world in really beautiful forms within the reach of all, and there is now no excuse for the disfigurement of walls with the unsightly and often gaudy chromos of the past.

In this invasion of Poland the German armies included in their armament harvesting and threshing outfits in large numbers to take the maturing grain crops away to their own land. In Belgium they seized the mills for the use of their troops, so that the starving people could not grind their own grain, as wheat was sent them from outside.

John Bullard's, the distinguished American nationalist and author, very tersely describes the Kaiser's "Lebensraum" against Belgium and France as "a name for the collection of vast organized lands of our own." The "Nation" of England considers that it is very near the secure judgment of the war.

The War and British Columbia Agriculture.

By Walter M. Wright.

British Columbia is feeling the weight of the iron hand of war, but our depression is not all due to the war by any means, that surely aggravated. It is the result of speculation built merely on past speculations. Not only that, British Columbia has not been a self-sustained province, but her people have been specialists driven to it by high-costing labor and expensive transportation. She has no manufacturers, and her lumber and railway camps keep moving, thus affording no regular market for such things as these require. Those in outside provinces get cheaper transportation rates in the majority of cases and at least as low in nearly every case. Hence outsiders, because of cheaper labor, can send in farm produce at lower cost. That is why we have been forced to go in for the luxuries that the farm can produce, such as fruit and dainty vegetables, like celery, early tomatoes and so on, buying what we need from the outside in the way of staples, because we can produce a more valuable crop when times are good. Then when the market tightens we become almost panic stricken and must indulge in an expensive re-organization. The Government recognizing our lack of agricultural inclination gave assistance to every attempt to open up land and recklessly encouraged it, seeing nothing ahead but prosperous times, and did not put the restraining hand on development companies that it owed to those whom these brought in and who now have to shoulder these mismanaged promotions. War time, with its uncertainties always causes an unsteady and fluctuating market, for selfish interests will always have first place with a huge majority; those who have will hold.

Much of British Columbia's farm produce is of a perishable nature. Fruit and vegetables are a product that it is natural to expect will be grown here. Climate makes it advisable. Soil, except on the coast low lands is to be had in only comparatively small parcels, these are rich and tend to induce the practice of intensive methods and intensive crops have been, up to the present, perishable crops. War drives people to use but necessities, and as yet many people consider most vegetables, other than potatoes, onions, etc., unnecessary articles on the table, and they cease to buy the others. Many still consider the apple a luxury, and to clear people's minds of the absurdity and help prevent the blow the war was sure to bring to this province the Government put added energy into the intended inauguration of "B. C. Apple Week" in Calgary and Vancouver. It was seen that Eastern fruit would come West rather than take the ocean trip to the Old Land, its usual market. Exhibits and window displays were held in these cities and advertising

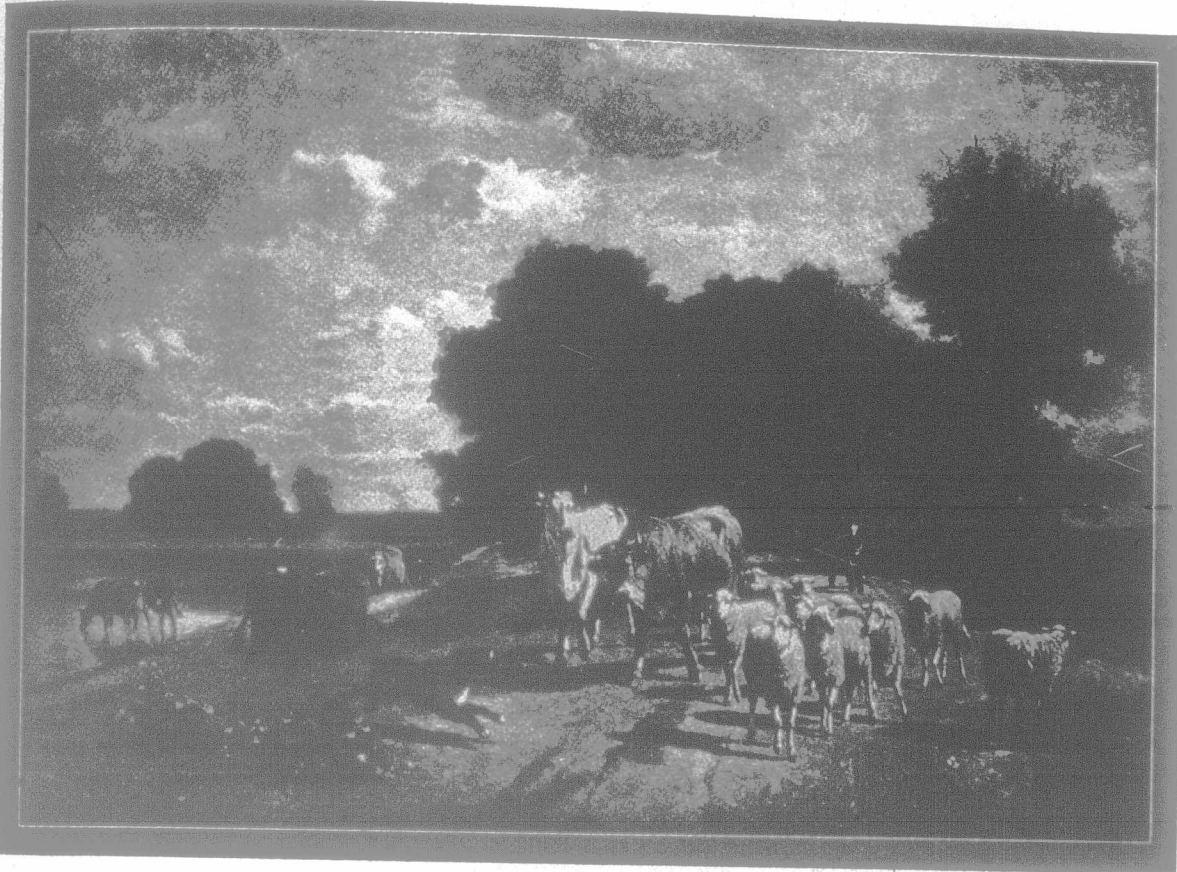
done in the papers. Slogans appeared as head lines such as, "An apple a day keeps the Doctor away"; "Red apples make red cheeks," and others equally convincing. A prize contest for originating the most catchy slogan drew forth quite an interest. This is practically the first attempt to set profits by those interested in the sale of farm produce. Those interested agreed to a schedule of 25 cents per box to the retailer, 12 cents to the wholesaler, 6 cents to the publicity committee, and the railway to get the freighting. This is a very promising precedent, and farmers everywhere will do well through any and every organization to push it. Apples generally, are down, but are retailing in Vancouver at \$1.25 per box for Jonathans, British Columbia's fine quality apple. No stockman who wishes to keep his cattle in the best of health would inflict a strictly hay and grain diet on them but has succulent food to give them as a corrective, and why should man expect to go through the winter on a less efficient diet? It pays to use apples as a digestion corrective. Correctives are a necessity, and British Columbia is forced to prove it, and also to demonstrate that the apple is the best and cheapest, and a home-grown article at that. Much of her crop will not be marketed, but held over ready conditions warrant an attempt and the apple week's advertising may do more than appears.

Much of the prosperity of the interior depends upon the ready disposal of natural and cultivated hay, but for a time things looked pretty black for the hay men. Hay would not move; lumbermen would not open; contractors and liveries had less to do, so the market died. Vancouver is

our therm stringency tion. Th situation close to year ago pression p adjustmen market is mercantile prices down The da as-if nothing good both seems to 40 cents gan, as r solid stap The war h producer c so cheap, lower at f New Zeala vince, and stores. Horsen open fall caused no unusual, s terior.

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Celery found the and have vegetable- men's son constructi close do no new fe men had p But to goin to grow in ship's huts and



The Return to the Farm.

From a painting by Constance Troyon.

our thermometer and there is much poverty and stringency there, due to the unchecked speculation. Throughout the Okanagan a little better situation prevailed, as it had been pulled down so close to the bottom by real estate reaction a year ago that there is not much more of a depression possible, and people had started some readjustment. But the greater part of the hay market is within British Columbia, and coast mercantile depression had tended to keep the prices down on hay all through the interior.

The dairyman and poultryman go right along as if nothing had happened. The former makes good butter, and can sell it all locally. Butter seems to be a necessity and so regarded by all; 40 cents per pound retail prevails in the Okanagan, as right through the province. It is one solid staple holding a better position than eggs. The war has in no way hurt the British Columbia producer of these. Because this is so, and hay so cheap, for it is down in the Okanagan and still lower at the coast, cows are not on the market. New Zealand still has a good market in this province, and much of her butter is still seen in our stores.

Horsemen cannot make sales, but it has been an open fall with pasturage late and hay down has caused no great fear, though sales of horses are unusual, still good prices are demanded in the interior.

A visit to the butcher shops would lead one to think that when he is offered pork at around 25 cents per pound and beef the same, that the farmer must be getting a good figure for his stock, but not so. However, the drop may only be temporary, and is in part due to the quarantine in the United States and also to the fact that the market is under corporation control, even stronger than our fruit is. Much relief might be given by Government if it would act to regulate this. If our farmers who have meat to sell could get a reasonable figure it would put a little more confidence in affairs, for there has been a healthy growth in the pork industry though not so much in beef, and it justly deserves a larger share of its profits finding their way to the farmers' pockets.

Poultry is not in demand, but our poultrymen are feeling easy. Grain being up on account of the war has somewhat lowered the profit, but 15 cents per pound will induce the sale of chickens, and as much of this meat does not pass through the wholesalers' hands the inducement to sell is unimpaired. To eggs the same applies, and local markets consume more than are produced in the province.

Celery growers in the northern Okanagan found the market closed when the war broke out, and have experienced a similar condition to other vegetable growers. There, hay is grown for shipment south to the fruit districts, for livery, construction camps, etc., and these are largely closed down, so they have a double burden with no crop felt from the early market as the fruitmen had previous to the war.

Peas were somewhat of a failure and are going to bring a good price for seed, hence the growers are selling readily, expecting outside shipments to come in, holding only for seed.

As to what effect the war will have on crops and prices for next year, will largely depend on

the turn of the tide of battle by the middle of January. If indications point to a close of hostilities no doubt gardeners will go on as usual; if not, other plans will have to be made. Tree fruits will have less attention if the war keeps up, but there seems as yet to be little consideration as to the changes that may be advisable.

Camp Fires of the Bush.

By W. H. Ogilvie.

The river roads of the less settled districts of Australia are scarred with the grey ashes of the camp-fires of her travelling population. Hotels are few and far between, and the man whom business or pleasure calls along these highways must carry with him his blankets and his provisions, and camp where he may—that is, wherever he can find grass for his horses and wood and water for his needs. There is no road in the bush so remote and lonely, but that the horseman passing in the night will be cheered every few miles by the glow of a wayside camp-fire, where drover, teamster or swagman has drawn in to the river to rest. These camps differ from one another in many ways, but they have one point in common—they are all chosen with a view to convenient proximity to the road and to the water. Thus, on these highways which follow a

winding river, leaving it and returning to it again, the bushman's camp may be located for at the places where the road approaches the river bank most closely, and here may often be found a regular colony of camp-fires, while the bends of the creek are musical with the bells of horses and bullocks turned out to feed upon the river grass.

Perhaps the teamster's camp is the most noticeable of all, because these carriers of the Bush generally travel in companies of two or three, and there is no chance of missing the clash and clatter of the bells of sixty or eighty bullocks or twenty or thirty horses. As you ride along the road at night you will see far off the glitter of a fire among the trees; soon you will hear the boom of the big bullock bells mingled with the melodious tinkle of the lighter horse bells, and the barking of an ever watchful cattle-dog is sure to herald your approach. As you come nearer you see the figures of one or two men silhouetted against the flames, and nearer still you are aware of the dark towering bulk of the loaded wool waggons looming up through the darkness.

The teamster, as I have hinted, chooses a spot where the road runs close to a good pool in the river, and drawing his waggons slightly off the road simply looses the bullocks from their yokes where they stand. If you ride up to his camp-fire you must proceed cautiously, or your horse is liable to trip over the yokes and bows laid in a line upon the sand. The teamster's chief concern is for the welfare of his bullocks (or his horses, as the case may be); for his own comfort he cares little, but on his beasts of burden he is dependent for his very living and he must see before everything else that they have water and grass. His own camp outfit is of the simplest. He builds his fire in convenient proximity to the drawn-up waggons, and upon it he boils his billy of tea, cooks his mutton, and bakes his damper. In the waggon he carries a "tucker-box" which contains his bread and meat, his tea and sugar, and any other extras which he may have. Sometimes he carries tin plates, and knives and forks, but as often as not he considers these things unnecessary luxuries and does his carving with his clasp knife. By the camp fire he sets his tucker-box, and using the top of it as a table sits down by himself or with his mates and takes his simple meal, a meal, which in accordance with the hospitable traditions of the Bush, he is always ready to share with any belated traveller who may find his camp.

The teamster, like most bushmen is rather a silent companion to the chance acquaintance who shares his supper and the light of his camp-fire. If you have come from the direction in which he is travelling he is always eager to know the state of the grass and water ahead of him. His thoughts are more with the welfare of his bullocks than with the larger questions of the day. It may be many weeks since he was last in a good-sized town, but he evinces little interest in either local or national politics; there are exceptions, of course, to this attitude, but as a rule the teamster gives you the impression of caring little for the matters beyond his dusty kingdom. He is conscientious about keeping



The Return from the Fields.

After a Royal Academy picture by Lucy Kemp-Welch. By the courtesy of Cassell & Co., Limited, Publishers.

time and faith with his employers, and anxious about his bullocks in which he takes a special pride; but for the rest the world may go by him. He smokes contentedly, gazing at the stars that blink through the tasselled pines above him and listens approvingly to the clashing bells that tell him that his charges are on plentiful feed.

Each teamster has a saddle horse which he uses to round up his cattle or horses, when at the first streak of dawn he sets out in pursuit of his distant bells. This horse he either hobbles in the vicinity of the camp where he may be easily caught in the morning, or ties up to the waggon and feeds with corn or chaff in an improvised

manger made of sacks slung between the shafts. The blue cattle dog is an important feature in every teamster's camp. He generally lies under the waggon and is a personage to be avoided, especially if he is on guard in his master's temporary absence, for, being a "heeler" by profession, he is apt to sneak out unseen and nip the heels of your unsuspecting horse, or your own heels if you approach him unwarily on foot. He is indispensable to his master, who is often compelled to be many hours away from the waggon when looking for strayed bullocks, or when visiting a neighboring station to buy meat or flour.

The teamster, tired with his long dusty tramp in the blazing Australian day, goes early to bed; and if we look back when half a mile further down the road we shall see his camp-fire already burning low; and he is probably even now asleep on his rough camp bed and deep in dreams to the music of these ceaseless bells.

The drover's camp is one of the most interesting on the river road. At certain intervals along the main stock routes there are placed, at convenient points in proximity to the river, large circular yards or enclosures, fenced with felled trees and branches. These are called "Sheep brakes," and have been built by drovers to hold their sheep at night, and are used by other drovers as they pass that way. The drover arranges his day's stage so as to reach one of these brakes when the sun goes down. Sometimes he finds the fence out of repair, but half an hour's work with an axe soon puts that right. The sheep are driven within the enclosure, and the entrance blocked with boughs or a fallen tree. They are then safe for the night and the drover is relieved of considerable anxiety, for no watch need be kept, and he is sure of finding his full numbers when he resumes his journey at dawn. If by bad management he happens to miss one of these brakes and has not left himself time to build one, he is obliged to camp his sheep in the open and to set men to watch them all night. Hence the brake plays a very important part in the drover's choice of a camp. Having found, by riding ahead of his flock, some such suitable spot and a sheep brake in good order, the drover sends on his cook with the dray or waggonette, with instructions where to camp, and then sets himself to get as much feed as possible for his sheep before shutting them up for the night. As the dusk falls he drives them in towards the river to the point where, red and gold against the pine trees, flames the cook's camp-fire. The sheep

are yarded, the horses hobbled and belled and turned out on the best available grass, and the shepherds gather at the fire where the cook has probably prepared supper for them. There is no more cheery camp in the Bush than a drover's if the season is good, the sheep strong and fat, and grass and water plentiful. There is more comfort here than in the teamster's camp. Tents are carried; though they are seldom used unless the weather is wet. As there is plenty of room in the waggonette or dray a man need not dare himself a sufficiency of blankets or those

changes of clothing which make all the difference between comfort and discomfort.

The cook is generally a man of ability who takes pride in having a good meal ready for the dusty, saddle-weary men, and there is nothing more grateful in the world than the after-dinner smoke in a drover's camp when one has supped well, and lies on spread blankets under the stars, at peace with all mankind. It is scarcely so pleasant, perhaps, in a bad season when one is desperately weary with dogging starved sheep across the barren plains, when perhaps the cookery is bad, firewood scarce and tempers short, and when through the absence of a sheep

tales of adventure in many lands; for all sorts and conditions of men make up the personnel of a drover's camp—broken down gentlemen, soldiers, miners, sailors, farmers; even the cook may be a marquis in disguise.

There is less air of ease and contentment about a cattle camp. There is a feeling of strain and anxiety which never really leaves it, for there are no brakes or yards built for cattle; they must be rounded up on an open space and there watched all night by a mounted horseman, while at any moment the spirit of panic may obsess the timid beasts and the whole mob stampede for miles. In such circumstances the head

drover is too anxious and pre-occupied to encourage the merry abandon which pervades the sheep camp. Tales are told, certainly, and jests are exchanged, but a sense of insecurity pervades the little circle and from time to time anxious glances are directed towards the dim and shadowy outline of the resting mob. Furthermore, as each man has to take his turn of watching, he is concerned with getting to bed as soon as possible so that he may snatch the utmost amount of sleep available before his shoulder is roughly shaken and he is summoned by a companion to mount the night-horse and take up his lonely guard. There is watching, too, on the sheep camps when the flock is in the open, unfenced yard or brake. The man on guard lights a number of small fires around the flock at some little distance from it, and during his hour of watch walks from fire to fire, replenishing them with fresh wood and turning back any restless sheep that show signs of moving off camp. Many are the pine and myall logs that are burned to the Goddess of Memory on those lone night watches! For these are the moments when a man is thrown back on himself and sees in the shadows of the surrounding scrub the wraiths and shadows of the years.

No bushman camps in more ease and luxury than the government surveyor. Whether he be tentatively mapping out the line of a new railway, or pegging out Government land available for selection, his work compels him to make a more or less permanent camp at some point convenient to the operations which he is conducting. Thus the surveyor's camp has an air of stability about it quite foreign to the one-night camps of the drovers, teamsters and other wanderers on the open road. Large, roomy tents are erected and a kitchen and storehouse made of bark and boughs with a stout, bark-topped table and benches where the men have their meals.

The commonest camp-fire in the Bush is that of the sun-downer or swagman—the tramp of the back country—who walks from station to station with his blankets, his provisions, his scanty wardrobe, and indeed all his worldly possessions, strapped in a bundle across his shoulders. Like a lonely flower of the night his small red fire glows in almost every bend. The silent mystery of the great Bush at night seems not to oppress him in the least. Having found a suitable spot, with firewood and water, he drops his bundle from his weary shoulders and proceeds to gather sticks for his fire. Then he fills his quart pot at the river and sets it on the fire to boil, then looks round for a suitable piece of ground on which to spread his blankets. If the night be fine, as nine out of ten Bush nights are, he will merely seek for a spot where the ground is comparatively soft, and throwing down a few leaves or pine-twigs spread his blankets upon them. Nothing could be more

(Continued on page 2155.)



In the Lumber Woods.

brake the restless hungry creatures must be watched all night.

But let us suppose that circumstances are favorable, that we have a good Boss, an excellent cook and a cheery company of rough but good-natured bushmen, with the inevitable humorist among them. Then it is a merry little gathering indeed that takes supper sitting in a circle round the roaring myall logs; each man with a tin plate of chops or curry or roast mutton on his knee, a slice of bread in his hand, and a pannikin of hot tea at his feet; the horse bells jingling round the camp; the full-fed wethers coughing in the brake. Then the rough, homely jests fly from one to another, and



A Bathing Beach on the Emerald Isle.

fills his quart pot at the river and sets it on the fire to boil, then looks round for a suitable piece of ground on which to spread his blankets. If the night be fine, as nine out of ten Bush nights are, he will merely seek for a spot where the ground is comparatively soft, and throwing down a few leaves or pine-twigs spread his blankets upon them. Nothing could be more

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Through Twenty-five Years.

By Archibald MacNeilage.

Fully a quarter of a century has passed since I first began to write for "The Farmer's Advocate." The changes alike in Canada and in Great Britain in that period have been enormous, and not least so in respect of agricultural affairs. From the point of view of the tenant farmers of Scotland the greatest change has taken place in the relation in which they stand to the tenure of their holdings. The Agricultural Holdings Act had in 1889 only been recently passed, and its clauses securing a measure of independence to the tenant, were hedged round with many arbitrary restrictions so that to some extent the main purpose of the Act was, if not defeated, at least crippled. This has been the bane of efforts at land tenure reform in this country almost from the beginning. The equity of the tenant's claim to have his capital safeguarded could not be gainsaid, but every effort was made to prevent the claim being made effective. Still, with all its defects, the Act passed in 1883 contained the germ of a revolution in land tenure. It laid down the principle that whatever was in or on the land belonged to the man who put it there, a wholesale departure from the principle which had previously ruled—which was that whatever was in or on the land belonged to the man who owned the land. In consequence of the operation of this latter principle time and again tenant's improvements were confiscated; he was compelled at the end of his lease either to leave the holding, and all the capital he had expended in improving it, or to submit to an exorbitant demand for increased rent—due to the improved condition of the holding effected through the expenditure of his own capital. One tenant who, time after time, had been subjected to this kind of extortion at length turned. He asked his landlord when this sort of thing was to cease, and received the cynically candid reply, "John! as long as you improve your farm I'll raise your rent." The effect of such a policy is self-evident. Tenants discovered the benefit of quick-acting manures, and in many cases protected themselves by farming well during the earlier part of their tenancy of nine-teen years, and in the latter part scourging the land and taking all they possibly could out of it. This was a bad policy for the country, and not good for anyone, and in consequence the Act has from time to time been amended so as to secure to the tenant the full benefit of his capital expenditure, should he be compelled to leave the farm at the end of his lease. It goes without saying that it is not always easy to appraise the value of what remains from the capital expenditure. There is room for difference of opinion alike as to the basis of valuation, and the rate of valuation. What amount may represent the residual value of what remains in the land is not easily arrived at, and the extraordinary difference between what the tenant sometimes expects or claims, and what the arbitrator awards him leads to the conclusion that there is no sure basis on which to estimate residual manorial values.

About the same time the Crofters Act was passed. The significant fact connected with it is that it gave security of tenure to the occupiers of small holdings within what was arbitrarily termed as the Crofting area. This area embraced the whole of the northern counties of Scotland, including Inverness and north thereof, along with Ayrshire—but excluded from it were counties like Bute and Banffshire and Aberdeen,

in which Crofting conditions unquestionably prevailed. The counties to which the Act applied benefited greatly through its provisions. Having been granted security of tenure the occupiers began at once to improve their dwelling houses, and this in itself was a great social gain. They also improved the equipment of their holdings when they could command sufficient capital to that end. It cannot be said that they improved as they ought to have done their methods of cultivation. These remained decidedly primitive, and in some districts even yet there has been little

nothing remains for the original owners. They are little better than annuitants drawing a certain sum to keep them alive. Their estates are managed by firms of lawyers who represent the holders of the bonds over the properties. A section of the community in view of these things hold the view that the legislature should boldly tax the remaining value standing in the name of the titular owner out of existence. This policy does not commend itself to any right-hearted man. It is a policy of confiscation, and anyone who urges a policy of national theft is doing something akin to the action of the Kaiser in the International sphere. It is not a crime to own land, and no man should be penalized because his investments therein have not turned out quite as favorably as they might have done.

The condition of this country in respect of Contagious Diseases among stock is one of the most satisfactory features of the past quarter of a century. At the beginning of that period we were fighting a hard hand to hand battle with various diseases, in particular pluro-pneumonia, among cattle, and rabies among dogs. Today both diseases are extinct; we have known nothing about them for years—and no country in the world has as clean a bill of health as this which has been called the stud-farm of the world. Two forms of contagious disease have, however, during the whole of the period, been more or less troublesome. One is foot and mouth disease, and the other is swine fever. The former relatively to the success achieved has not been costly, but the latter has entailed an enormous expenditure, and by the latest returns we appear to be as near to seeing the extinction of the disease as when we started. It cannot be said that either of these results is creditable to the authorities. This does not arise from lack of diligence so much as from lack of will to carry out extensive and painstaking research. The prime difficulty is that those whose duty it is to guide administrative policy do not really know what the two diseases are. I mean by this that according to modern theories as to the causation of disease they have not yet been able to isolate and to cultivate the bacillus of either of these diseases. Until this has been done it cannot be claimed that even a beginning has been made with the war against the diseases themselves. The only thing that can be done is to stamp out the disease, and this has again and again been successfully accomplished in the case of foot and mouth disease, but little or no progress has been made through dealing in a similar fashion with swine fever. It has frankly to be acknowledged that in respect of these things there is little room for boasting.

The war against the tuberculosis was entering on a hopeful phase when the Kaiser precipitated this European holocaust, and all hostilities against the disease have been suspended. A notable feature has been the reluctant admission of Scottish cattle breeders that the tuberculin test and its efficiency as a diagnostic cannot be ignored. Resolutely the leading breeders of this country set their faces against accepting the tuberculin test. They despised Bang's successful method of fighting the scourge in Denmark, and they for a time defied the demands of their customers that cattle should be sold subject to the test. The first section of the breeders to give way was the Ayrshire men. They simply had to give in and face the test, because their oversea customers insisted on it, and to have refused would have meant the loss of the export trade. But while they had to meet the demands of their customers, and sell subject to the test, very few



A Sheep Dog.



A Rest By the Way.

advance along this line. But the great point in this legislation was the recognition of a tenant's right to security of tenure—that is, that having improved his holding at his own expense, he could not be ejected therefrom at the caprice of the land owner. The bearing of this on the larger question is that the principle having been conceded of a tenant's right to enjoy the fruits of his labor, it cannot permanently be restricted to those occupying farms not more than 50 acres in extent or paying more than £50 of annual rent. If the principle is sound for the smaller man it cannot be unsound for the man occupying a larger holding. Of course, it can only be made ap-

plicable by statute, and there is no immediate prospect of any further legislation along these lines. We now have other things to think about. There is a recent phase of this agrarian question. Land has depreciated in value so much, as compared with what it stood value for thirty years ago, that not a few land owners are only nominally the proprietors of their estates. These estates are mortgaged to an alarming extent, and having been valued on rents which were at least one-third higher than those at which they are now

of the Ayrshire men addressed themselves to the big task of eliminating the tuberculous cattle in their herds. Now there is a change, and next week we are to have a sale of bull calves at Lessnessock at which every animal is sold subject to the tuberculin test with authenticated milk records of dam and dam of sire. This is a great step in advance, and the result may be epoch-making. Shorthorn breeders simply defied the test until 1913. The northern breeders led by Mr. Duthie would have none of it, and for many years so keen was the demand for Aberdeen Shorthorns that they could afford to do so. Buyers were determined at all costs to have these northern cattle, and they themselves took the risks attending the test. But in 1913 "the worm turned." The foreign buyer had got his fingers severely burned, and was not anxious to repeat the experience. The Collynie and Upper-mill calves in that year were all tested, the charts published, and the exposers took the risks. Nearly twenty years have passed since Lord Carmichael, now acting somewhere as a British Proconsul, handled his Aberdeen-Angus herd on the principles advocated by Professor Bang, and when his herd was dispensed he reaped the benefit. But others have been slow to follow this lead, and perhaps fewer herds of this breed are being tested than of any other. Still, we are making progress, and whoever lives to see the close of another quarter of a century will have a very different story to tell.

Agricultural Education has been organized and prosecuted with great vigor during the period under review, and yet to-day we are asking, what has accrued to the average farmer from the prosecution of this work? Is the farming to better purpose and to greater profit? In how far can the Colleges have been said to have added to the equipment of the farmer for the duties of his calling? Twenty-five years ago and long before we had a chair of Agricultural and Rural Economy in the University of Edinburgh; Mr. (now Sir) Robert P. Wright had begun as a private venture, a lectureship in Glasgow; in Aberdeen there was a Fordyce lectureship in the University connected with agriculture. It must be acknowledged that these three teaching centres were viewed by farmers with an air of benevolent neutrality. Some of the more enterprising, who believed "that knowledge is power" attended and profited, and gradually it leaked out that something was to be learned at these colleges, and the teaching facilities were extended. Now we have three well-equipped agricultural colleges—one in Edinburgh, with which the old chair of agricultural and rural economy is linked up; one in Glasgow affiliated with the university, and one in Aberdeen which is to all intents and purposes a department of the University. We have in connection with each a college farm and experiment station, and the benches of all three are thronged. Yet in spite of all this the problem is still unsolved of getting farmers and their sons and daughters to attend. The great majority of the students are employees in the city, salesmen, manure merchants, implement makers, every class in fact who have dealings with farmers, but those actually attending from farming households are a small minority. That class are more numerous in Aberdeen than in either Edinburgh or Glasgow, but one is forced to the conclusion that those who trade with farmers have a keener consciousness of the value of agricultural education than those engaged in the prosecution of agriculture as their lifework. This fact should be conclusive evidence to all that the instruction imparted in the colleges is valuable

The man who wants to trade with the farmer finds it profitable to know as much as possible about chemistry and bacteriology as applied to agriculture, and what he finds beneficial in his trade ought to be at least equally beneficial to the farmer with whom he is to trade. A mere book-farmer is of little use, but a practical farmer who knows his book has a big pull over his neighbor who does not.

A vast amount of experimental work has been carried out by the colleges. Its main value has been to show how generally accurate have been

now may get near to the present average, and the present average may attain to the level of the best. All such work is of necessity slow, and meanwhile we cannot boast that the results are equal to the money and time expended on the effort.

I might have taken another line in this review, but these three departments appear to me to indicate what has been most marked in the general agricultural situation since I first began to write to this paper. And now, I wish continued prosperity to the great Dominion of Canada and prolonged life and extended usefulness to the proprietors and the staff of "The Farmer's Advocate." Under happier auspices than now prevail one would like to renew his acquaintance with many friends in the Dominion, but present duty in the British Empire is obvious; and throughout that Empire there is one resolve—to see justice done to bleeding Belgium, to humble the pride of Prussia, and to establish peace throughout the world on a basis of righteousness and equity.

War.

What do I see? Great God, the world around me
Is filled with clash of arms and
burst of shell
And writhing bodies!—stay, the
sights confound me,
God's lovely earth is now a
raging hell!

What do I hear? All sounds in
wild confusion,
The clang of steel, the roll of funeral car,
And music's strains—forsooth, a weird intrusion
Amid the hellish tumult of the war.

My vision reels! Can these be God's loved creatures
Who drench with brothers' blood the trampled
sod?
Pride, hate and vengeance mar the noble features
Destined to bear the image of their God.

Steady, my soul, and trust; Jehovah reigneth:
He setteth bounds; the times are in His hand;
Though nations rise and wane, His throne remaineth,
The armies cease to strive at His command.

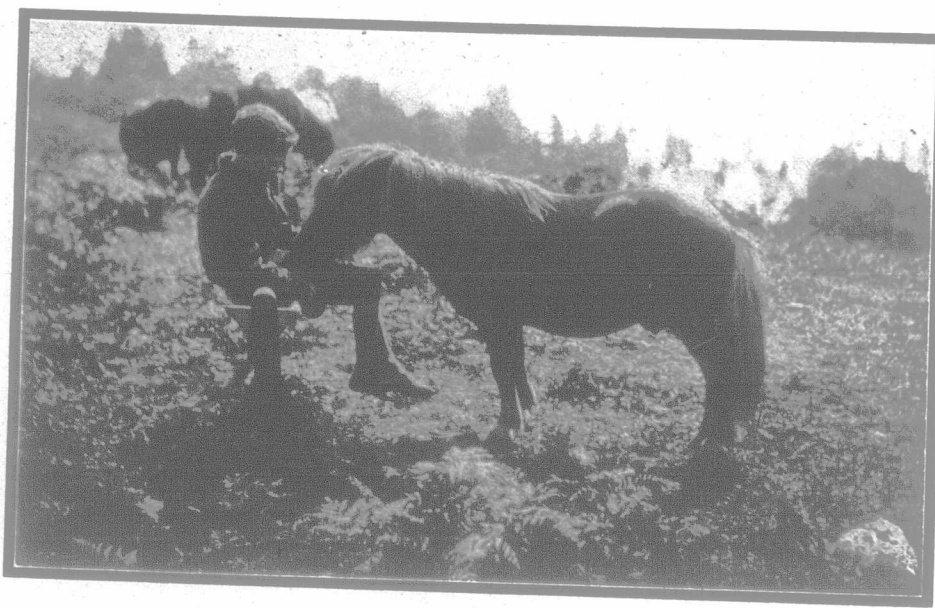
O God of peace, look on
those fields of
slaughter,
On those dark scenes
where death and
terror reign,
See those red streams
where life-blood
flows like water,
And in Thy mercy
visit us again.

Out of the cannon's
roar and mus-
ket's rattle,
And clash of armed
men, that pierce
the skies;
Out of the wreck and
chaos of the
battle,
Grant that Thine own
calm, sobered
peace may rise.

Hasten the time when
war shall cease
its raging,
And Thy great mind
be rightly un-
derstood;
When acts of peace and
love, our minds
engaging,
Shall bind us man to
man, one
brotherhood.

—R. A. Hanley, in The
Westminster Maga-
zine.

Let all those who
as joyful as possible under existing conditions.
What a sad day a giftless Christmas would be!
How badly would all those feel in this time of
stress if they were forgotten by their friends, and
the usual Christmas remembrance did not come!
It is the plain duty of all persons favorably
situated to do their utmost to prevent the loss
of the Christmas spirit at this festive season.
Give! Give! Give!



Shetlanders.

the methods and practices of the Scottish farmer. Not many of his methods have had to be revised. He has possibly learned that much of the money which he has first and last invested in light manures has been wasted; that smaller dressings would have given equally good results, and that some of his methods have been wasteful. But on the other hand these exact experiments have demonstrated that the results of observation in every-day life had led farmers generally to adopt many methods which the most exact inquiry had confirmed as thoroughly sound. This was only what might have been expected. The agriculture of Scotland is in the main the most advanced in the world; the yield of crops is on the whole the best reported throughout the world, and along the line of stock breeding not much can be taught the Scottish farmer by any



Border Leicesters at Home.

of his competitors. This does not mean that there are not in this country plenty of indifferent farmers, men who are losing money all the time, because of their inexact and wasteful methods, men who are spoiling good milk daily by making indifferent cheese, and men who are feeding their stock in ways that so far from leaving a profit are only yielding negative results. But it does mean that progress is now being enforced which should result in the number of such "slack" and level at the average so that the worst

The Home Magazine

PRAYER

O God, who hast made of one blood all nations of men to dwell on all the face of the earth, and Who in Thy Holy Word hast taught us that One is Our Father, even God, and that all we are brethren: We pray Thee in this dark hour of international strife that Thou wilt open the eyes of the people, and those who in Thy Name are entrusted with the authority of governance, to see and understand their right and true relation to Thee, and through Thee to one another. Teach them by Thy Spirit that hatred and violence are not strength, but weakness, that the true safeguarding of a nation is not to be found in weapons of war, but in those eternal principles which make for righteousness and truth, and brotherhood and peace. Give to those who shall suffer in the war which is raging now the consolations of Thy grace. Heal the sick; comfort the wounded; minister to the dying, and bind up the broken heart. Bring, we pray Thee, to a speedy end this international strife; and hasten the time when peace shall flourish out of the earth, and all shall dwell together in unity and love, and war shall be no more. We ask it in the Name of our Saviour Jesus Christ. Amen.

The Prince of Peace

By The Rev. R. W. Norwood

Who is the Prince of Peace? Has He a name? Is the name that of some age-long dream of humanity never to be realized? Now or never let Him come, if He is coming. Now or never let His banner stream across the battle-blackened sky. Now or never let His trumpet shatter the thunder of siege-gun and rifle, until the silence of peace after storm fall upon the world and the hearts of men.

Prince of Peace!—Have we worshipped a fiction all these years, since a band of fishermen went down from the Mount of Olives with a light of joy on their faces and of wonder in their eyes, as of men who had seen the fulfilment of an ancient song: "Lift up your heads, O, ye Gates, and be ye lift up, ye everlasting doors, and the King of Glory shall come in?" Have we, I say, worshipped the creation of a band of mystics, and the conjurings of a horde of fanatics, crazed by their grief for the Lord they had lost? If not, then He is a reality! If He is a reality, then why does He not stand up, as of old He stood upon the floor of the sinking fishing smack, and spoke to the winds and the sea, saying: "Peace, be still"—why does He not speak?

My brothers, He is speaking above the storm, and, if you will listen, you shall hear His voice! The storm is not His fault. He did not raise the tumult, neither are the lightning and the thunder His. He is the yet unacknowledged Prince of Peace, and the storm is of the World-King, His most ancient and malevolent enemy. Let us talk a while about the World-King.

Long ago some crafty politicians of church and state tried to trap the Prince of Peace, and this is what they did: they brought to him a piece of money and said, "Is it lawful to pay tribute to Cæsar or no?" and He replied, "Show me the tribute money"; they brought Him the coin, He turned it over in His hand, and, looking at them, quietly said, "Whose is this image and superscription?" "Cæsar's," was their answer; then the Prince, who knew their mean little scheming hearts, knew that they were trying to make Him walk into their pitfall, silenced and baffled them with this command, "Render unto Cæsar the things that are Cæsar's, and unto God the things that are God's." Now, what did He mean by Cæsar? Cæsar is the name of the World-King, who is also sometimes called—KAISER! This World-King relies on force, and believes that the many should toil for and serve the few; believes that competition is the life of trade; believes that business is business; that the end justifies the means; that my neighbor is the man whom I can best in a deal, and cheat out of a bushel of oats, a bag of meal, a pound of butter, or a dozen of eggs! This is Cæsar or Kaiser, the World-King to whom we have all bowed the head and bent the knee, and, having rendered unto Cæsar the things that are Cæsar's, he has rewarded us with the wages of war!—kind Cæsar!

You see, brother, that it is impossible to serve two masters; so the Prince of Peace is waiting until we get tired of the High Taxer and the payment of his tribute money, and acclaim the Prince of Peace. We have never served the other Master. Let us stop the game of Let's Pretend, and acknowledge the truth: we have never served the other Master! We are all to blame—Pope, Bishop, Priest, Minister, Statesman, King, Prophet, Poet, Businessman, Artizan, Fine Lady, Servant Man, Servant Maid—Rich Man, Poor Man, Beggar Man, Thief—we are all to blame,—we have never served the Prince of Peace! War is the world's wage from the Kaiser, and the image and superscription of him are on all the coins of thought, speech,

action, ambition, and desire. Nay; I do not exaggerate,—I write it down for all the world to see—I challenge the world: Come, O world, and deny what I say! Is it not true that we have all been snobs, tyrants, respecters of persons, jealous, backbiters, calumniators, bigots, ecclesiastics, opportunists, politicians, lobbyists, sectarians, social-setters, caste-lovers, motor-car princelings, and such like?—what a list of adjectives, and the stock is not exhausted by which to find descriptive titles of ourselves. We have been all these and more, because we love the Kaiser, and do not love—

But we have learned a lesson. This awful war is the wage of the World-King, and we hate him, for we now see him as he is! We have followed him from Liege to Louvain. We have seen him taking tribute of women's hands and children's tongues! Do not shudder and draw back from what is written, in your

fine distaste for what is so crudely vivid, for this is your work! The judgment is set, and the books are opened—read!

Yea, let us stop this game of Let's Pretend. Here is the truth—the whole truth—and nothing but the truth! Mankind's inhumanity to man has been wailed and lamented through the ages by our prophet-voices, and now the result is seen. Let us go down on our knees this day to the Prince of Peace and say: "Lord, when saw we Thee and hungered, or athirst, or a stranger, or naked, or sick, or in prison, and did not minister unto Thee?" that we may hear Him say in sorrow for what we men have missed, "Inasmuch as ye did it not unto one of the least of these, ye did it not unto Me."

Do you know that this is the real Day of Judgment? Do you not know that this is the end of the Age, and that a new one is at hand? The Age of the World-

King is ended, and the new Age of the Prince of Peace is at hand. This must be the last war. Let hate die, and have no resurrection. Let fall the political, ecclesiastical Tower of Babel, and make way for the City in the sky, coming down from God out of heaven—prepared as a bride adorned for her husband.

Ring out false pride in place and blood, The civic slander and the spite, Ring in the love of truth and right, Ring in the common love of good.

Ring out old shapes of foul disease; Ring out the narrowing lust of gold; Ring out the thousand wars of old, Ring in the thousand years of peace.

Ring in the valiant man and free, The larger heart, the kindlier hand; Ring out the darkness of the land, Ring in the Christ that is to be.

The Prince of Peace is standing by His throne, and the hand of brotherhood is the only hand that He will accept as the sign of the world's will that He should reign in the place of Cæsar. The hand of brotherhood—your hand—my hand—in the hand of our neighbor! Cross the field that separates your land from his land, knock at the door of his house and say unto Him: "Brother, I greet you in the name of the Prince of Peace."

Browsings Among Books.

[From "Dreamthorpe," by Alexander Smith. Written 1862.]

From the sermon I have returned like the others, and it is my purpose to hold Christmas alone. I have no one with me at table, and my own thoughts must be my Christmas guests. Sitting here, it is pleasant to think how much kindly feeling exists this present night in England. By imagination I can taste of every table, pledge every toast, silently join in every roar of merriment. I become a sort of universal guest. With what propriety is this jovial season placed amid dismal December rains and snows! How one pities the unhappy Australians, with whom everything is turned topsy-turvy, and who hold Christmas at midsummer! The face of Christmas glows all the brighter for the cold. The heart warms as the frost increases. Estrangements which have embittered the whole year, melt in to-night's hospitable smile. There are warmer hand-shakings on this night than during the bypast twelve months. Friend lives in the mind of friend. There is more charity at this time than at any other. You get up at midnight and toss your spare coppers to the half-benumbed musicians whiffing beneath your windows, although at any other time you would consider their performance a nuisance, and call angrily for the police. Poverty, and scanty clothing, and fireless grates, come home at this season to the bosoms of the rich, and they give of their abundance. The very red-breast of the woods enjoys his Christmas feast. Good feeling incarnates itself in plum-pudding. The Master's words, "The poor ye have always with you," wear at this time a deep significance. For at least one night on each year over all Christendom there is brotherhood. And good men, sitting amongst their families, or by a solitary fire like me, when they remember the light that shone over the poor clow huddling on the Bethlehem plains eighteen hundred years ago, the apparition of shining angels overhead, the song, "Peace on earth and good will toward men," which for the first time hallowed the midnight air,—pray for that strain's fulfilment, that battle and strife may vex the nations no more, that not only on Christmas eve, but the whole year round, men shall be brethren, owning one Father in heaven.



The Christ.

From Leonardo da Vinci's study for his famous painting, "The Last Supper."

Brotherhood.

We pray
That all mankind may make one brotherhood,
And love and serve each other; that all wars
And feuds descend of nations,
Let every race,
Red, black, or white, olive or tawny skinned,
Settle in peace and awe the gathering hosts
Of the great Prince of Peace, let every hour
Bring down from the sky
The mercy-seed of truth, the heritage
Of Christ, and the possession of the Spirit,
The love, the truth, the wisdom, shall all be
One faith, one hope, one faith, one law,
Its end to be, its practice righteousness,
Its life, peace.

—Philip J. Bailey.

The Question :

"How long, O Lord, how long before Thou come again? Still in cellar, and in garret, and on moorland dreary The orphans moan, the widows weep, and poor men toil in vain, Till the earth is sick of hope deferred, though Christmas bells be cheery."

The Answer :

"Blind! I live, I love, I reign; and all the nations through With the thunder of My judgments even now are ringing; Do thou fulfil thy work but as yon wild fowl do, Thou wilt heed no less the wailing, yet hear through it angels singing."

How often lately we have heard people say: "We can't have a real Christmas this year, when everyone is feeling so sad. How can we talk of peace and goodwill when Christians are fiercely killing one another?"

It is possible that in our years of prosperity we have gained a mistaken conception of the meaning of the Christmas Feast. It has become a time of earthly gaiety, a time of feasting and merrymaking, a time of excitement and noisy fun. Santa Claus has been the ruler of the feast. His jolly face peeped at us from Christmas seals, advertisements, and cards. Children have addressed their petitions to him, with unshaken faith in his power and willingness to satisfy all their wishes. We have called the day after Christ; but has His Birthday taken anything like the first place in our thoughts, as we have enthusiastically celebrated the joyous season?

Is it true that we can't have a real Christmas this year? It may be that true Christians, all the world over, will this year follow the wise men more closely than ever before. They searched earnestly until they found the King. Their purpose was not to gain advantage for themselves (as children ask Santa Claus for toys), but to present

Hope's Quiet Hour.

Where is the King?

There came wise men saying, Where is He that is born King of the Jews?—S. Matt. ii: 2.

unto Him their gifts. Seeking, in that spirit of love and faith, they overcame all obstacles and found the King—as we shall do, if we seek in the same spirit.

The Christmas message of "peace and goodwill" can only reach its world-fulfillment through individuals. If we are to help forward the world-empire of righteousness, peace and brotherliness—the kingdom of the Prince of Peace here on earth—it must be by individually serving Him as our Master.

It is nearly two thousand years since the angels rejoiced over the glad tidings of great joy, the peace and goodwill which should come to all people through a Child then lying helplessly in a rough manger. The prophecy seemed almost impossible of fulfillment on the first Christmas Day. The infant King was entirely without earthly signs of kingship. But He might rise to a position of great power, as Napoleon afterwards did—time would tell.

Years slipped away, and again that title—"The King"—was bestowed on JESUS. Did He, then, outstrip other men in the race for earthly honors? See how unlike an earthly king He looks, as He hangs bleeding and despised on the Cross of shame! The title of "King" is his "accusation," not a proof of human homage. The message of the angels, the faith of the wise men—how mistaken they seem! The Hope of the world is executed and helplessly submits. How can He save others when He has entirely failed to save Himself? So the men who had trusted in Him thought. Their Sun had gone down in a thick darkness, wrong seemed to have overcome right. Love seemed helpless in the battle against hate.

We know that this apparent defeat was not the end. Century after century has

seen the earthly empire of the King extending its boundaries. Country after country has bowed to His authority. His ideals of peace and goodwill have leavened the world, until even professedly non-Christian nations have learned that peace is better and nobler than war, that kindness pays better in the end than oppression and cruelty. These ideals may not yet have become changed into everyday action, but it is owing to Christianity that they are accepted as ideals to be striven after. The laws imposed on great nations by The Hague Convention prove that the King of Love exerts mighty power in this turbulent world of ours.

If the disciples, on Easter Day, found that their Good Friday despair had been a mistake, we have no need of hopelessness in the midst of to-day's dark sadness. Our King has proved His power over untold millions of men. He has inspired countless deeds of kindness, has cheered countless sufferers, and has taught the world to care for the sick and helpless. Go wherever you will—yes, even where men have been killing their fellows by the hundreds and thousands—and you will find subjects of our King helping those in need, patiently enduring pain, or dying in hope of drawing nearer to Him.

We may not spend Christmas this year in our usual gay fashion. The common greeting, "Merry Christmas!" may sound forced and unreal, when it is not hushed entirely; and yet this Christmas may draw us nearer to our King than any we have known in the past.

What is Christmas for? What did our Master come into this world to do? It certainly was not to have an easy and pleasant time. The peace of Christmas—the peace promised by angels and

ratified by the King Himself—is not a peace of selfish ease and luxury. It is found by those who are seeking the King and presenting to Him their gifts.

We try to make a friend happy when we celebrate his birthday. Let us this year set ourselves, with earnest purpose, to give real joy to our Friend on His Birthday. He cannot rejoice over presents which are given half-heartedly.

Let us consecrate our gifts this year, not only those offered to Christ through His poor but family gifts as well. When the packages are daintily wrapped, or when we are choosing or making some "surprises" for earthly friends, let us kneel at the feet of our Lord and place our gifts reverently in His outstretched hands. Let us look up into His face, watching for the look of joy with which He will accept any offering which expresses real goodwill and thoughtful kindness; then we can take the gifts from His hand again and act as His steward in distributing them.

Year after year more people are finding the King—after long and patient search—and they carry the good tidings into many lands. As a result, the world knows at last the value of peace and brotherliness. We are fighting for peace, fighting for the right and privilege of clasping hands in a world-circle of fellowship and goodwill. Fiske says: "The feelings and habits adapted to ages of strife will ultimately perish from disuse; and a high stage of civilization will be reached in which human sympathy shall be all in all, and the spirit of Christ shall reign supreme throughout the length and breadth of the earth."

Perhaps you may say, "It doesn't look much like a world-dominion of peace and goodwill just now." I can't deny that; but neither did it look as if "JESUS crucified" would ever be the acknowledged Lord of great earthly empires. The wise men bowed down before a little helpless Child, though there was no outward sign of any greatness in Him. They found the King, after patient searching, but they needed great faith in order to recognize Him in His strange

(Continued on page 2126.)



When Peace Reigns. In the Dyke Country, Western Europe.

University Extension and what it means to the people

By Mary Burchard Orvis

[It is to be hoped that every farmer and every educationist in Canada will read the following article by Miss Orvis. Something towards university extension work has already been done in Canada, and it is not too much to expect that in the not-far-off future every Province of the Dominion may be possessed of a service in this respect equal in efficiency to that so splendidly demonstrated by the State of Wisconsin. We can learn much from our neighbors. It will be to our credit if we accept as freely as we give anything that may tend to the advancement and uplift of the great masses of the people, and we will look far before we find any movement that has done more, at least for the rural populace within the sphere of its influence, than the extension service of the great University of the city of Madison.—Ed.]

Why is the University of Wisconsin more widely known than the other State universities? Simply because it has realized, to a greater extent than any other university, the aim of public service. And public service means something more than the instruction of the fortunate few who can spend the time and money necessary to secure what is commonly called "a university education." It is coming in the United States to mean the extension of the university's resources in scholarly men, laboratories and libraries, to the people who are busy making a living in the fields, factories and stores.

England gave the world the idea of university extension, but the State of Wisconsin was the first commonwealth to give a demonstration of its democratic possibilities. Beginning modestly in 1906 with a correspondence Study Department, the Extension Division of Wisconsin has grown until there is not a community of any size in the State that has not its pupils enrolled in this extramural college; not a village or a city that has not benefited by its broad educational policy. A spot map to be used in a "University Exposition" to take place in Madison in February, will show that last year there were 6,313 students throughout the State taking correspondence courses; that 2,829 "package libraries" containing over 113,000 articles on 1,030 different subjects were lent to 347 different communities; that 847 lectures and entertainments were attended by about 156,000 people; that the General Information and Welfare Department held 7 community institutes; and helped in the opening of 278 schools for social center purposes.

All these facts are to be shown by the little colored lights which will illuminate the map of the State, even as the university itself brings light into the lives of thousands who never enter its doors.

"LONG DISTANCE INSTRUCTION."

"A place where any person may find instruction in any study," is what the Extension Division has been called; and rightly. The citizen of Wisconsin, whether he lives in a metropolis or on a pine clearing at the shore of Lake Superior, can receive a lesson by mail, study it at home, drop his recitation paper in the mail box, and receive in its correction the personal attention of the most learned professor in the university. When the first corrected paper comes, back, it brings marginal corrections and comments, often a letter of personal encouragement, and also the next assignment. Work done in this way may be credited to the student toward a university degree, but it is significant of the purpose of this institution, that the great majority of students enter into the work merely for self-improvement, with no thought of obtaining a diploma.

The range of subjects offered is almost as great as that offered to resident students. The man on the farm may take up a purely cultural course and re-

ceive a degree for his work, or he may study bacteriology as related to his milk supply, farm surveying (for which instruments will be lent him) or farm accounting. His wife may study French and English literature, or she may learn how to plan the family dietary, and how to prepare food economically and for the best health of all. She may take a course in history, or she may study dressmaking and submit, each week, a sample of her work as a part of her lesson. If she is an expectant mother, she can learn not only how to take proper care of herself, but how to care for her child in the different stages of its development.

The business man can inform himself on the larger problems of government, or he can study accounting, advertising or banking. One of the largest bonding companies of New York pays the fees for its employees in order that they may study commercial correspondence, and writes to the Secretary of the Wisconsin Correspondence Study Department—"even if the courses were never completed, we would consider that we had had ample return for the \$10 already paid in."

The demands for help come from all sorts of people, from all walks of life. A merchant writes from a small town, "My wife, as President of the Women's Club, received printed matter that I looked over and in which I became interested. I left school to work at the age of fourteen; my schooling was

recommended to me as a well-equipped institution of learning."

The list of occupations sending correspondence students to the university includes practically all those listed in the census from the blacksmith, baker and barber, to the waiter, watchman and welfare manager. They come from the ranks of the apprentice and from those of chief engineer, and all the ranks in between.

How are these people interested? If they do not seek the university, it seeks them. The instructor goes to an employer, let us say a retail merchant, and asks permission to organize classes in retail salesmanship among his employees. Usually the employer is easily persuaded not only to allow the classes to be held in his store, but on his time. The doctrine of efficiency has seized the American employer and he is fast realizing that an educated workman is a better workman, more worthy of his hire. So it has become quite the common thing for the employees in some bank, store or factory to gather in their place of work two or three evenings a week, or even during working hours, and listen to the university lecturer. It takes some grit and ambition to deliberately go back to work nights, after a long day; but there are hundreds of young men and women doing it—and some not so

the need of a better education more keenly now than ever before.

The difficulty of getting the necessary personal contact between the boy or girl on the distant farm and the university professor at Madison, is not so great as might be thought. A personal note written to the teacher of Latin, shows something of the extent to which this difficulty is overcome.

"To say that I have enjoyed this work doesn't express my feelings in regard to it; not only have I enjoyed the Latin; my ideas as to the reality of Old Age have been entirely changed—and been broadened. It has done me much good. As to your part in the work this is more important, since you have been so kind and human. I have felt that you were really interested, and without that feeling I could never have pulled through the course so far. You have been a source of inspiration and help to me, which will not be forgotten when this course is over."

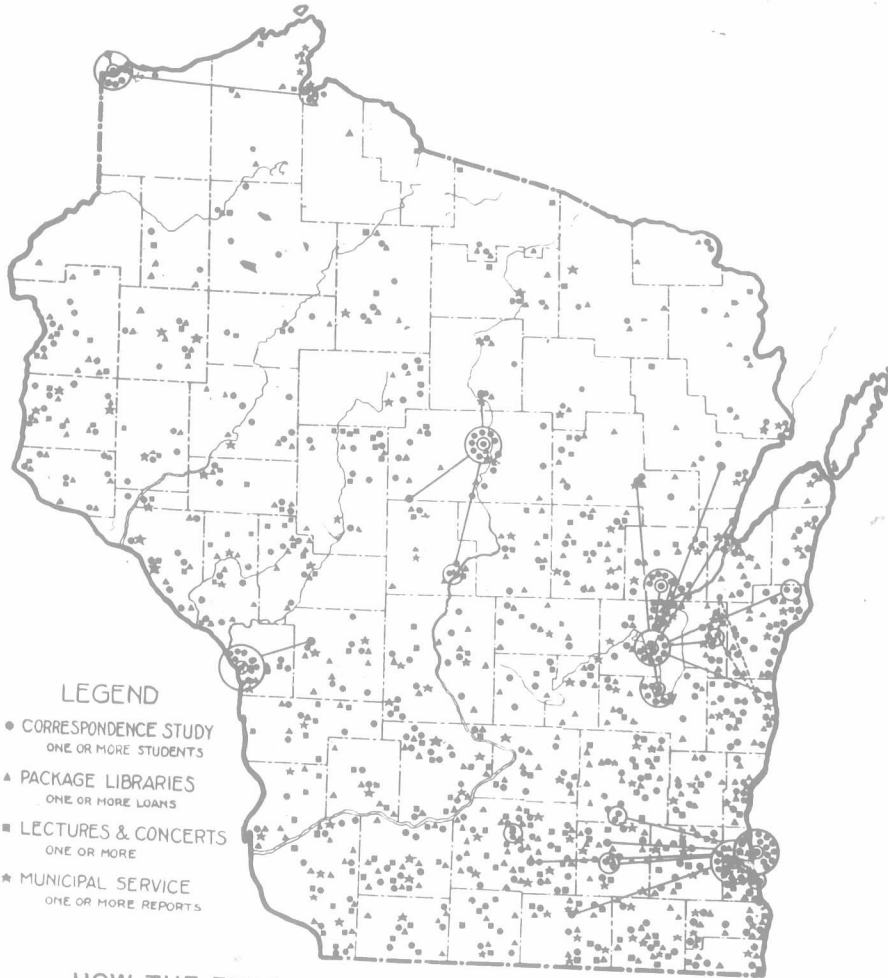
There seems to be plenty of personal contact, even though it is on paper. More actual contact is secured for many by the use of six branch offices, really miniature universities, which are scattered through the State, supplying centres where local instructors may meet classes of correspondence students; and where they can study local needs and report opportunities for greater service. In the school year 1912-13, 1,322 students attended these district classes, while study club groups were formed in 29 different cities.

THE EXTENSION OF AGRICULTURAL KNOWLEDGE.

The Wisconsin College of Agriculture still continues the extension services out of which the residence instruction grew. Created by the demand for scientific agricultural training, it gives a four-year residence course, a two-year course, a short course designed for the farm boy who cannot leave home until the fall crops are gathered, and a ten-day course for farmers and farm women. But even before it was established as a regular college of the university, it was giving a service to the farmer on the farm that is largely responsible for much of Wisconsin's prosperity. Though it does not give regular correspondence courses in agricultural subjects, its experts write thousands of letters of specific information each month, and annually distribute over 300,000 bulletins on different phases of Wisconsin farming. It runs demonstration trains in co-operation with the various railroads of the State; and last year conducted 130 two-day Farmers' Institutes, and 23 ten-day courses, throughout the State. Acting jointly with the different counties, the State College supplies especially trained men to advise farmers during the growing season, and to give short courses in agriculture during the winter. In spite of all they received in the way of agricultural knowledge without leaving their farms or their farm neighborhoods, 2,000 farm men and women, from 60 different counties attended the ten-day course at the university in the winter of 1913.

So impressed were some of the farmers in far off Dakota with the work that is being done for the farmers of Wisconsin, that they sent a special expedition down to Madison to study the influence of the University on the economic conditions of the country. As a result of that trip, they took back with them thousands of dollars worth of pure-bred cattle—which fact shows that this kind of education pays in more than one direction. It costs the farmers of Wisconsin money to support the state university, but that same university puts a vast amount of money back into their pockets.

Take the matter of pure-bred seeds.



HOW THE EXTENSION SERVICE COVERS THE STATE

This service has been greatly enlarged during the past two years. The map was made in 1912.

limited. For twenty-five years I have run a general store with some success, but I feel the lack of education. What could I take up to help me along in my business and give me a better education? I am forty-five years old."

A would-be farmer in Chicago writes that he hopes to start off soon in being a "full-fledged farmer" and thanks the Secretary of the Extension Division for his help, adding, "I do not wonder why the University of Wisconsin was

young. Nevertheless, most of them seem to feel that it pays.

A young bookkeeper who never "got beyond the eighth grade" writes that the courses he is taking are "just what he needs," and adds that the change in his position to credit manager, while taking much time formerly devoted to correspondence study, has resulted in a salary increase of from \$900 to \$1,500 a year. But he intends to complete the courses undertaken "and more too," for he feels

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Last year schools, 129 centers, 43 ru 27 teacher's churches borro tions of mate were aided gre a Farmer's C how to organi constitution, r gested subjects The compara ferent subjects

By placing small quantities of improved seeds with the members of the Wisconsin Experiment Association, a body composed of over 1,500 short course graduates, the university is sowing the State with seeds especially adapted to its widely different soils and climates. As a result, the corn belt, which was formerly considered to be at the southern boundary of the State, has been pushed to the shores of Lake Superior. Number 7 corn, in a five-year test conducted by the 1,500 members of the association gave an average yield of 32½ bushels per acre, or an increase of 12 bushels over any corn ever raised previously in the State. Likewise, the university's Select Oderbrucker barley yielded 4.9 more bushels per acre than the best varieties grown in the past by unscientific farmers.

So it has been with dairying. The discovery of the celebrated "Babcock test," which Prof. Babcock refused to patent and gave to the farmers of the world, has furnished a simple means of paying for milk on the basis of quality and has enabled the farmer to weed out all "boarders" from his herds. This invention and other university-developed tests and methods have been advertised and demonstrated by the university so that they have come into wide use, and have placed Wisconsin first among the United States to-day in the production of both butter and cheese. Her annual dairy output amounts to the tremendous sum of \$80,000,000.

THE "PACKAGE LIBRARY."

These are a few of the ways in which the University of Wisconsin has helped her farmers to a greater material wealth. She is also doing much to aid them in securing an intellectual wealth; to make them better citizens. The promotion of debating and public discussion in both urban and rural districts, was one of the first things that the university undertook when it began its extension work. Business men's Clubs and Farmer's Clubs, to say nothing of legislators in the capital, have turned to the university for aid in their discussions, and they have found that its bulletins and its "Package Libraries" have given the authoritative and unprejudiced information necessary.

Legislatures, composed chiefly of farmers, have passed year after year, laws that have given Wisconsin the reputation of being the "best governed State in the Union." She was among the first to establish a rate commission that really served the people; a tax commission which taxed the roads according to their physical valuation; an efficient insurance commission that closely guarded the interests of policy holders; an industrial commission which has brought a greater measure of safety and justice to the workingman; a Primary Election Law, a Corrupt Practices Law, a Legislative Reference Bureau, a Free Circulating Library System, and a thousand and one other measures designed for the welfare of the greatest number of people.

All these facts go to show a high level of average intelligence. Yet Wisconsin is a State of many nationalities, Germans, Scandinavians, and Slavs. In the assimilation of all these people and the formation of the wide-awake public opinion, the little "package library" has played no negligible role. Organized for the inspiration and assistance of debating clubs in the schools and civic leagues, it has gone into the northern lumber camps, the city clubs, and the country schools, with its message of better citizenship. From the largest city High School to the smallest rural center, there is hardly an organization devoted to debating which does not make use of the "package" of authoritative books, reports, pamphlets, bulletins and newspaper and magazine clippings, which the university has in its collection of 5,000 "libraries."

Last year 607 public libraries, 422 schools, 129 women's clubs, 62 social centers, 43 rural clubs, 38 men's clubs, 27 teacher's associations, and 16 churches borrowed these compact collections of material. The farmers' clubs were aided greatly by the publication of a Farmer's Club Bulletin, which told how to organize clubs, gave a sample constitution, rules of order, and suggested subjects for discussion.

The comparative popularity of the different subjects for discussion furnishes a

most interesting key to the trend of public interest. The use of 143 libraries on woman suffrage (the leading "library") testifies to the interest in a cause which was defeated by a referendum vote in 1912. Seventy calls for information on Home Economics and Domestic Science, speak well for the awakening of woman as to her home responsibilities.

Interest in national questions was shown in the demand last year for 120 "libraries" on immigration; 104 on the Panama Canal and its tolls; 53 on the

fore when the income tax had just been adopted.) State aid for good roads aroused interest to the extent of 23 calls for libraries.

Thus the "package library" of Wisconsin both reflects the trend of public interest and aids in the stimulation of that interest. When it is remembered that, as a rule, each library is a subject of group discussion, it becomes evident that here is no mean instrument of education. That it is a non-partisan, unprejudiced instrument is proved by the fact that the university, always under a

versities. The work has been greatly expanded at Wisconsin, where the university also arranges lectures and entertainments by non-faculty people. The deterioration of the once popular Chautauqua platform in the Middle West and the introduction of much mediocre "talent" into the village lecture course, have created a demand for the university-booked speaker or musician, who is routed in the most economical way by the University Lecture Department. Thus it is that the people of the small town are enabled to secure "attractions" that would be utterly impossible if booked by the commercial lyceum bureau for the sole purpose of making money. Orchestral groups from the great city symphonies, musical artists and speakers of national reputation are brought into communities which, without this service, would be doomed to endure third rate entertainments of the minstrel and magician order.

FOSTERING THE "GET-TOGETHER" SPIRIT.

In order that the people of the State might have some place to which they might come for information on matters concerning their public interests, the Department of General Information and Welfare was established at the University. This department deals with community, rather than individual problems.

If a certain town is discussing a new form of government, or the installation of a water-works system, or a sewage system, or what not, its engineers and officers may write down to the university and receive expert advice free. The man in charge of the Municipal Reference Bureau will either supply the necessary information or he will put the city in touch with some member of the faculty who can. If necessary, he will send that expert to look over the actual ground and make suggestions.

PROMOTING THE COMMUNITY HEALTH.

If the Board of Health or the doctors of some distant place want aid in fighting some epidemic of disease, they need only call upon the Health Information Department of the University. The State's bacteriologists made last year, nearly 6,500 free examinations for the discovery of tuberculosis, diphtheria, rabies, anthrax, etc. The man in the laboratory can take a single drop of blood, sent any distance, and tell within a few hours whether or not the person from whom it has been obtained is suffering with typhoid. Free typhoid



How the University Comes to the People.

Fair held in the town of Windsor, Wis., as a result of the opening of a social center.

Mexican question; 51 on conservation; 48 on government ownership of railroads; 43 on international peace; 34 on the tariff; 29 on the increase of the navy.

The last Wisconsin legislature enacted a Minimum Wage Law, leaving the details to the Industrial Commission, and, forthwith, there was a demand for 64 "libraries" on that subject. Many cities took up the discussion of Commission Government, and 60 packages of material went out to aid them. A law providing for the opening of school houses for public discussion brought into use 45 libraries on "the school as a social center." A compulsory industrial education law brought out 41 on the subject of vocational training. Thirty-four calls came for material on the income tax (a falling off of 90 from the number asked the year be-

fore when the income tax had just been adopted.) State aid for good roads aroused interest to the extent of 23 calls for libraries. Thus the "package library" of Wisconsin both reflects the trend of public interest and aids in the stimulation of that interest. When it is remembered that, as a rule, each library is a subject of group discussion, it becomes evident that here is no mean instrument of education. That it is a non-partisan, unprejudiced instrument is proved by the fact that the university, always under a

INSTRUCTION BY LECTURES.

Instruction by lectures was one of the first forms of university extension to be introduced into America. This arrangement, by which the members of the faculty go out to various parts of the State and lecture upon their specialties, has long been in vogue at various uni-



How the University Comes to the People.

The University Demonstrator presenting the advantages of pure-bred seeds to farmers who have gathered at the County Poor Farm.

vaccine is also distributed to all the physicians of the State.

Last year the State Hygienic Laboratory, which co-operates with the Bureau of Health Information, was consulted by 1,855 health officers and doctors, in over 580 different communities. (Think what this means to the health of the State! The State's free weekly Health Information Bulletin was subscribed to by 350 newspapers.) By correspondence, press service, health bulletins, and health exhibits, the university seeks to apply the medical knowledge of the world, and to make it the property of the average person. In the field of medicine, the work of education is greatly facilitated by the use of the moving picture machine and the stereoptical lantern.

(Continued on page 2126.)

"Little Belgium".

"If I lose myself I find myself," said Sir Galahad, and in a sad sense the words come to one in thinking of "Little Belgium." A year ago who knew her save as a prosperous if somewhat obscure state on the west of Europe? To-day the world rings with the story of her prowess, the self-sacrifice of her king, the awfulness of her suffering,—for what nation has ever suffered, within the space of a few short weeks, as has "Little Catholic Belgium"? Like Winkelried she has gathered the spears of the invader to her bosom.—Have come the shock, the check, the terrible toll! She stands crippled and maimed. Crippled and maimed?—yes, almost destroyed, yet never faltering. As a famous cartoonist has pictured her, she stumbles, submerged beneath a debris of ruins, yet still raises a heroic arm that waves defiantly, even victoriously, the tattered flag of Belgium.

And the end is not yet. What the future of Belgium will be no one can at this day prophesy, and yet, for suffering such as hers—for a principle—there must be some day, somehow, compensation.

"Oh yet we hope that somehow good
Will be the final goal of ill."

Were it not for that hope, which clings divinely, whatever betide, in the hearts of men, then, in this terrible catastrophe that has come upon Belgium, in this awful cataclysm that has fallen upon Europe, must be naught but horror and utter despair.

But this is the Christmastide. Let the crape slip from off the bells. Let no muffled tones ring out, but, clear and sweet, the glad heralding, "Peace on Earth, Good-will to Men!" In Germany, ere this, has that divine song been sung, year upon year,—in France, in England, in vast Russia, in little Belgium. What has been the matter with us, Christian nations—brotherhood—that we have ever permitted conditions to arise that demand blood for satisfaction, war for peace? We have not, perhaps, failed in our concept of Christianity, but surely we have failed in the practice of it. Intellectually we have accepted it: we have not let it take possession of our hearts. And so, as the bells ring out on this anniversary of the birth of the Prince of Peace, may we hope that they augur a new era for humanity. It may have taken this utter horror to make us feel. Henceforth more of us may not only lightly accept as an aesthetically beautiful thing, the message of the angels nineteen hundred years ago, but may also feel and do. Thus the brotherhood of man may tend to become something more than a whisper that dies on the air.

BELGIUM BEFORE THE WAR.

The visitor going to Belgium before the War (strange that in our time this War, above all others, must be written with a capital letter!) was charmed beyond words by the quaint beauty of the country:—great sea-walls shutting out the sea and sheltering golf links and summer resorts behind them; beyond a flat country tilled like a garden and intersected with canals, every foot of ground yielding its fullest quota of grain and vegetables; huge windmills, as in Holland; ever and anon towns quaint

and brown, with red-roofed houses:—Antwerp with its fortifications and its sea of masts and smokestacks reaching up to its very threshold; Bruges with its "belfry"; Liege with its extensive manufactories; Louvain, quaint seat of learning; Ypres, and Dixmude and Nieuport and Ghent. How familiar, how distressingly familiar to us to-day are the names of them all!

It's but a short step across the water from England to Belgium, and yet what a startling difference:—the architecture

one, for, almost to a man, the Belgians belong to the Church of Rome.

A simple folk have been the masses of Belgium, loving their church, loving their homes, loving their labor. If their houses were, for the most part, unpretentious, and their lands small, there was but little poverty, for intensive culture, among them, has been carried on so very intensively, that every foot of land outside of the rough, mountainous iron district, has been made to yield immeasurably more than the

them. The Flemish peasant, or proprietor, labors all day, and his day is the long one from sunrise until well after sunset. Anyone who has lived in the Belgian provinces has seen grey figures moving along the roads or across the fields, while gleams of light alone showed the dawn of the coming day.—They wish to be at their work as soon as there is sufficient light to enable them to resume it. They are working for themselves, and very likely they would grumble if they were asked to do it for a master."

Speaking of the "thrift" of the Belgian—particularly the Flanders—farmers, who are great vegetarians, the writer continues: "The average amount of the produce of the land has been reckoned at 500 francs, or 20 pounds the half-acre. On this sum a Flemish family will continue to live, having no rent to pay, and supplementing the produce of the field with a pig and poultry. There are 650,000 men and boys employed in agriculture alone."

The workaday costume of the people is dun and gray enough,—sabots or "wooden shoes" everywhere. But behold on Sunday, the same people going to mass! "All the men wear respectable black suits and boots; the women are well dressed and carry themselves well, and there are bright-colored parasols to protect from the sun the girls and women who have been toiling in the fields all week with no protection save a linen hood. It is difficult to realize that these are the same people, but it is quite clear from their animated conversation and laughter that they are far from unhappy or dissatisfied with their lot." . . . The Walloons, it may be here noted, do not work as hard as the Flemish. In their country is to be found—or was to be found before the War—a greater number of extensive land owners, with fine modern houses of glaring brick or stone, somewhat crude in contrast with the mellow and dignified old Chateaux still to be found among the hills that run off to the Ardennes.

AMONG THE CITIES.

It is the cities of Belgium, however, that have proved most interesting to the tourist, and drawn thither every summer, a swarm of artists,—the quaint old cities with their old-world architecture, their fine cathedrals, their many-colored houses, here mellowed into soft blending, there startling in new paint.

Of them all, Bruges, perhaps, has best preserved her ancient grandeur, and the tourist, in wandering about her streets, has been glad to find, here part of the old walls, there the "belfry old and brown" made famous by Longfellow's poem, and yet there the famous cathedral that witnessed the installation of the Knights of the Golden Fleece.

Turning aside, too, to the Place du Bourge, he might, perchance, find the "Chapelle du Saint-Sang," the "chapel of the Holy Blood," the holy of holies in the religious life of Bruges. The holy of holies—and little wonder, for here in a costly shrine decorated with gold, and silver, and precious stones, has been kept one of the most wonderful relics in Europe, brought home from Palestine in the time of the Crusaders by Thierry d'Alsace, Count of Flanders.

Thierry, so the story goes, married Sybilla, sister of Baldwin, King of Jerusalem, and when he was returning after the second Crusade, in 1148, the King and the Patriarch resolved to reward him for his valiant deeds by giving him a portion of the most holy relic in Jerusalem, a reddish liquid believed to be blood and water which Joseph of Arimathea had preserved after washing the body of Jesus. Kneeling on the steps of the altar of the Church of the Holy Sepulchre, on Christmas of that year, Thierry received the vial, but, deeming that his hands, which had shed so much blood, were not worthy to carry it, he gave it over to Leonius, chaplain of the Flemish army, who brought it round his neck on a chain. In May 1150, Thierry and Leonius made a triumphal entry into Bruges, Thierry on a white horse led by two barefooted monks, and carrying the relic in his hand. With much ceremony it was placed in the chapel since known as the Chapel of the Sacred Blood, and ever since then the spot has been the Mecca of a host of pilgrims, especially on the first Monday after the second of May,



Before the War.
An old farmer, Belgium.

different; the character of the country, the dress of the peasantry, even the speech of the people,—not one speech, but two, for one of the striking facts in the national life of the Southern Netherlands has been that within it the Walloons, akin to the people of ancient Gaul, have clung to the French language, while the Flemings, comprising the German element, have kept to the Flemish, a species of German dialect. In religion, however, the peoples have been

same extent here. "Thrift is the national virtue," said an observer, in writing of these people last year. And not only thrift, it would appear, but a capacity for cheerful labor. "The conditions of life among the agricultural classes of Flanders," says Boulger, in his book on the Belgians, "would be considered intolerably hard by the agricultural laborer in England, and even the sense of possessing the land on which they toil would not atone for



Street Scene in Bruges Before the War.

Does have been much used for domestic work in Belgium, and the "milk-cart dogs" have been a feature of the city. They are large, powerful, and well fed.



A Flemish Country Girl.

"No one can reside any time in Belgium without forming a very high opinion of its women, of their thrift, cleanliness, and capacity for work."—Boulger.

each year, when the vial is taken at the end of a great procession to the Cathedral of St. Saviour, the crowds of people along the way sinking to the ground and kneeling as it passes. It would be interesting to know just where, to-day, that small vial is, for it is to be imagined that so holy a relic would not be left in its place on the advance of the Germans into Bruges.

In passing it may be remarked that legend tells of two miracles in connection with the relic of the Sacred Blood. After a time the liquid was found to be dry, but was said to become liquid every Friday at six o'clock. This occurred regularly up to the year 1325, but since then it has been observed only once, that in 1388, when the vial containing the blood was being transferred to a new crystal tube. "On this occasion," says Omond, "William, Bishop of Aricon, was astonished to see the relic turning redder than usual, and some drops, as of newly-shed blood, flowing within the vial, which he was holding in his hand. Many notable persons who were present, one of them the Bishop of Lincoln, testified to this event."

Until the War there were four universities in Belgium, in Liege, Ghent, Brussels and Louvain, with a School of Mining at Mons.

In the country of the Walloons, Liege, noted for its iron industries, has been the central point, surrounded by a country so picturesquely rugged that the railway passing from it into Prussia takes its way through twenty-five tunnels in as many miles. "Liege is a fortified position of the greatest importance," says Boulger, "because it stands in the path of any army advancing from Germany,"—words that to-day seem almost ludicrous, although written so short a time ago, for since then the "German surprise," the great 16-inch Howitzers, have been able to render fortifications of to-day as obsolete as the device of the wooden horse at the

siege of Troy. The forts of Namur and Liege, by the way, were erected at a cost of £4,000,000. Namur also has fallen, and Antwerp, pride of Belgium,—but the Belgians still fight on.

Few cities have had a more eventful history than Antwerp, which, despite its peaceful name, which means "on the wharf," has been through half a dozen wars and many sieges. The Northmen, then later the Spaniards, both made it the scene of hideous welters of blood. Napoleon set covetous eyes upon it as a base against England. In 1830 Chasse's guns thundered without its gates, and now again, in 1914 it has been battered by war. But it is well to know that it has not suffered destruction as has Louvain. Its cathedral still stands, and the museum, with their priceless collections of paintings by Rubens, and the Antwerp artists, Tenier, Jordaens, and Vandyck. Antwerp, it may be noted, although reached daily by ocean-going vessels before traffic was interfered with by the war, stands some distance up the Scheldt, along which Holland owns the land. Should Germany decide to respect the neutrality of that country it is difficult to see of what great use the acquisition of this "port" can be to her.

Courtrai, near which the famous Battle of the Golden Spurs was fought in 1302; Nieuport, the "new port" in whose vicinity the "Battle of the Dunes" was fought between Spaniards and Dutch in 1680; and Ypres, with its magnificent Halle des Drapiers, which took one hundred years to build, are all familiar names now, even to us of the new world. . . . "That is what the Ypres of to-day is like," says Boulger, "a sleepy town, with clean, well-kept streets, dull and uninteresting save for the stately Cloth Hall, which stands there a silent memorial of the past." . . . But a short time and Ypres "saw another sight." It was one of the first places in which the British came into conflict with the enemy. "The British fire at Ypres," wrote the Times correspondent toward the end of October,

"after a glorious stand for five days against overwhelming odds drove the enemy back fifteen miles. The German forces were commanded by the Bavarian Crown Prince, who, it is reported, has been wounded. The British forces captured Langemarck, five miles northeast of Ypres, on Friday after inflicting enormous losses on the enemy, and established entrenched positions beyond the village.

"At night, after the roar of the cannon had ceased, there was suddenly a shrill whistle and bushes soaked in petroleum broke into flames, throwing a glare over the scene. Masses of men sprang up from the beet crops within a few hundred yards of our trenches, and with bugle sound, yell and song they came dashing forward to our position.

"Though taken by surprise, our brave men were not unprepared. They took their places in the trenches and held them, pouring a terrific fire into the advancing hosts.

"Answering with rifle and machine gun the enemy advanced, still with the bugle playing and amid shouts of 'Hoch! Hoch!' They were in dense masses and they fell by the hundreds. They got within thirty yards of the trenches when they recoiled.

"Then came three blasts of a whistle, sounding the retreat. Our men sprang out of the trenches and went in among them with the bayonet. The slaughter was terrible, and there were many hand-to-hand encounters.

"In the dim glare of the burning bushes some of the enemy threw down their arms and pleaded for mercy. No quarter, however, was given on either side. The work was too desperate for that. Bayonet and bullet did their work, and the enemy was driven back on Roulers.

"A battery and several machine guns were captured and thousands of prisoners were taken, including a General and several other officers."

—So war,—nor did that dread event end the fighting at Ypres, which has been since then in the center of the swirl of conflict for weeks. On this day of writing, the first of December, news has come that this famous old city of the "Cloth Hall" has been battered to ruins by the German guns.

Little Belgium—"Little Catholic Bel-

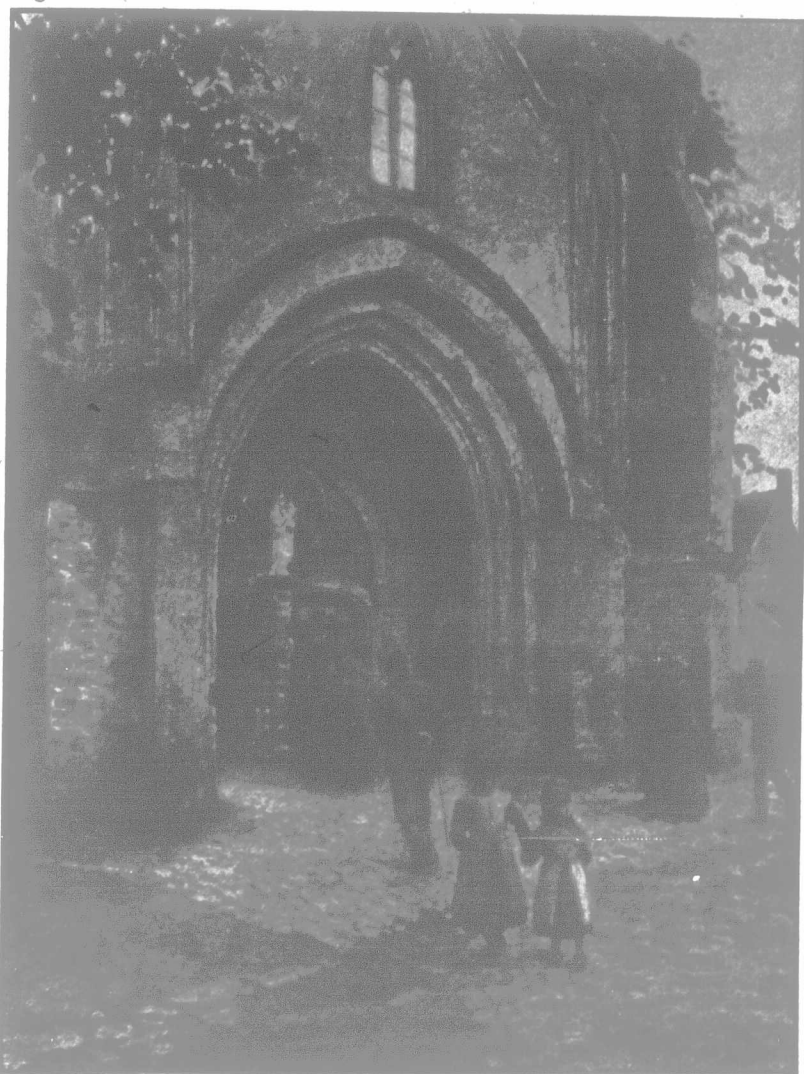
gium,"—torn, dismembered, yet fighting inch by inch, with her women and children and helpless old folk, scattered, homeless and moneyless, over Great Britain and Holland! Surely if a crown rewards suffering hers will be bright. In the words of G. K. Chesterton, "She saved France, she saved England,—herself she could not save. This is not the case of a little people in Asia or Africa who have no other course but to fight or be exterminated or sold into slavery. The Belgians had another course: they could have looked the other way while the Prussians crossed their country, so to speak, with their boots off. It is quite clear that even the Prussians, at the very beginning, wished to make it easy for them: the first messages from the German diplomats spoke of respect for independence and sovereignty. . . . Belgium could have saved her face; but she preferred to save Europe."

THE HISTORY OF BELGIUM.

"It's a long, long way to Tipperary," and it's a long, long way back to the beginning of the story of the Netherlands, of which Belgium was, until recent days, an important unit.

When Julius Caesar overran Gaul and pushed up into the flat, fertile countries bordering the foot of the North Sea, he found the Netherlands already practically divided into two, one part inhabited by tribes of Germanic stock, the other by Gallo-Celtic tribes, the Belgae, of whom the Nervii, between the Scheldt and the Sambre, were described by him as being the most warlike of all the tribes of Gaul.

For a time Roman rule,—and fortified camps appeared along the Rhine. . . . Came surging from the southward the Franks under their great king Clovis, who, converted to Christianity, did much, through his missionaries, to drive paganism from the land of the Belgae, a work pushed northward, later, in more strenuous fashion, by Charlemagne, who, at the point of the sword compelled the Saxons and Frisians to throw over their gods.—Fair means and foul, yet so it came that when the voice of Peter the Hermit rang through Western Europe, nowhere was the call to the First Crusade responded to with greater zeal than in the Netherlands. Religious impulse, the Crusades were commercial in effect, and it was through them



Church Porch, Nieuport, Belgium.

Nieuport was wrecked by the German shells on October 27.

that the Netherlands received their first real impulse towards commercial prosperity,—that impulse which has gone on and on until, in this Twentieth Century, Belgium, by her own energy and enterprise, succeeded in raising herself to the position of the fourth trading and manufacturing country of Europe.

There followed a chequed career for the Low Countries,—now under Burgundian rule, now Austrian, and now Spanish, with religious persecutions adding to the horrors of war, until the famous lord of the country, William the Silent, of Orange, with his "Sea-Beggars" drove out the Spaniards and their merciless Alva from Holland! . . . Finally came a union of the northern provinces to maintain their freedom and right to free religious worship,—then 1579 and the final separation of the Northern and Southern Netherlands. By the signing of the League of Arras in that year the Walloons declared their adherence to Catholicism and loyalty to the Spanish King.

Yet were "wars and rumors of wars," the Belgians fighting now with the independent Dutch across the Scheldt, now with the French, and losing, ever and anon, slices of territory to the latter.

One of the first steps of Louis XIV, during the War of the Spanish Succession, was to take possession of the Spanish Netherlands. . . . Nor were English soldiers unacquainted with Belgian soil. On the declaration of war upon France by Queen Anne, the great Marlborough's first advance was made in Belgium, and so it came that there were won his great victories of Ramillies and Oudenarde. As a result, by the Peace of Utrecht, Belgium was once more separated from Spain, and was placed under the sovereignty of a Hapsburg claimant, Charles VI., remaining under Austrian rule for nearly a century.

On the 11th of January, 1790, the Belgic provinces formed themselves into an independent state under the name of the "Belgian United States." Conquest by Austria followed, then by France, and after the fall of Napoleon, through the influence of France, a short period of union with Holland under the Prince of Orange as King William I. (Crowned March, 1815).

Such a union, however, could not last. The Belgians felt that they had been handed over in compensation for Dutch losses during the Napoleonic wars, hence it was not strange that in 1830 should occur a revolt which, for the last time, effectually separated Holland and Belgium.

On the 10th of November of that year a National Congress met at Brussels, and it was decided that Belgium should be henceforth an independent country, under a hereditary monarch, with a constitution drafted on the plan of the British parliamentary system. The throne was first offered to the Duke of Nemours, who declined it. It was then accepted by Leopold of Saxe-Coburg—the widower of the Princess Charlotte of England,—who subsequently married a daughter of the King of France. William of Orange, however, did not lightly yield his claim. He invaded the country and was only induced to withdraw on the advance of a French army, even then continuing to hold Antwerp until forced to dislodge from it by the combined fleets of France and Great Britain. Under pressure of the Allied Powers a treaty was signed in London on the 19th of April, 1839, by representatives from the Powers, one clause of which guaranteed that Belgium should form "an independent and perpetually neutral state." This treaty was the since famous "scrap of paper," disregard of which, on the part of Germany, precipitated, in Western Europe, the present unprecedented strife.

In 1865 King Leopold died, after a reign during which Belgium made much progress. He was succeeded by his son, Leopold II., whose reign was also successful, although besmirched, somewhat, by the revelation of atrocities existing in the Belgian Congo. Early in his reign threat of trouble came once more to Belgium on the outbreak of the Franco-Prussian war in 1870. Realizing the danger of her position the little country made haste to raise an army and send it to the frontier. In England also, the idea of peril to Belgium

caused much excitement, and it was then that Great Britain declaring her intention to adhere to the treaty of 1839 and to maintain the integrity of Belgium, induced France and Germany to agree not to violate the neutrality of Belgian territory.

King Leopold II., in turn, died five years ago, and was succeeded by his son, the good King Albert, whose name has shone so brightly during the past few months, on the list of self-sacrificing ones of the Great War.

Over arches or doors a thick rope of ground pine is sufficient, and the green can be brightened by branches of holly. Holly wreaths tied with red ribbon will be sufficient for windows. Be sure when selecting the ribbon that it is a rich crimson, harmonizing with the berries. Vermillion color is too often seen and is entirely inartistic.

Charming effects can be procured with little outlay for the table. A heavy wreath of holly will cost seventy-five cents. Place the wreath on a white em-

color, at each corner, fastening a spray of holly with perfect berries on each.

Chrysanthemums and roses are made of paper these days so as to appear as natural as their models. These flowers can be used time after time for table decorations if they are placed in boxes and covered, instead of being left outside to collect dust and become crumpled. A small sum invested in hot-house vines, to mix in, will make the artificial blossoms appear more natural.

A low mound of chrysanthemums wreathed with holly or ground pine makes an appropriate table decoration. The blossoms should be scarlet and white.

Crystal candlesticks, hooded with scarlet, and wreathed at the base with holly, will add to the effect.

Fruit is always an appropriate and pleasant center decoration. A silver dish is preferable. A pretty china or glass bowl lends itself charmingly and the common chopping bowl, filled with winter fruits and nuts, placed in a wreath of holly, will prove a novelty.—House-keeper.

Holly and Mistletoe.

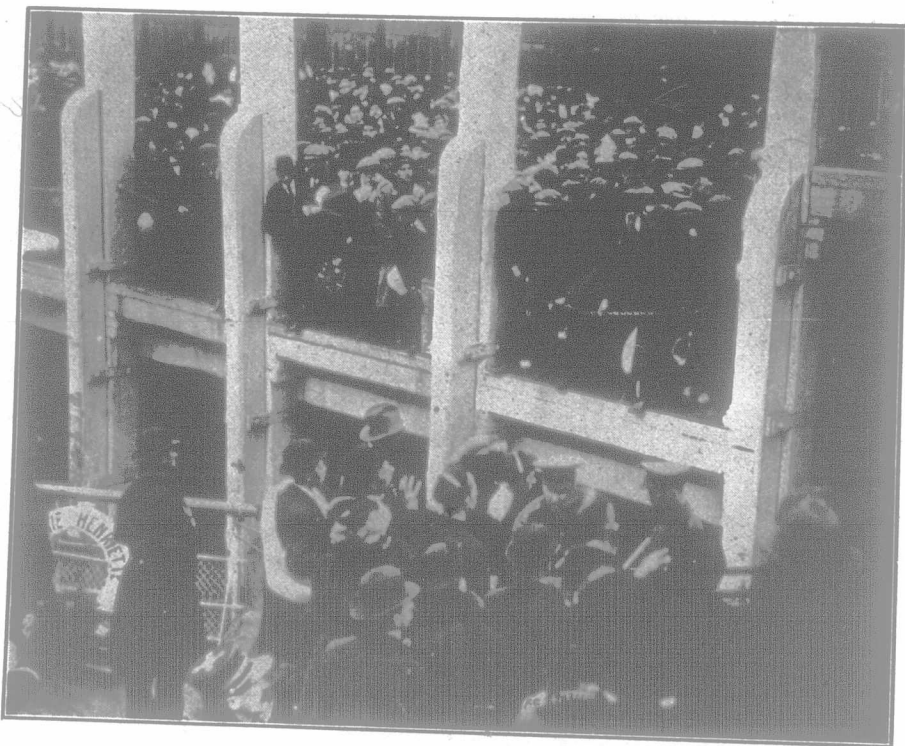
Professor F. Edward Hulme, gives some interesting information about holly and mistletoe. The former, now so much associated with church decorations, was, even before the days of Christianity, found adorning pagan homes, since the great feast in honor of Saturn fell in the winter seasons, and neighbors went to exchange great bunches of holly in token of goodwill, thus antedating in their religious worship and kindly greeting something at least of the spirit of the glorious song of the angels at the birth of the Messiah. "In England one rarely finds holly trees of any great size, though at Claremont, in Surrey, is one that stands eighty feet high, and in the New Forest may be seen several with a girth of eight or nine feet. The timber becomes valuable when the tree is of any considerable size, and so the trees are felled."

Even more interesting than the holly is the mistletoe, which, until quite recently, enjoyed a big reputation for its medicinal properties, especially as a specific for epilepsy. As a parasite it possesses many curious peculiarities, amongst others the fact that it is the only plant whose roots refuse to shoot in the ground; this and its traditional superstitions handed down from the days of the Druids, add a great deal to its charm. Herrick, full of quaint fancy, finding ever valuable lessons in the commonest and most unlikely things, sees in the mistletoe a beautiful emblem of his independence upon the care of Providence:

"Lord, I am like the mistletoe,
Which has no root and cannot grow.
Or prosper, save by that same tree
It clings about; so I by Thee."

The Christmas Tree in England.

The marriage of Queen Victoria with Prince Albert introduced many customs to us, and amongst others the Christmas tree. Where did the Germans get it from? Far away back in the ages you find Teutons believing in a mystic ash tree, Yggdrasil, which, with its roots and branches, united the world of the living and the world of the dead. "At the foot of Yggdrasil sit three Norns, who determined the destinies of men, and Yggdrasil's branches bear gifts for men to take." Is that our Christmas tree? Anyhow, the idea that Prince Albert introduced it into Great Britain is very prevalent. One of the prettiest and most eagerly looked-for events of the Christmastide—that of the setting up of the Christmas tree—is associated with the late Empress Frederick of Germany. Queen Victoria, after the birth of the Princess Royal, had Christmas celebrated at Windsor in 1840, and "on that occasion Prince Albert introduced the pretty German custom of decorating a Christmas tree. Since that period it has become a welcome custom for both rich and poor little ones in this country, and affords a graceful means of distributing little presents.—T. P.'s Weekly.

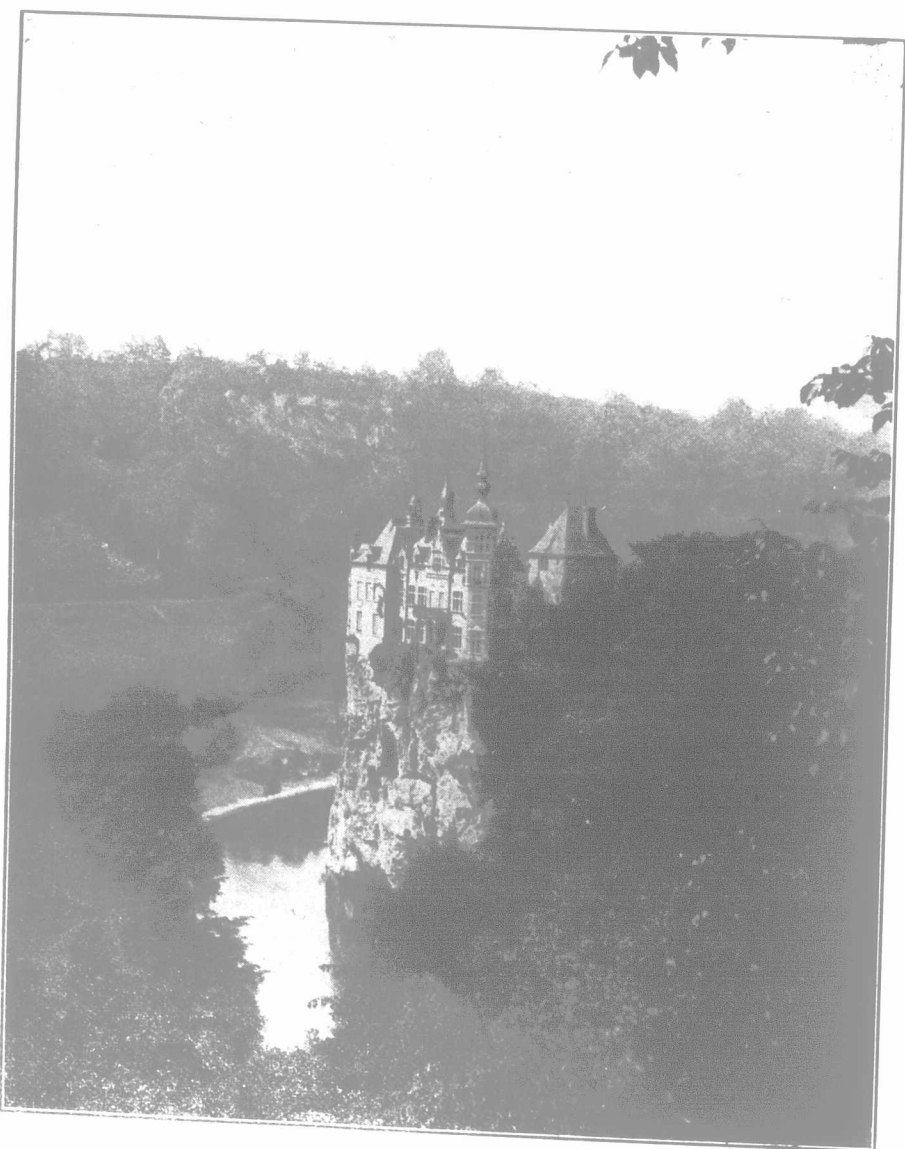


Scenes During the Great Exodus of Belgians from Ostend, October, 1914. Belgians on the piers at Ostend endeavoring to get aboard the steamer for England. Copyright, Underwood & Underwood.

Holiday Decorations.

As the holiday season approaches, decorations are uppermost in the mind. A false note is too often struck by having the rooms so laden with pine and holly that one experiences a sense of suffocation.

broidered centerpiece and stand the carnations in a green vase in the center, or one can use a crystal jar or even a white one with delicate ornamentation. This decoration may be easily ruined by the use of a pink, yellow or yellow-green vase or jar. If a little more elaborate trimming is wished, place streamers of red ribbon, matching the carnations in



Scene in Belgium, near Dinant. Copyright, Underwood & Underwood.



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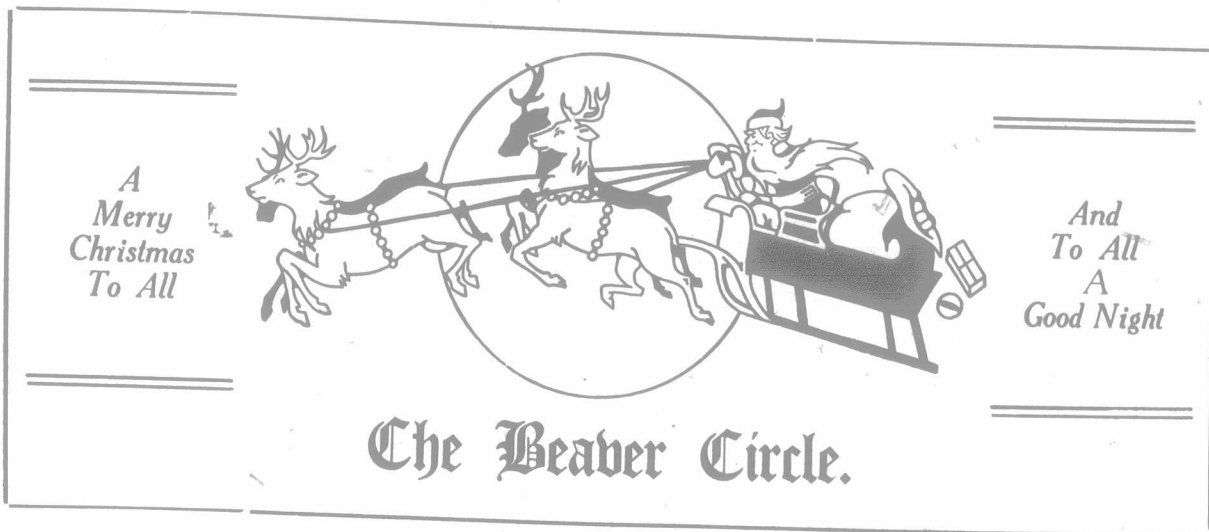
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When His Whip Goes Crack.

By John H. Cook.

Our good St. Nick is on his way;
His prancing steeds are near,
We hear the sound of the silver bells;
His sleigh is almost here.
A load of gifts is stored for all
Securely in his pack,
For he travels like the lightning,
When his whip goes CRACK!

Through all the year with plane and saw
He worked in his wondrous shop;
So much there was for him to do,
That he never dared to stop;
But when the gifts were all complete
They made a mighty stack.
He will surely bring them with him,
When his whip goes CRACK!

Now when we light our Christmas tree,
Oh, what a glorious sight!
With countless waxen candles lit,
And burning there so bright.
Our good old friend will load it down,
There will surely be no lack;
He always keeps his promise,
When his whip goes CRACK!

So hang your stockings, large and small,
Convenient in a row,
For they will look so tempting when
They're filled from top to toe.
Our generous saint will never fail;
He has a curious knack
Of giving right good measure,
When his whip goes CRACK!

Dorothy's Xmas Dream.

By Charles Findlater.

"Oh! bother it. If you won't stand up, well, just lie down," and with these wrathful words pretty little Dorothy threw down her beautiful new dolly. It was Christmas evening, and this particular dolly had been given her, among other presents, by her dear parents only that morning. Dorothy was not given to temper as a rule, and on this sudden outburst at the commencement of our story, she only had the satisfaction of seeing poor dolly's nose broken right off. When innocent Jane (that was the name Dorothy had given dolly) had been thrown away so roughly, she had, much against her will, of course, come into violent contact with another present, a needlework box, sending the scissors and the thimble, and needles and cottons in all directions, causing such an uproar that Dorothy's mother was soon on the scene. I guess some of my little readers will know what Dorothy's mother said when she saw what Dorothy had done to her beautiful presents. Yes, she was very severely scolded, and was to go to bed immediately. Poor little Dorothy; this upset her very much, for it was always her privilege to sit up with her mamma and papa on Christmas night. You see, boys and girls, what naughtiness brings on, for the next we see of Dorothy, she is making her way up the big, broad staircase toward her own little room. Once there she had to quickly undress, and was soon left to her own devices in the dark. With the exit of her mother, Dorothy set up crying afresh, but gradually her sobs grew less and less, and soon she lay sleeping, while yet big wet tears lay on her beautiful rosy cheeks. It seemed only a few minutes after she had fallen a victim to the enticements of the dream god, that Dorothy was startled and rudely awakened by a sudden jerking of one of her

long, golden locks. With a little cry she sat up in bed, only to be greeted with a sight which made her big blue eyes nearly jump out from behind their long black lashes. Standing quite close to her bed, and holding a lighted candle, was Jane the dolly, only now she was quite six times bigger; in fact, about twice as big as Dorothy herself. To make matters much worse, there, right in the center of Jane's rather round face, was the stump of a nose; all that remained of her once good-looking nasal organ, after its contact with the floor. Dorothy was very much scared. Her tongue had become suddenly dry and her lips seemed unable to frame the cry she wanted to make. What did this awful thing want with her, she wondered, but not long had she to wonder, for at this moment the big doll began to speak in a high-pitched, yet harsh voice, saying, "Dorothy the wicked, the one who delights in the ill-treatment of the great race of Toys, we come to take judgment against you. Get up from that bed at once and come with us!"

That awful voice caused a cold shiver to run down the back of poor Dorothy, but, nevertheless, she deemed it necessary to obey, and so she quickly clambered out on to the carpeted floor. Once there, she became suddenly aware of the presence of more than one giant toy, for there, ranged in a semi-circle behind the great doll, were all her presents of yesterday. First in the line was the contents of her needlework box; the scissors standing jauntily on its two points, and looking like a lord chief justice, just ready for the fray; then came the thimble and cottons, each bearing a sneering, scornful smile upon its face. After them came the needles, looking very wicked and dangerous as their great eyes took in everything around them. Next to the needles was that fine book of fairy tales Dorothy liked so much, and whom she knew she had never harmed, but which stood now with a look of hatred on its face, and a gleam not akin to love in its eyes. Next in succession came the big fat ball her uncle had given her, and then last, but not least, came her big slate, with its pencil tied to it. Of course, Dorothy had noted all this in a glance, but I can assure you, dear reader, it only added to her embarrassment.

As soon as our friend little Dorothy had reached the floor and looked around, Jane, the big doll and apparent leader of this unusual assembly, pushed her, Dorothy, before the gathering of Toys and said in a cruel voice, "Black Cotton, do your work." Immediately the reel of cotton so addressed, rolled forward and then, springing upward, began encircling little Dorothy with its coils, very much as a spider spins its thread over a poor unfortunate fly. Dorothy was spellbound, and was very soon cottonbound, too, for that black cotton done its work so well that Dorothy's hands and arms were soon tightly bound to her sides. When Jane considered the binding strong enough, she ordered Black Cotton to cease, and that worthy promptly getting tired by this time, quickly broke its thread and resumed its place among his fellows. Thereupon the big doll, holding up one hand for silence and pointing the other at Dorothy, said: "Friends, we are gathered together tonight, as well you know, to punish this human being for her disgraceful behaviour of last evening, when, in a fit of violent temper, she cruelly threw me down and broke my nose, of which I was so proud. Long have we toys been trodden under

foot (cries of assent and growls from other toys), and been made to work as slaves of amusement to the human world, and now I think it's time we asserted ourselves and make an effort to overthrow these tyrants. Now, I propose we commence by severely punishing this individual, and then tour the world and free slaves, such as we were, and punish their hard-hearted task-masters. All those in favor of my suggestion will they please hold up their right hand?"

Immediately all the toys held up their hands, for the proposed tour round the "world" pleased them very much. "Now that that question is settled," continued the doll, "what shall we do with this girl?" pointing to Dorothy. At once, as if they had been waiting for this moment, all the toys began pouring in their suggestions and ideas, but they were all refused as being "no good." First the thimble would bawl out, and then the scissors would "chip in" a sharp word or two, but still they could come to no real agreement. Meanwhile, Dorothy was standing shivering in her night-gown unable to move or speak. That a very cruel fate awaited her she little doubted, but yet escape seemed impossible. Opening her ears to their widest, she listened to the suggestions that were being made, and her poor little heart almost stopped when she heard big doll say, "Well, my friends, I think at last we have the right idea. It comes from our old and trusty friend, big slate. He proposes that we take this enemy of ours, and, with the assistance of Black Cotton and Willie the Needle, we shall sew her to the top of the big green curtain in the corner, and where she will be out of sight, and where, if she is not found and taken down soon, she will be eaten by the spiders. What do you say to the suggestion, my friends?" Immediately there was a chorus of approval and shouts of glee at the idea of this wicked enemy of theirs being punished in so novel a manner. Poor little Dorothy,—she began to cry at this and tried to run away, but the big doll was watching, and, catching her by the hair, pulled her back.

Then Jane ordered the needle and cotton to stand out and prepare for their part in the work, and turning to the others, she instructed them how to put the little fancy stool on a chair, so that she, big doll, could reach up to do her awful sewing. Eagerly the toys collected the necessary things, and when all was ready, Jane, the giant doll, gathered poor trembling Dorothy into her arms and commenced to ascend the improvised ladder. Getting up on the chair she proceeded to mount the stool, but as I said before, the stool was only a fancy one, and so as soon as the combined weights of Jane and Dorothy was placed upon it, there was an ominous crack. This was quickly followed by another one, and then, without a moment's warning, down came Jane with a crash. In her anxiety to save herself, Jane forgot all about little Dorothy, who, on being released, felt herself going down, down, and down, until she was suddenly brought up with a bump. Everything seemed black and silent, but after a few minutes, hearing no sound whatever, she dared to open her eyes, and where do you think she was? Why, she was lying in her own little bed. Looking anxiously around, she expected to see one of the dreaded toys at any moment, but not one could she see, so getting bolder, she quickly dressed and ran down stairs. There she found all her presents lying on the drawing-room table, with Jane the

dolly lying right on top, quite her natural size, too, and with her nose nicely stuck on by Dorothy's papa, as she found out later. How pleased was Dorothy now, for she knew that all her night's adventure was only a dream. Right then and there she promised never to get into a temper or harm any of her toys again, and I am pleased to say she has kept her promise, and never again has she had a repetition of her "Christmas dream."

Decorations for the Christmas Tree.

All sorts of decorations for the Christmas-tree may be bought, but it is quite possible to have a very pretty Christmas tree without spending much money on it,—a consideration this year when most of the spare dollars should go to the Red Cross Fund. A yard of red mosquito-netting and a few sheets of gold paper will form the foundation for enough pretty things to make a very-gay tree. Make the netting into cornucopias to be filled with candies; use the gold paper for covering stars made of pasteboard. Birds and "ladies" may be cut from the fashion books and other magazines, pasted on pasteboard, colored with water-colors and hung on the tree to add to its gayety, with strings of popcorn and cranberries to finish the decoration. If the cranberries are not at hand, bright-red apples, gingerbread-men and doughnut animals may be made to do service. Quaint little dolls can be made with ears of corn as a foundation, and dresses of red and yellow crepe paper.

If one prefers, the Christmas-tree may be presented in the guise of a snow-tree, and very pretty indeed is it. All the decorations must be white,—silver tinsel, strings of popcorn, silver stars, with cotton batting silvered with "diamond dust" plentifully used on the branches to represent snow, and pulled down to represent icicles. The dolls hung on this tree should be dressed to represent fairies, with white tarlatan gowns, silver wings, and silver stars on their heads. Small china dolls, which are not very expensive, will do.

A Japanese tree, with small Japanese parasols, dolls, and lanterns, is also very pretty. All the packages for it should be wrapped in red paper, while those of the snow-tree should, of course, be wrapped in white paper.

On Christmas day the children may be made very happy, and kept amused for hours by permitting them to trim a small tree of their own. Give them plenty of red and white tissue paper, a pair of dull scissors, and a pot of paste, with a few hints on how to make fluffy balls, poppies, fringe, and chains, let them have an old catalogue from which to cut figures to be pasted on pasteboard, and give them some popcorn and peanuts to sting, and they will take care of themselves, leaving the older folk an opportunity to talk.

A train was rushing through some swamps in which thousands of cattails were bobbing their brown heads in the breeze.

Hughie was from the city and had never before seen a cattail. He watched them curiously through the car window a moment, then turned to his mother expectantly.

"Why?" he asked. "I didn't know cattails grew that way!"

Christmas Gifts.

By Ralph M. Thomson.

Not grudgingly, O Lord, nor through
constraint;
Not as some money-changer bent on
gain,
Whose motive bears commercialism's
taint,
And shows the imprint of a deathless
stain;—
But unto each alike—if great or small,
Or rich or poor, or far from Thee
apart—
Lord, let me give, if I would give at all,
Without dissimulation in my heart.
Not loftily, O God, nor yet in state;
Not as the condescending of the earth,
Who of benevolence so loudly prate,
And stoop to pander in accord with
birth;
But scorning to exact a single toll,
Lord, let me do, and for the least of
them,
With something of that love deep in my
soul
With which Thou gavest Him of
Bethlehem.
Not critically, Lord, nor in disdain;
Let me not prove an ingrate strewing
woe;
Forbid that I may cause one mortal
pain,
Or change one token-bearer to a foe;—
But on this Christmas day when nations
sing
The glory of the Infant undefiled,
Make me to know that jewels from a
king
Have no more worth than tinsel from
a child!

The Christmas Dinner.

It is not stretching a point, perhaps, to say that in the majority of homes this Christmas the Christmas dinner will be "plain,"—plainer, perhaps, than ever before.—and this is well. Let us cut off all superfluities and send the extras to the soldiers, who have so little comfort, poor souls, fighting on the wintry plains of Europe. Let us save the great demonstration, the grand old-fashioned dinner of almost riotous cheer, until the Christmastide when they will be with us again, when nothing will be too good or too full of glad welcome for those who have suffered so much. God grant that the light of another Christmas day may see no armed men face to face in Europe, no howitzers and mortars up-drawn with the threat of cold steel,—but only men ready to clasp hands once more as brothers, taught by the Great War to work harder than ever before to so arrange the affairs of the world that there may be, in the future, less chance of the breaking out of this great evil on the face of the earth.

In the meantime, however, it is not well that the glad celebration of the Christmas season be permitted to pass by in mourning and gloom. Were it only for the sake of the children, fires should burn bright and tables be gay in the homes on that day of days, and, real-

ly, a very cheery appearance may be attained at but little expense, if pains be made to take the place of money. The dinner itself need not be very elaborate, but may be made to seem quite so, in the eyes of the admiring children, by using a few simple decorations.

For the center of the dinner-table nothing can be prettier than a tiny decorated tree. This may be carefully dug up in the woods and actually planted in a large pot or bucket, so that it may be set out in the open again in spring, thus preventing the loss of even a single tree in this age of rapidly disappearing forests. If such a tree is not obtainable, a bristly branch taken from the orchard prunings may be fixed upright

berry" with its twin leaves and pretty red berries.

THE MENU.

In the majority of homes, it is to be surmised, fowl of some sort will not be dispensed with even in this eventful year of 1914. Goose, or turkey, or chicken will be likely to find its place as usual. In making stuffing for chicken or turkey the following economical hint may be found of use. Add to the breadcrumbs, when prepared, the cooked giblets, also any other bits of meat that may be about, all put through the meat-grinder. The result is a rich stuffing which makes the fowl "go further." A very nice stuffing for goose is made as follows: Soak a quarter of a pound of prunes

frying of this kind may be used over and over again.

Instead of the corn stewed celery may be the vegetable chosen. To make it cut up and stew one or two heads of celery in just enough water to barely cover. Season with salt and pepper and a very little onion juice, and let the water cook off. Put the celery in a baking dish with layers of thick white sauce, nicely seasoned, cover with grated cheese and buttered crumbs and bake brown. To make the white sauce rub butter and flour together and add to boiling milk, stirring until cooked. Season with salt and pepper—white pepper or paprika preferred.

Plum pudding, which is almost a meal in itself, it is so rich in protein, starch, sugar and fat, may very well be eliminated from the Christmas dinner, which is usually rich enough without it. Instead may be served carrot pudding, or plum pudding jelly. The carrot pudding calls for 1 cup sugar, 1 cup grated raw carrots (or beets, grated raw), 1 cup grated raw potatoes, 1½ cup flour, 1 teaspoon soda, pinch salt. Steam or boil for 3 hours and serve with a good sauce.

The plum pudding jelly is made as follows: Put half a box of gelatine into a cup of cold water and soak half an hour; heat a pint of milk in a double boiler, and when hot dissolve a cup of sugar in it and 1½ ounces of chocolate melted. Put a cup of stoned raisins, a cup of washed currants, ½ cup sliced citron, and 1 teaspoon of cinnamon and cloves in a very little warm water on the stove to soften. When the milk and chocolate are well mixed pour them over the gelatine and strain into a bowl. Put in a cold place, and as soon as it begins to grow firm stir in the fruit and put into a mould. Let stand over night, turn out on a platter, surround with whipped cream, and edge with holly.

If pie be preferred to pudding, a very nice one may be made of cranberries, or cranberries and apples, stewed and beaten to a pulp. Bake with one crust, "cross-bar" the top, and decorate with bits of holly.

Salads may be served in cups made of bright red apples hollowed out, or in orange-skins. No salad is nicer than the famous "Waldorf," made of chopped apples, celery and nuts. If it is, for any reason, desired to serve the salad dressing separately, a pretty idea is to serve it individually in halves of lemon skins on sprigs of parsley. Indeed, parsley, which every one should have growing in pots in the house, should be used to garnish all salads of this kind, as well as cold meats.

Christmas would not be Christmas to a great many housewives without a special cake. Here is a recipe which is recommended, and not too expensive. Take 1½ cups granulated sugar and beat to a cream with ½ of a cup of butter. Add 3 eggs beaten light, then 1½ cups rich buttermilk or sour milk. Dredge 1 large cup of washed currants, 1 large cup of stoned raisins, and one-half of a candid lemon peel chopped fine, with flour. Sift 3 cups flour into the egg mixture, adding the fruit after the flour but before it is stirred in; also add 1 teaspoon cinnamon, ½ teaspoon each allspice, cloves and nutmeg, 1 rounded teaspoon soda, which may be stirred into the buttermilk. Stir all thoroughly. A little more flour may be needed—the dough should be stiff enough to just drop off a spoon. Bake in a loaf tin, in a slow oven, for about 45 minutes.

The Christmas Spirit.

By Helen M. Richardson.

Just a little bit of Christmas
For the neighbor at your side,
Who upon the wave of fortune
With yourself seems not to ride.
Do not be a miser, hoarding
Health and strength and power to
bless,—
Share them with the lone one near you
Who these charms may not possess.

For 'tis not alone the dollar,
Soon forgotten, that you spend,
But the hand-shake that goes with it,
Carries blessing in the end.
Putting the true Christmas spirit
Into everything you do,
You will find it will be Christmas
In your heart the whole year through.



The Retreat from Belgium.

Moving the Seat of Government to Havre, France, October, 1914. Copyright, Underwood & Underwood.

in a box, then wound round and round, until every twig is covered, with narrow bands of old white cotton deeply frayed at the edges. The effect, to the imaginative minds of the children, will be that of a "snow tree," and very attractive indeed it will look when decorated with strings of cranberries, and all the small odds and ends that children adore.

If preferred, the "decoration" may consist of a hoop suspended above the table, horizontally, wound with greenery, and used as a foundation for the red crepe-paper bells. Or, if one can get them, half a dozen red candles in a bank of holly will be found to make the prettiest centerpiece imaginable. Holly, of course, "costs," but, unless the snow happens to be too deep, a very good substitute may be found in most of the woods of Canada,—the trailing "pigeon-

over night and cook until tender. Put a cup of rice into a quart of cold water and slowly bring it to a boil, then rinse with clear water and drain. Add the prune juice, and more water if necessary, to make 1½ pints altogether, and cook with a little salt until tender. Cut the prunes into bits, add 12 large chestnuts blanched and cut up, also butter, pepper and salt to taste.

Corn fritters are very nice with any kind of fowl. To make them mix together 1 pint canned corn, 2 beaten eggs, 1 teaspoon butter, 1 teaspoon sugar, 1 tablespoon milk, pepper and salt to taste, and just enough flour to make into small balls. Cook in deep fat until nicely browned. The fat should be heated until a "blue smoke" begins to come off the top before the fritters are put in; otherwise the fritters will be soggy and the fat wasted. Fat for deep



Belgians Fleeing to Holland for Safety.

(Rules for communications: (1) All communications should be addressed to the Editor, The Spirit of the Age, 1111 Broadway, New York, N. Y. (2) All communications should be stamped with a postage stamp. (3) Allow one month for return of questions to a

The Spirit of the Earth this

down. By the far a broad side and a steel-black water to w here glimmer of winter there is the farm homes, of clustered set up their of the firm "Peace,"

but there is listens, and in the farm cities, a tro to him that Christmastid to ring out Earth, Good "Whence th quivering br over the wa all the sigh

Once more down,—across though a gr were upon th shifting of s of the hearth And he be marvel, for the midst of ing lights a uttered, and hear.

He sees th a multitude of again and channels, fr anxious, wait terday, peerin rifle-barrels, again on the begin again to-morrow th and, mayhap, dying and w men against though there malice and v erse!—But t ten million w and, perchance fight the bett

The Spirit of the darkness, as a shadow of d and where the

But he liste and his heart, all unuttered. And then he masses of men pitiful units, so miserable, cold ice, cold lion hearts to ing, this Chri can think) of sweethearts, a ren: "What ar they facing?" bitterness of wounds and w of past days, tree, worn lig ripple of laugh ing out softly on Earth, Good Six million this Christmas a great loadin

"God's in th the world" whom many a great lover a

The Ingle Hook.

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

Christmas, 1914.

The Spirit of the Air hovers above Earth this Christmastide and looks down.

By the faint light of the stars he sees a broad continent washed on the one side and the other by heaving waves, steel-black in the darkness, and from water to water are vast fields, here dun, here glimmering white where the snows of winter have drifted. Everywhere there is the tiny glint of lamplight from farm homes, and ever and anon a blaze of clustered twinklings where cities have set up their small rivalry to the "lights of the firmament."

"Peace," says the Spirit of the Air; but there is no echo,—and then his heart listens, and he finds among the people in the farm homes, the people in the cities, a troubled unrest, and it comes to him that the church-spires, on this Christmastide of 1914, scarce know how to ring out their chime, "Peace on Earth, Good Will to Men."

"Whence this unrest?" asks he,—and a quivering breath smites upon him from over the water, and a sob that is not all the sighing of the night-wind.

Once more the Spirit of the Air looks down,—across the sea—and it is as though a great void and formlessness were upon the face of the earth, with a shifting of strange lights that tell not of the hearths nor the happiness of men.

And he bends low to consider this marvel, for there comes to him, from the midst of the darkness and the shifting lights a moaning that is all unuttered, and that only his heart can hear.

He sees that the snow is darkened by a multitude of armed men, and he looks again and descries dark grave-like channels, from which long lines of anxious, waiting eyes looked forth yesterday, peering above the gleaming of rifle-barrels, and will look forth thus again on the morrow. To-morrow will begin again the thundering of cannon, to-morrow the shriek of shot and shell, and, mayhap, the cries of ten thousand dying and wounded—five millions of men against five millions of men, as though there were naught but fury of malice and iron hate in all God's universe!—But to-night there is truce, and ten million warriors lie waiting, resting, and, perchance, to-morrow they will fight the better for it.

The Spirit of the Air veils his face before the unutterable horror,—“A land of darkness, as darkness itself; and of the shadow of death, without any order, and where the light is as darkness.”

But he listens again with his heart, and his heart hears the moaning that is all unuttered.

And then he knows that these vast masses of men are but made up of little pitiful units, each, this night, so cold, so miserable, so lonely. Cold snow, cold ice, cold rifle-barrels,—yet ten million hearts too, each alone, each thinking, this Christmastide, (for the heart can think) of home,—of sisters, and sweethearts, and wives, and little children: “What are they doing? How are they facing?”—And then through the bitterness of cold and the aching of wounds and weariness comes the memory of past days,—the blazing Christmas tree, warm lights, happy faces, and the ripple of laughter, with the chimes ringing out softly in the distance, “Peace on Earth, Good Will to Men!”

Six million human souls, not bitter, this Christmas night, just lonely, with a great loneliness.

“God’s in His heaven, All’s well with the world!” sang triumphantly one whom many among us have hailed as a great teacher and prophet.

Some day in the vast future must come the last end of all this thick horror of war, and only to the eye of a great faith does it appear that that end must be all light. Yet perhaps it is not utterly beyond the comprehension of those who see less clearly, that out of Evil may come Good. To-day men suffer and fall; in the far-off to-morrow the race may have moved on because of the great sacrifice. Nor can the Christian mind grasp other than that, somehow and somewhere, for those who have so suffered, will come full compensation.

War was not needed to set things right. The conflagration has been but the result of wrong ideals; nevertheless its ugliness may serve to make more forceful, some day, the advent of a great Beauty. And so may the pain of the present be lost, though ever so little, in a radiant hope for the future. For “Now we see through a glass darkly, but then face to face.”

JUNIA.

Socks for the Soldiers.

Many novices who are knitting for the soldiers may be glad to read the following directions, kindly sent by L. M.:

To knit a double heel: First take half the number of stitches on needles. Be sure and have an even number. For example, suppose a coarse sock with 63 stitches. For heel, take 32 stitches on one needle with the yarn at right of needle. 1st row—knit plain across, turn. 2nd row—slip 1, knit 1, slip 1, knit 1 till across; turn. 3rd row—slip 1, knit plain across; turn. Same as second row, turn same as 3rd row. Repeat till you have 3½ or 3¾ inches long. Have right side of heel toward you with yarn on the right of needle, slip 1, knit 18, knit 2 together, turn. Take other needle in right hand, slip 1, knit 1, slip 1, knit 1. At the tenth knit 2 together, turn. Slip 1, knit plain, at the tenth knit 2 together, turn. Repeat till only ten remain on needle with right side of heel toward you and yarn at right of needle. Slip 1, knit plain across and take up stitches on the side of heel.

Candies for Christmas.

This year, when so much work is required for field hospitals and for keeping soldiers at the front as comfortable as may be in the face of winter, and exposure, and long marches, Christmas presents for folk about home should be of the quickly and easily-made order, and perhaps nothing will answer all requirements so well as boxes of candies, daintily wrapped. The following recipes may be of use for this purpose.

Marron Glaces.—Cook some shelled chestnuts until tender, then let them simmer for an hour in a syrup made in

the proportion of 1 cup sugar and ½ cup water. Set aside until the next day, then reheat for half an hour. Drain the syrup off the nuts and boil it for 15 minutes rapidly. Add flavoring if liked, dip each nut in the syrup, and spread on waxed paper to dry. If liked some of the nuts may be dipped in melted chocolate. Pack in white boxes, tie with red ribbon, and put a sprig of holly on the top.

Frosted Fudge.—Mix 3 cups sugar, 1 cup milk, 2 squares chocolate, and 1 tablespoon butter, and bring slowly to

away to cool. When nearly hard cut into squares.

Maple Puffs.—To 1 lb. maple sugar and 1 cup brown sugar, add 1 cup of water and boil without stirring until it will ball when dropped in cold water. Cut a dozen marshmallows into pieces and add to the mixture in the saucepan which has been removed from the fire. Cover and let stand 5 minutes. Mix well again and pour slowly over the well-beaten whites of 2 eggs. Beat the mixture all the time, and when it begins to harden so that it will hold its shape stir into it 1 cup chopped walnuts or butternuts, also candied pineapple and cherries if liked. Mould into small cakes and lay on waxed paper. Place a candied cherry on top of each and set away to harden.

Candied Nuts.—Into a saucepan put 1 cup brown sugar, one-third cup corn syrup, 1 teaspoon vinegar, 1 teaspoon glycerine and ½ cup water. Boil without stirring until it is brittle when put into ice-water, then remove from the fire and let stand for 3 minutes until the syrup ceases to boil. Place the nuts to be candied, carefully shelled, on a shallow, buttered pan, pour the syrup over them and set away to cool.

Pinouchi.—2 lbs. brown sugar, 3 tablespoons butter, 1 cup milk, 1 cup pecan nuts and 1 teaspoon vanilla. Boil the sugar, butter and milk until it forms a soft ball when tested in cold water. Take from the stove and add nuts and vanilla. Beat until quite thick. Pour into buttered pans and cut in squares.

Divinity.—2-3 cups white sugar, 2-3 cup water and 2-3 cup corn syrup. Boil until a drop of the mixture on the edge of a spoon can hardly be pulled off when held for a moment in cold water. Add 2 teaspoons vanilla and stir slowly into the whites of 3 eggs which have been stiffly beaten with ½ teaspoon salt. Stir until quite stiff, add 1 cup broken nutmeats, and continue to stir until portions of the mixture can be put on thinly buttered plates in teaspoonfuls without losing their shape.

Christmas Presents.

Don't give your children, or those of anybody else, a rifle or any implement of torture for Christmas—or any other time. Discourage such gifts at all times. Rather give your boy a humane book, or a camera. This will teach him to spare a life and not take a life, and so avoid the suffering caused by shooting innocent animals and birds—very often, also, innocent human beings. Teach your children and those of other people to “Be Kind to Animals.”—Our Dumb Animals.

“A man must be both stupid and uncharitable who believes there is no virtue or truth but on his own side.”—Addison.



A Belgian Shrimper.

a boil, then boil hard for about 5 minutes. Remove from the stove, add a teaspoon of vanilla, and beat until thick and creamy, then pour into a buttered pan and place it just inside the oven. Now boil ½ cup milk and 2 cups sugar. After 6 minutes remove from the fire, add 2 teaspoons butter and ½ teaspoon vanilla. Beat this, also, until it is creamy, and pour over the chocolate fudge already in the pan. Set



Among the Beet Fields.

Belgians with machine guns ready to repulse an attack by the Germans, on the battlefield of Iddesbeld. Some of the soldiers are digging intrenchments.

"The Nation That Stood Between"

By Mabel L. Stuart.

O broken-hearted nation,
Crushed by a murderous heel!
O land of desolation,
Scarred by fire and steel!
The ashes of thy glories
Are crying from the ground;
Thy smouldering homcs are calling
With no uncertain sound;
The wail of the weak and helpless
Is ringing in our ears;
The sigh of thy dying herces
Has moved a world to tears!

Treasures of Art in ruins,
Valleys and hills laid waste,
Aged, and poor, and homeless
Fleeing in anguished haste.
Flower of thy manhood lying
Where chill winds blow high,
A smile on the silent faces
Turned to a lurid sky.
Ah, smile, ye silent warriors!
God's good time draws near—
The moan of a people's sorrow
Has reached His pitying ear!

O broken-hearted nation,
Thine an undying name;
Belgium stands emblazoned
In shining halls of fame!
When the black night of horror
Rolls from thy nationhood,
And Peace like a fragrant lily
Springs from the field of blood,
Thine be the highest honor!
For in the final scene
Britain and France shall not forget
The country that stood between!
—The Westminster.

A Carol.

The little Lord Christ
Came down from the sky.
Oh, the snow lies deep,
And the wind is high,
But the Christmas bells are ringing
The little Lord Christ
They found Him no bed;
With oxen and sheep
He laid His dear head.
The Magi, gifts are bringing
The little Lord Christ
Loved you and loved me.
The shepherds have left
Their fires—and see!
The Christmas angels, singing

Little Jack Horner in Various Modes.

By E. Lyndon Fairweather (aged 17).

It is a well known adage that it is not what you say but the way you say it which really matters. This is a rather humiliating fact when we consider the babies and sages oftines utter the same truths, only the latter use a more complicated phraseology. I propose to illustrate this by means of a well-known nursery rhyme which runs as follows:—

Little Jack Horner
Sat in a corner
Eating his Christmas pie.
He put in his thumb
And pulled out a plum
And said "What a good boy am I!"

This is certainly simple enough to be uttered by a very young child, but I mean to show that the theme would not have been unworthy of some of our greatest poets.

TENNYSON.

For instance, suppose Tennyson had thought fit to introduce the subject of Little Jack Horner into his "Idylls of the King" the passage might have run somewhat as follows:—

And so the lad, in simplest garb arrayed,
Reposed him in an angle of a wall
Upon a wooden bench of rustic form.
Jack Horner was his name, and oftines
he

Reclined upon this selfsame bench, and
mused,
But now he held, supported on his knees,
A dish of goodly fare, wherein he sought
With nimble thumb, the fairest of the
fruits,

And having found, he drew it forth anon
And quoth aloud, with perfect courtesy,
"Good sir, I am an honest lad withal."

WORDSWORTH.

Let us now listen while Wordsworth tells us the same story:—

I saw a little cottage lad
Who in a corner sate;
His happy face it made me glad—
A Christmas pie he ate.

"What is your name, my little boy?"
"Jack Horner, sir," said he;
His face lit up with childish joy
In sweet simplicity.

He put his thumb within the pie
In search of pleasant food
And said, when he had licked it dry,
"Kind sir, I'm very good."

KIPLING AND BURNS.

Might not our present-day poet, Mr. Rudyard Kipling, have expounded the same idea in the following lines? :—

You can see Jack Horner sittin' in the
corner of the kitchen
With his little dish of puddin' on his
lap:

If the dish you try to collar, then you
bet your bottom dollar
That you'll find he ain't indulging in a
nap:

For he shoves his little thumb in, when
he hears a person comin'.
And he picks the biggest plum that he
can see:

And he makes this observation on the
present situation:
"Guess you won't find no one else as
good as me."

Robert Burns of that ilk might have written like this:—

Jack Horner there, the bonnie lad,
Sae fu' o' joy and pleasure,
A wee bit ashet makes him glad—
He's eatin' at his leisure

The noo he pu's a plim awa'
And then he taks anither
An' says, "We're nae sae bad, at a',
The pie an' me thegither."

MILTON AND OMAR KHAYYAM.

Since we are in the land of supposition let us suppose that the mighty Milton had condescended to describe the doings of Jack in "L'Allegro" or "Il Penseroso":—

Come, heavenly muse, and sing to me
In tones of passion, pure and free,
Jack Horner was the knave yclept,
Who to a corner hiding crept;
And, like the guests in Circe's power,
Consuming, spent a pleasant hour,
From Christmas pie of goodly hue
He drew a plum, which shone anew
As though from far Hesperides

It took the apple's power to please.
Then to Jove's altar loud he cried:
"I too am good. Let plums abide!"

The next effort is with abject apologies to Omar Khayyam and his immortal "Rubaiyat":—

Happy the lad (Jack Horner is his
name),
Who follows not the misty path of
fame,
But seizes what the moment offers him,
Nor questions where he goes, nor whence
he came.

Some youths refuse the puddings of the
day
And wait for Christmas cakes in fine
array;
But hark the answer: "Fool, why dost
thou wait?
Thy mother's going to give those cakes
away."

So Jack lifts not his protests to the
sky,
But draws a plum from out the present
pie.
And, tasting of the goodly fruit, ex-
claims:
"I' faith, a good philosopher am I."

SHAKESPEARE.

The versatile Shakespeare might if he had wished have placed the following soliloquy into the mouth of Hamlet:

A pie! A Christmas pie, and naught be-
side—

That's scarce a dish for princes, nor so
rare
But I should ask some relish to't; But
stay!

That was the dish Jack Horner ate,
what time

He lodged upon the corner seat, and
plucked

With thumb in dish, the ever-luscious
plum

Which he consumed thereon. To taste,
to eat,

To eat, perchance to choke!—Ah, there's
the rub:

For who can say the plum may not call
up

The thousand natural ills that flesh is
heir to?

Yet Horner ate, and having eaten, still
Pronounced himself contented with him-
self.

Thrice happy man, that thus proclaims
himself

No slave of conscience, but is justified
In his own eyes!—T. P's. Weekly.



Along the River Meuse.

One of the great battle grounds of the war. Copyright, Underwood & Underwood.

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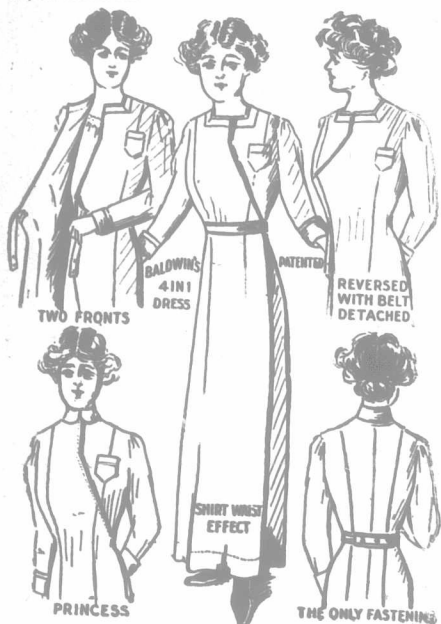
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Advertisement for Richards' Quick Naptha Soap, featuring the text: "Richard's QUICK NAPTHA THE WOMAN'S SOAP, MADE IN CANADA"

Our Christmas.

By Julia Walcott.

We didn't take much of a Christmas, My Papa and Rosie and me, For mamma'd gone out to the prison To trim up the poor pris'ner's tree;

And Ethel, my big, grown-up sister, Was down at the 'sylum all day To help at the great turkey dinner, And teach games for the orphans to play.

She belongs to a club of young ladies With a "beautiful objick" they say, 'Tis to go among poor lonesome children And make all their sad hearts more gay.

And Auntie, you don't know my Auntie? She's my own papa's half sister Kate; She was 'bliged to be round at the chapel 'Till 'twas,—Oh sometimes dreadfully late,

For she helps the poor worn-out curate His burdens, she says, are so great, So she 'ranges the flowers and the music And he goes home around by our gate, I should think this way must be the longest,

But then, I suppose, he knows best, Aunt Kate says he in tones most splendid; And his name is Vane Algernon West.

My Papa had bought a big turkey And had it sent home Christmas Eve; But there wasn't a soul here to cook it, You see Bridget had threatened to leave

If she couldn't go off with her cousin, (He doesn't look like her one bit) She says she belongs to a "union" And the union won't let her "submit So we ate bread and milk for our dinner,

And some raisins and candy, and then Rose and me went down stairs to the pantry To look at the turkey again.

Papa said he would take us out riding— Then he thought that he didn't quite dare For Rosie'd got cold and kept coughing; There was dampness and chills in the air.

On the day so long and so lonesome! And our papa was lonesome as we; And the park was dreary,—no sunshine, And all the sweet roses,—the tea, And the red ones, and ferns and carnations

That have made our bay window so bright, Mamma's picked for the men at the prison; To make their bad hearts pure and white.

And we all sat up close to the window, And we met on our papa's two knees, And we counted the dear little birdies That were hopping about on the trees. Rosie wanted to be a brown sparrow; But I thought I would rather, by far, Be a robin that flies away winters

Where the sunshine and gay blossoms are. And papa wished he was a jail bird. 'Cause he thought that they fared the best; But we all were real glad we weren't turkeys

For then we'd been killed with the rest. That night I put into my prayers,— "Dear God, we've been lonesome to-day For Mamma, Aunt Ethel, and Bridget. Every one of them all went away.— Won't you please make a club, or society,

For it's time for Christmas to be, To take care of philanthropist's families, Like papa and Rosie and me?"— And I think that my papa's grown pious For he listened, as still as a mouse, Till I got to Amen;—then he said, "So it sounded all over the house."

Meeting an Emergency. The charming wife of a French diplomat had never thoroughly mastered the English language. She was urging an American naval officer to attend a dinner, the invitation to which he had already declined. The lady insisted that he must go, but the young officer said he could not possibly do so, as he had "burned his bridges behind him."

These Sales Indicate Popular Approval!

Although it is claimed in some quarters that, owing to the present unusual conditions, business has dropped off, the very opposite is the case with us.

During the eleven days ending November 6th, 1914, we sold no less than 53 Sherlock-Manning 20th Century Pianos.

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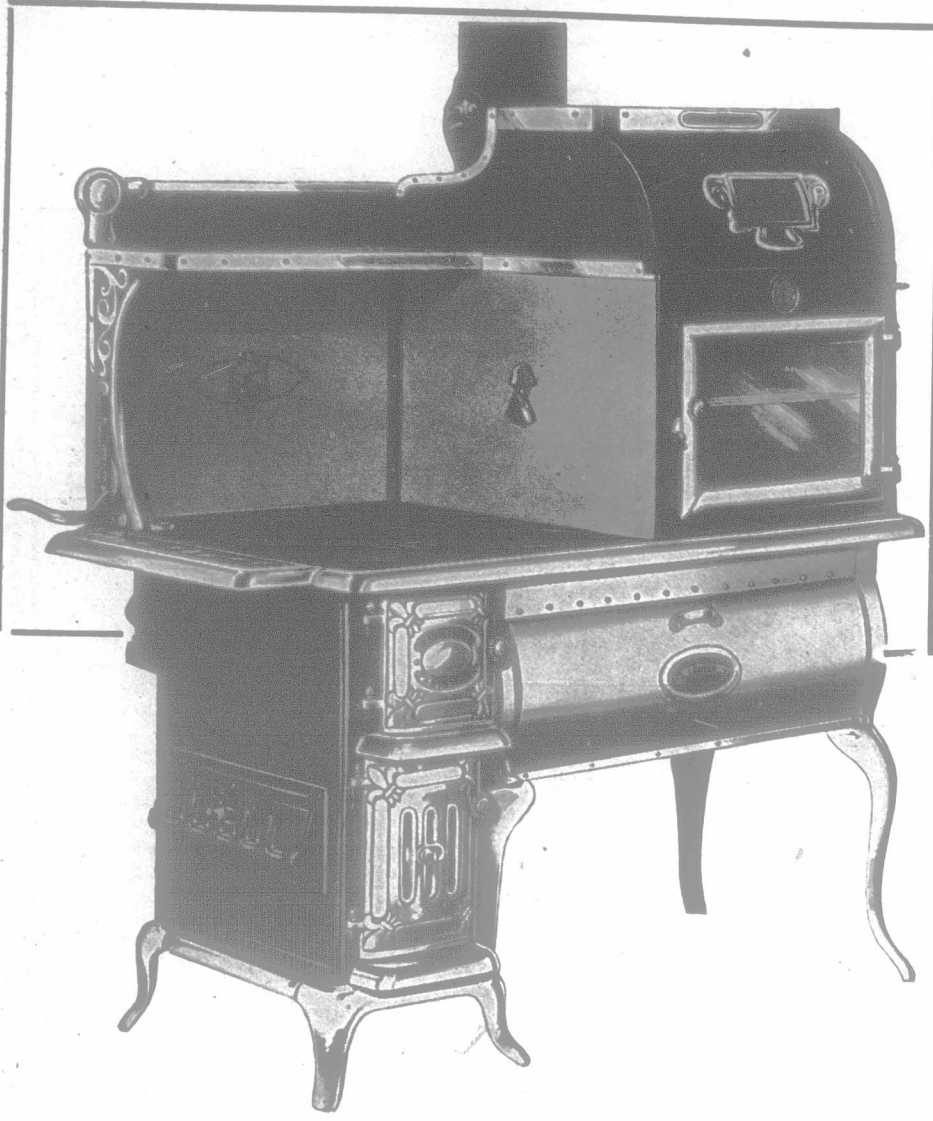


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A choice of spotless White Enamel or beautiful Tile at back, and side of oven.

Inside Pot-holes (2) for keeping in cooking odors.

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For Coal and Wood
4 outside potholes—2 inside holes for shutting in odors of cooking.

In fifty years of making Peninsular Ranges, we have never expected a woman to keep one that did not give entire satisfaction. The HIGH-OVEN Peninsular is sold on the same plan. We will guarantee it unconditionally.

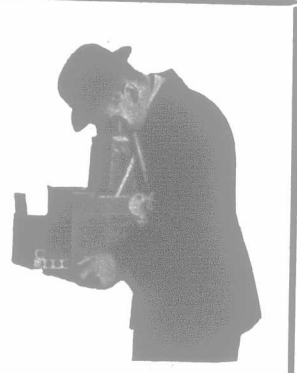
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A REMINDER to write for "A Lighter Day in the Kitchen." To

CLARE BROS. & CO., Limited, Preston, Ontario

Makers of the HECLA FURNACES

Write your name and address in the margin below and send it to us.



A PHOTO STORY

Our photographer has made a book of wonderful interest to women. He took pictures of a real woman using the HIGH-OVEN Peninsular—No clearer suggestions for lessening work on baking day could be made.

"A Lighter Day in the Kitchen"

We are printing enough to give a copy to every woman who writes for one. Just so you won't overlook getting yours, tear off the reminder and take the first opportunity to send it to us.

University Extension.

(Continued from page 2118.)

FREE "MOVIES" FOR THE SCHOOL.

"Movies"! What a field for the educator! No single invention since that of the printing press has had greater educational possibilities. Yet we are only just beginning to till the field.

Lantern slides have not been used as much in our schools as they might have been, because of the expense of securing them. The people of a given community soon learn to know their few community-owned slides by heart, and then they are put away to gather dust. Moving pictures, also, have been quite out of the question for most schools, because of the excessive rental of the films which cost from \$80 to \$100 a piece, ordinarily, for production.

Yet, by means of a little co-operation, those valuable aids to instruction can be made available. The University of Wisconsin is now demonstrating that fact. Establishing a Bureau of Visual Instruction recently, it has formed a library of lantern slides and moving picture films for lending to the schools and social centers of the State. Already 160 cities have entered into the circuit organized by the university and are receiving this new service.

Some of the pictures take their audiences to the far corners of the earth; others show them the marvelous processes of modern industry. Some show "How Plants are Born, Live and Die"; others, how the fly pest gets in its deadly work. A few films, such as "Scenes on a Cattle Ranch," "Farming in Texas," "The Evolution of the Paper," "Farming With Dynamite," "The Bee and Beekeeping," are of especial interest to farmers, as are the slides on concrete walks, floors, troughs, tanks and silos, and "The Development of Agriculture," and "Farming in Canada." A few of the films, like "Alice in Wonderland," merely furnish wholesome enjoyment; but in the main, each has its distinct educational mission—a mission, however, not solely for the children.

It has been estimated that 300,000 people attend the commercial moving picture shows of Wisconsin every night. There is no reason why a goodly number of them should not go to the school house for a better and more educational entertainment—no reason except the failure of the school to supply it. Now that the university has undertaken to lend the lantern slides, films, and lectures to go with them, there is no reason why the opening of the school house to adults should not receive a great impetus. The university service of 35 different programs would cost hundreds of dollars if secured through private concerns. But, by "routing" it in the most economical way, the State transports it from place to place at a cost of about ten or fifteen dollars for each city for the whole series of programs. The teacher who makes use of this new opportunity will have little trouble with the truant problem. Neither will he lack for a means of bringing adults to his social center meetings.

THE COMMUNITY INSTITUTE.

The get-together spirit is also fostered by the holding of community institutes, which are aimed at the promotion of welfare interests such as health and recreation. The Farmers' and Business Men's Institutes are useful in promoting the monetary interests; but they have not the distinct purpose of emphasizing the wider humanitarian interests and of discussing local needs and remedies.

The first of these institutes was held in the German farm community of Sauk City, and was so largely attended that no building could be found to hold the crowds. As the German paper said, "the streets looked as if there was a circus or fair in town." Last year seven such institutes were held, and as many more are booked for this year. Thus in fostering the "we spirit," the university encourages and directs the organization of all sorts of local clubs. It sends out all sorts of travelling exhibits and holds institutes with bakers, teachers and philanthropists.

THE MACHINE OF UNIVERSITY EXTENSION.

The social center organizer goes out and tells people how to make their

school house the real community club house. The community music director starts them to singing. The moving picture man takes them to distant lands and into the realms of science, history, and industry. The Debating Department helps them to intelligent discussion and stimulates their interest. And the lecturer arouses the desire for individual self-culture, which correspondence study can satisfy. This is the process which takes place when the "university goes to the people." Thus it is that there are as many people taking university courses in their homes as there are in the dormitories and rooming-houses in Madison.

New methods for stimulating and satisfying the desire for things educational are continually being devised. Adults are now taking advantage, more and more, of the resources of the university which their taxes support, and which was primarily established for their children. If there is one maxim that applies above all others to University Extension, it is the homely phrase that "one is never too old to learn." Adults in this day and age are having a second chance at an education. The distinct educational product of the Twentieth Century, thus far, has been the development of the machine of University Extension, by which the university reaches out further and further into the lives of the great majority, giving to each some measure of that intellectual inspiration and that wider viewpoint which are fundamental to life itself.

Hope's Quiet Hour.

(Continued from page 2115.)

disguise. We need faith, patience, and unselfish love, if we are to follow the star of hope through the darkness, until it leads us unto the Presence of Him Who came to light up the world with the glory of love.

This is a practical matter. We can have a happy Christmas if we go about our preparations for it in the right way. When Judson was once asked whether he had been more influenced by "faith" or "love" in going as a missionary to Burmah, he said that there seemed little of either, but one thing did influence him greatly. These were his words: "I was almost disheartened, everything looked dark, the way was not open, the field was far distant and in an unhealthy climate. I knew not what to do. All at once Christ's 'last command' seemed to come to my heart directly from heaven. I could doubt no longer, but determined on the spot to obey it at all hazards, for the sake of pleasing the Lord JESUS Christ."

What a simple yet beautiful rule of life. Let us try to please our Master, not only on His Birthday, but all the year through. Then we shall find that the spirit of Christmas is able to light up the darkest times of loss, pain or anxiety. Each day and each hour will be offered to Him. Then He will not be like a friend who only comes as a Christmas guest, or writes only once a year, but He will abide with us until our day on earth is spent—and will go out with us through the short darkness into the brightness beyond.

The prophet Jeremiah puts our desire into very beautiful words: "O, the hope of Israel, the Saviour thereof in time of trouble, why shouldest Thou be as a stranger in the land, and as a way-faring man that turneth aside to tarry for a night? Why shouldest Thou be as a man astonished, as a mighty man that cannot save? Yet Thou, O Lord, art in the midst of us, and we are called by Thy Name; leave us not."

As a nation, we are called by the Name of Christ, but each of us must find the King for himself or herself. Our Lord has many different ways of leading seeking souls—but we all need our Royal Friend, and He wants to reveal Himself more and more clearly to each of us.

"Be it star, or cross, or radiant form unknown,
That symbol o'ershadowing
Shall be to each soul, as if for that soul alone,
The sign of the coming King."

DORA FARNCOMB.

DECEMBER



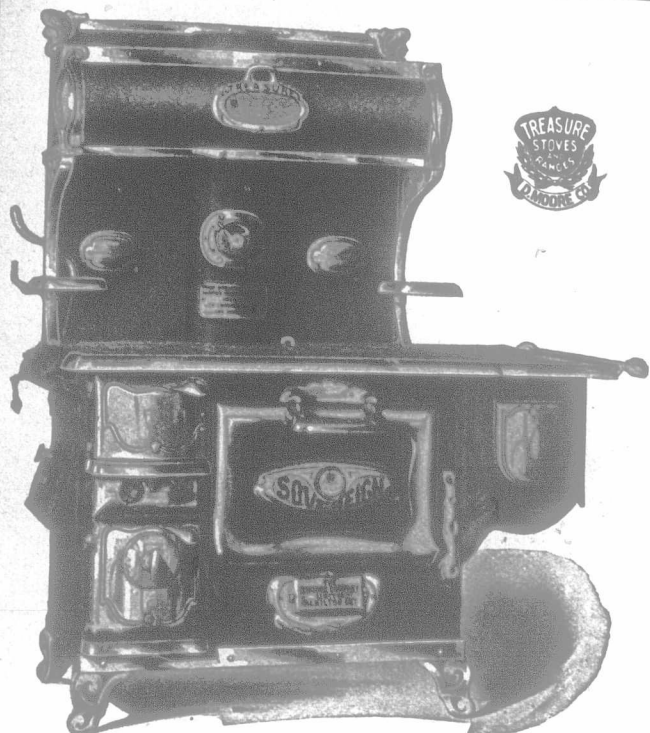
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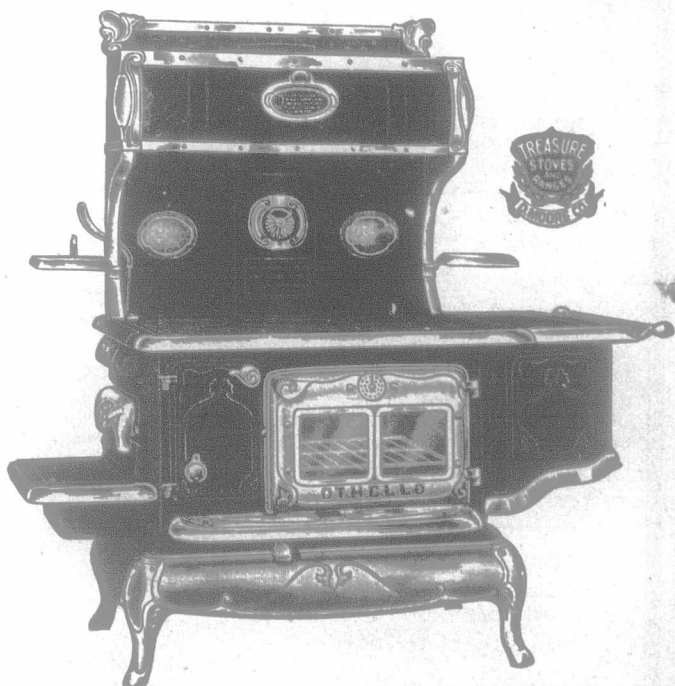
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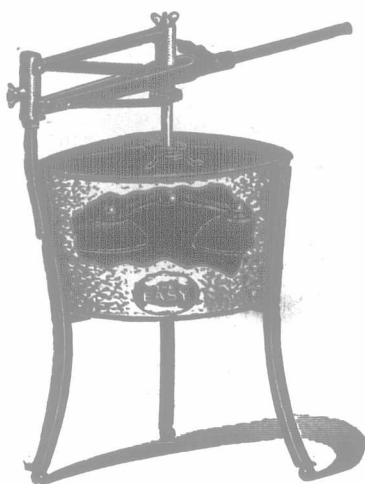
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The Principle is Right.

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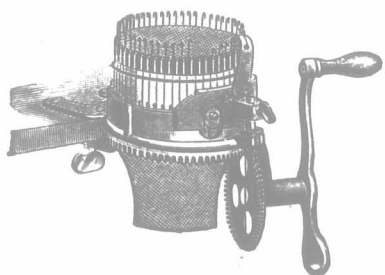
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Chiclets

REALLY DELIGHTFUL
THE DAINTY
MINT-COVERED
CANDY-COATED
CHEWING GUM

Please mention "The Farmer's Advocate."

The Windrow.

Two thousand trunks and suit-cases abandoned in Germany by citizens of the United States when the War broke out, arrived in New York last week. Many are still missing, but will probably arrive during the weeks to come.

A brilliant lawyer, Mrs. Annette Abbott Adams, has been appointed Assistant United States Attorney of San Francisco, and is the first woman to hold such a position in the United States.

Six motor ambulances to be used at the front have been presented to the British Medical Corps from the American Women's War Relief Fund.

"And if it happens, if the nations that now are bent upon crushing and humbling one another, shall see more nearly eye to eye, in a happier day, may not mankind hope and with reason expect that a yet deeper and mightier change of mind and of heart shall sweep away the whole horrible expectation, programme and engine of war? May not the whole world give itself, in joy and without misgiving, to the perfection of social efficiency directed upon the nobler work of emancipating man from all remaining bondage, of poverty, ignorance, and wrong? Why need we doubt?" — The Independent.

Neither initials nor Christmas greetings will be permitted on packages sent to the starving Belgians. This precaution is enjoined by the officials for fear of possible military code messages.

In regard to Leonardo Da Vinci's study of The Christ, a reproduction of which appears in this issue, a famous art critic says, "The singularly beautiful 'Head of Christ,' now in the Brera Gallery at Milan, is the original study for the head of the principal figure in the fresco painting of the 'Last Supper.' In spite of decay and restoration, it expresses the most elevated seriousness, together with Divine Gentleness, pain on account of the faithlessness of His disciples, a full presentiment of His own death, and resignation to the will of His Father." The "Last Supper," Leonardo's masterpiece, was painted during 1496-98, for the end wall of the Refectory of the Dominican Convent of S. Maria delle Grazie at Milan. It was, unfortunately, painted on a badly-prepared stucco ground and soon began to deteriorate; moreover, in 1652, the monks cut away a part of the fresco, including the feet of Christ, to make a doorway, and in 1796 Napoleon's cavalry, contrary to his orders, turned the Refectory into a stable, and pelted the heads of

the figures with dirt. Several times the picture has been "restored," yet, in spite of abuse and the tinkering of other hands, all faded and marred as it is, it still remains one of the most famous, if not the most famous picture in the world.

For twenty years a celebration of Christmas, with a tree and a dramatic entertainment, has been given on Quaker Hill, New York. For this community the Christmas play has the same value as the Passion Play at Oberammergau has for Europe. It is a religious meeting, and its influence is highly moral. Yet it is a play, presented by country people, on a stage, with footlights and curtains, in regular acts and scenes.

Every year the month of December on the Hill is filled with rehearsals, and the last week all the leaders are busy with bringing the tree which is to stand by the stage, decorating it, preparing the presents and the candy and oranges for every child, Catholic and Protestant, in the community. The sections of the stage are got down from the horse sheds, the curtains from a neighbor's attic, the tinsel and glitter, too; and the footlights are put in place. The getting ready is as good as the play, for those who have it in charge.

The Hill is better in drama than in music, but there is always a musical part in the celebration. The children of the Quakers are good actors, but poor singers. Their ancestors did neither act nor sing. The one is as religious as the other. Neither music nor drama is essential. Each of them has served Christian use.

The use of the Christmas play is to unite the whole community. Quaker Hill has no village on it, nor even a cluster of houses. It is a long road following the broad top of a fertile ridge. "Where do all the people come from?" the visitor asks at church-time. If the people on the Hill like anything, they come together in spite of distance, cold, or bad roads. If they disapprove, they withdraw into their own houses and their own affairs, beyond recall. They become a community by frequent assembly. They become very unneighborly without it. Eighteen years ago there were families within one mile of one another who were not acquainted. The church has united them all in common living interests by taking measures to assemble them.

On the tree are many jesting messages for the best-known members of the community. The play itself combines the spirit of Christmas with mirthful action and frequent local references. The musical members tell the perennial story of the Saviour's birth.

Protestant and Catholic assemble for the Christmas play and Christmas tree. It is the one time of the year when no one is too busy, and all are accustomed to meet. The spirit of the occasion pervades the whole of the year. The Catholic and the Protestant, on that



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St. Lawrence granulated white pure cane sugar is packed in three sizes of grain—fine, medium and coarse, in 100 lb., 25 lb. and 20 lb. sealed bags, and 5 lb. and 2 lb. cartons.

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Cream of the West Flour

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Cream of the West (for bread)	\$3.40
Toronto's Pride (for bread)	3.15
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Cream of the West Wheatlets (per 6-lb. bag)	.35
Norwegian Rolled Oats (per 90-lb. bag)	3.10
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Bullrush Bran	\$1.35
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Whole Manitoba Oats	1.60
Crushed Oats	2.00
Chopped Oats	2.00
Whole Corn	1.65
Cracked Corn	1.75
Feed Cornmeal	1.65
Whole Feed Barley	1.90
Barley Meal	1.95
Oatmeal	1.90
Geneva Feed (Crushed Corn, Oats and Barley)	1.90
Oil Cake Meal (old process)	1.80

Special prices to farmer's clubs and others buying in carload lots.

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Everything that ordinarily requires hard scrubbing quickly gives way to its extra cleaning power.

Many other uses and Full Directions on Large Sifter Can—10c

DON'T BE WITHOUT IT



night, see themselves simply as Christians, and the fine development of personal character in the Catholic families has made a deep impression on this old Protestant community.

This recreative enterprise has been one means of recreating this old neighborhood. It has given to members of every family a larger whole to live in. It is just as necessary to have neighbors as it is to have parents and brothers and sisters. To love one's neighbor even half as well as oneself is dependent on knowing him. There can be no kindly feeling even in the household unless members of the household have kindly relations outside. Jesus rested the Christian law on neighborly, not on family, affection.

Recreation in the country does not need to be sweaty. No gymnasium is required. The essential is talk and laughter, and frequent meetings, under Christian leadership. Such recreation is one of the few most powerful means of social reconstruction. Dramatic entertainment can be used for good as well as evil, especially in country life.—Country Church Series, Presbyterian Board of Home Missions, U. S. A.

The United States has truly joined hands with Canada in efforts to send a little good cheer to war-stricken Europe, during this Christmastide of 1914, and not only the soldiers have been remembered, but the little children to whom Christmas means so much. "There is going to be a Christmas after all," says The Independent, "for the children." To be sure, not quite like other Christmases with their gaily-decorated trees, their big wax candles or time-honored mistletoe, or the stockings and wooden shoes put out for old Kris Kringle or Santa Claus to fill, but a real Yule-tide nevertheless, with candy and nuts and toys and warm bits of clothing for the surprised little folk on Christmas morning.

And it is American children and American mothers, thanks to the thought of one little girl, that are thus going to play Santa to their friends across the winter seas.

It was little Natalie Hammond that started the War Children's Christmas Fund. After this grown-up little daughter of Mrs. John Hays Hammond had struggled through the big, awkward pages of the newspaper to read of the sufferings of the diminutive war refugees in Belgium and France, she said to her mother:

"Mama, I don't want you to give me anything for Christmas; send it all to those poor children."

And because Mrs. Hammond was a sympathetic, generous-hearted mother who understood other mothers, who had little children, Natalie's wish fell on fertile ground. Since then from all over the country money and gifts have been rolling together; girls and women have been busy everywhere,—in women's clubs, Sunday schools, in the theaters between acts, even in Blackwell's Island prison,—all making gifts for the homeless little folk of Europe. One woman in Western New York sent 300 barrels of big red pippins. The result is a shipload of good things, which will arrive in time to make many little hearts merry when Christmas Day comes.

There is no manufactory in the world which is to-day as much a center of interest as the Krupp Works, in Essen, Germany, whose development, after the first few years, has been almost phenomenal. In 1811, Frederick Krupp, on borrowed money, rented a stone building and began the manufacture of cast steel. After his death the business was carried on by his son Alfred, with but indifferent success, until 1851, when the exhibit by the firm, at the Great Exhibition in London, of a solid, flawless ingot of cast steel weighing two tons, made a sensation in the industrial world. In 1847 the first 3-pdr. muzzle-loading gun of steel had been made at Essen. Subsequently the business increased with extraordinary rapidity, and Alfred Krupp became known as the "Cannon King." He died in 1887, and was succeeded by his son, Frederick Alfred Krupp, who, in turn, greatly extended the works, leasing, in 1896, the "Germania" shipbuilding yard at Kiel. In 1902 this yard passed into complete ownership of the firm. On the death of Krupp, in the same year, his two daughters became the

richest women in the world. In 1906, the elder of the two, Bertha, the chief shareholder in the company, was married to Dr. Gustav von Bohlen and Halbach, who then received the right to be called Krupp von Bohlen and Halbach. The younger daughter, who is still unmarried, spends much of her time inspecting the vast works, to parts of which no visitor has ever been admitted.

In addition to the ship-works, three coal mines have come under the control of the Krupp Company. Last year the great works alone consumed 3,000,000 tons from these mines.

To accommodate the great number of workmen, "colonies" have grown up about Essen, model settlements established by the Krupps, and provided with libraries, schools, clubs, etc. Indeed, so comfortable are the employees and their families, and so high are the wages paid, that strikes have been quite unknown. A week before the war broke out, the ordinary number of workmen, 40,000, was increased to 75,000. Naturally the demolition of the Krupp works will be one of the terms of peace insisted upon by the Allies in case they win out, as they confidently expect to, in the War.

Roads to Insanity.

The New York State Charities Aid Association has published a pamphlet, "The Prevention of Insanity," which shows that a large per cent. of insanity is entirely preventable, and comes from the former actions and thoughts of the patients themselves. It is not inherited, and not inevitable, but is the result of habits that need not be formed at all.

For example, paresis, one of the worst and most hopeless forms of insanity, is, in nine cases out of ten, brought on by vicious living. Over one-fourth of all cases of insanity observed in the State hospitals of New York owe their mental derangement to alcohol. Overstrain and worry are responsible for another group of cases. Then there are many who go insane through "bad mental habits," which means excessive brooding upon oneself, forming what is called among alienists, the "shut-in personality."

Down these roads to insanity many people journey every year. There is not the slightest reason why they should, except their own choice. No human being is obliged, either by heredity or circumstance, to drink, to be vicious, to worry, or to concentrate all thought on self. Sin is the guide that leads down all these roads, for all these tendencies are alien to righteousness. In these sad records of wrecked minds, the old Bible warning that "the wages of sin is death," is driven home with startling clearness. Righteousness is the health of the soul—its "wholeness" or "holiness." Joy and peace and hope are the mental tendencies that the gospel imparts. "For God hath not given us the spirit of fear," says the Apostle Paul, "but of power, and of love, and of a sound mind." (A.V.)—Forward.

Mrs. MacDonald, who was giving a supper to a very chic cousin from Ottawa, had the misfortune to have her waitress fall suddenly ill on the very day of the party.

A green hand had to be pressed into service. All day Mrs. MacDonald drilled her in the removal of courses and the use of forks and spoons.

At the supper table, the cousin, talking earnestly to the man on her right, picked up the wrong fork.

She felt a touch, and the new recruit's voice whispered: "That ain't the right fork, Miss. For God's sake drop it quick 'fore Mrs. MacDonald sees you!"

With the boundless enthusiasm of his kind, the food faddist harangued the mob on the marvelous results to be obtained from eating nut butter and a few other things like that.

"Friends," he cried, swelling visibly and clapping his chest, "two years ago I was a walking skeleton—a haggard, miserable wreck. What do you suppose brought about this great change in me?"

He paused to see the effect of his words. Then a voice rose from among his listeners: "Wot change?"

New

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News of the Week

Private Arthur William Watt, a Jersey Islander who has been living in Toronto for the past two years, but who went to the front with the Royal Munster Fusiliers, has been awarded the Victoria Cross for conspicuous bravery in saving the life of a French officer from drowning, under a rain of bullets, during the battle of the Aisne.

The King of Abyssinia has offered to send 200,000 men to the help of the British in Egypt, in case of invasion by the Turks. It has been officially announced that the Australians and New Zealanders en route to England have been detained in the Levant for further protection. It is also understood that Germany has failed utterly in her attempt to influence the Egyptians to rebel against the British occupation.

The German Government, it is reported, has decided to levy on Belgium a war tax of \$7,000,000 per month, in addition to the fines imposed on individual cities.

But little decisive news comes from the fighting area in Europe. In the West, the Allies' policy of holding the lines still obtains, for the most part, although they report a further advance in Flanders and in Alsace than at any time since the war began. In Alsace, the capture of Aspach-le-Haut, and Aspach-le-Bas have brought the French almost to the Rhine. . . . In the Eastern zone, the Austrians succeeded in occupying Belgrade on December 2nd, a step towards their plan of getting control of the railway between Belgrade and Constantinople. The Germans also report having gained possession of Lodz, and that the fighting is now concentrated about Lowicz. More reassuring is the news that Roumania is entering the war on the side of the Allies; also that from Copenhagen, which states that Germany has been obliged to call up the second line of the Landsturm,—men between 17

Gift Furniture

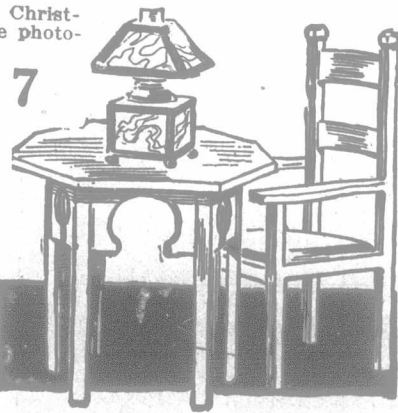
Hundreds of the best suggestions for Christmas presents will be found in our large photo-illustrated

Catalogue No. 7

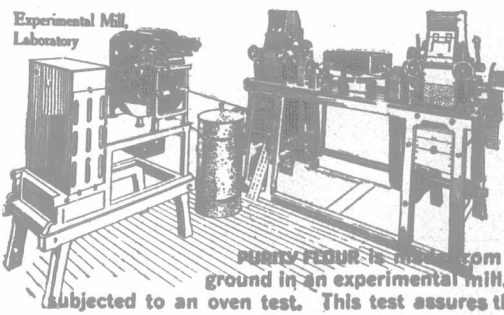
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PURITY FLOUR is made from wheat of which samples are first ground in an experimental mill. The flour thus obtained is then subjected to an oven test. This test assures the housewife of a uniform product.

PURITY FLOUR

3 More Bread and Better Bread

and 45 who, for any reason, have received no military training. Latest reports state that the officers of the Landsturm are refusing to serve.

A Yule-tide Offering.

By Louella C. Poole.

Again the merry Yule-tide comes,
The Day of all the year;
The pealing bells, the mistletoe,
The blazing Yule-log's cheer
Proclaim the Christmas festival;
O now let every voice
In accents glad His praises sing,
And every heart rejoice.

May peace prevail; it is most meet.
This anniversary morn
That marks the holy Day of days
The Prince of Peace was born,
That all should dwell in unity,
That earth should know no war—
O may the white-winged dove of peace
Brood o'er us evermore!

May each heart beat with quickened love
For man and bird and beast,
Remembering Him who ministered
Unto the very least
And humblest of our Father's flock,
Who marked the sparrow's fall,
Who as a Babe was cradled with
The cattle in the stall.

And now as loving messages
And precious gifts abound,
And at the hospitable board
The loving-cup goes round,
What nobler gift to offer Him,
To-day, with willing mind,
Than grateful hearts filled with true love
For bird—beast—all mankind?

Trouble is hard to bear, is it not?
How can we live and think that any
one has trouble, and we could help them
—and never try?—George Eliot.

"I got this cup for running."
"Whoja beat?"
"The owner and six policemen."

Our serial story, "Peter," will be continued next week, as usual.

Mail this Coupon To-day

MESSRS. CATESBYS LTD. (of London,) Dept. "A," 119 Wellington St., Toronto, Ont.:

Please send me your new season's Style Book and 72 pattern pieces of cloth. I am thinking of buying a suit—overcoat.*

Full Name

Full Address

*If you only want overcoat patterns, cross out the word "suit."
If you only want suitings, cross out "overcoat."
London "Farmer's Advocate." Coupon No. 2.

A Plain Talk to Men Who Read The Farmer's Advocate

Now is the time when every dollar counts. A dollar saved now means an extra dollar for the wife and children. Or, if you are not married, a dollar to put by "against a rainy day."

Why, therefore, should you pay a big price for your fall or winter suit and overcoat, when you can buy them from us at about one-half what you would ordinarily pay.

You've heard that clothing is cheaper and better in England and you certainly know that English fabrics are the finest in the world.

Think, then, of the advantage of securing a suit made of the best English woollens, cut in the latest Canadian, New York or London Style (whichever you prefer), and tailored to your individual measure, delivered to your door all duty and carriage charges prepaid, for only one half what you would pay if you bought in Canada.

GET OUR PATTERNS AND BE CONVINCED

Now, to prove to you that this is so, we will, upon receipt of the above coupon properly filled out, send you our Style Book, 72 pattern pieces of English suitings, and a letter which explains all about our system of doing business.

When we tell you that in the past six years we have made nearly 10,000 suits for Canadian customers, who are ordering from us year by year, you will realize that we must be giving exceptional value or we couldn't be doing such a big business.

Sit down right now; fill out the coupon above, mail it to us and we will send you the patterns by return, so that you can judge of the values offered for yourself.

If you don't want to cut this paper, send a post card of letter, asking for suit or overcoat patterns, or both, and we will send them right away. But to get them, you must mention the London "Farmer's Advocate."



CATESBYS Ltd.

(of Tottenham Court Road, London, Eng.)
DEPT. A.

119 West Wellington St., Toronto

\$12.50 BUYS
The "BURLINGTON." This is the most popular style of suit worn by well-dressed men in Canada. The materials used are specially selected for the shape of suit. Duty free and carriage paid.

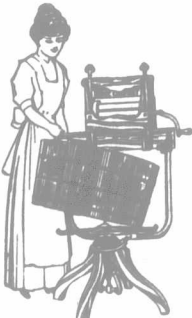
Make Your Wife Happy This Christmas

Have you noticed how the men have their binders, mowers, harrows, seed drills, and lots of other machinery to save them labor, but generally overlook any labor saving machinery for the house because they do not come in direct contact with it.

Very few men realize the hard backbreaking work "Wash Day" means to a woman—just let them try to do one week's washing at the wash board then they would know.

You can easily save your wife all this hard work without it costing you a cent—by giving her a

"1900" Gravity Washer



Washing has broken down the health of more women than any other occupation known. It keeps the doctors busy and fills the hospitals with invalids. The "1900 Gravity" pays for itself in the saving of doctors' bills and medicines alone.

It saves doctor's bills, work and worry—washes a whole tubful in six minutes as spotless and clean as new and with no wear.

The price is within reach of everybody and it will soon pay for itself by the saving in wear on the clothes as it is an absolutely frictionless washer. It will wash anything from the heaviest overalls and blankets to the finest

lace or handkerchiefs with ease.
Let us send you one on

30 DAYS FREE TRIAL.

We pay the freight and you may use it for one month free—if after trying it you decide to keep it, you may pay for it at the rate of 50 cents a week. Otherwise simply send it back at our expense and there is no harm done—isn't this a square offer? Let us do this for your wife in time for Christmas. Don't send any money—just the coupon.

TEAR OFF AND MAIL THIS COUPON.

O. V. MORRIS, Manager 1900 Washer Co., Ltd.
357 Yonge Street, Toronto

Please send me FREE 1900 Washer book and free trial offer.

Name

Address



Make Over Your Clothes and Dye Them

When material is too good to throw away—make it over and dye it like new with

Maypole Soap *The Easy Home Dye*

This is war time—be economical. 24 colors, 10c package—black 15c.—At your dealers or postpaid with booklet, "How to Dye." Order to-day.

Frank L. Benedict & Co., Montreal

When writing advertisers, kindly mention "The Farmer's Advocate."

Retiring the Work-horse.

That labor is life to the old horse whose days and strength have been devoted to hard and continuous toil, is a fact that is coming to be more frequently noted as the equine veterans are laid off and other methods substituted for horse power. It follows that the fairest and perhaps most humane reward for the old horse who has worked habitually should not be retirement to absolute idleness, but rather that there should be for him a gradual lessening and lightening of the labor to which he has so long been used.

Old Charlie was a gray horse who had been active in the harness for thirty years, working in a lumber-yard. The owner would not sell the faithful old fellow, but retired him on a pension for the rest of his natural life. He was sent away to a pasture, but instead of kicking up his heels and rolling on the ground like a colt, he looked unhappy in an idle life, and so he was. For they took him back to his old stable in the city and to his old stall, and he picked up in health and spirits at once. When the other horses with whom he had done his daily tasks went out to their work in the morning Charlie would tug at his halter and try to get away with them, and so every morning they would put his harness on him and let him go, without cart or load, anywhere he wanted in the lot. This encouraged him with the idea that he was busy and aiding the lumber business as he had done all his life.

The work-horse that is relegated to absolute idleness after long years of service is not unlike the man who is similarly and suddenly retired from active business life. Both quickly become ill at ease, and in many cases pine away and die. Men have prayed that they might "die in the harness," and there not good ground in thinking that under natural conditions such a fate is the happiest and most welcome to the old horse to whom life has been little else than labor? The animals have not had their last say. The old horse, under the force of habit and love for work, teaches eloquently to men the tremendous power of habit, and the beauty and joy of an industrious life.—Our Dumb Animals.

It is Indeed.

In these days of the High Cost of Living the following story is not without a decided point.

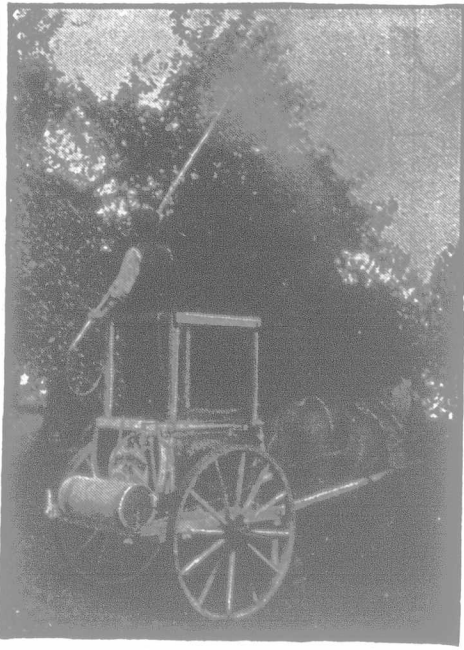
The teacher of a primary class was trying to show the children the difference between natural and man-made wonders, and was finding it hard.

"What," she asked, "do you think is the most wonderful thing a man ever made?"

A little girl, whose parents were obviously harassed by the question of ways and means, replied as solemnly as the proverbial judge:

"A living for his family."—K. P.

A Crop-Saver and Money-Maker



That's what every SPRAMOTOR is to its owner. The outfit shown here is only one of many styles and sizes. It will do all kinds of spraying, whether trees, row crops, potatoes or weed-killing. The horse does all the work, and you simply direct the spray. As many as eight nozzles may be used, and you get 150 lbs. pressure. With this moderate price outfit the largest trees can be properly sprayed. We are sole makers of the

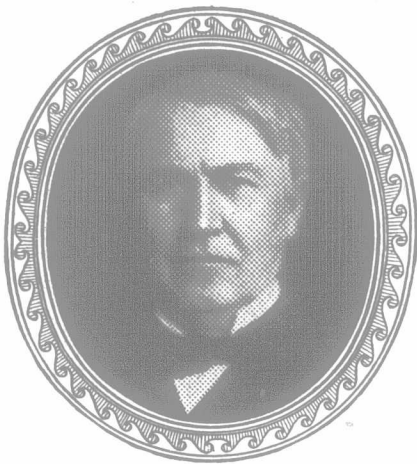
Spramotor

It isn't a SPRAMOTOR unless we made it.

and have concentrated on spraying outfits only, for the past 20 years. We make SPRAMOTORS from \$6 up to \$350, to operate by hand, horse or gasoline power. The SPRAMOTOR won Canadian Government Spraying Contest at Grimsby, Ont., against eleven other makes. It wins every year in field and orchard against all other makes. Whether you buy a SPRAMOTOR or not, you are entitled to a copy of our valuable treatise on crop diseases, fully illustrated, absolutely free. Tells how to spray, what to spray and when, giving facts, figures and photos.

Write us to-day and get your copy by return mail. If you will state briefly your spraying needs, we will send details of a SPRAMOTOR that will fit your requirements exactly.

B. H. HEARD SPRAMOTOR, 106 King St., London, Canada



The Wizard who put Music into millions of homes.

As you sit in your own home and listen to the stirring strains of a military band—or the liquid, luscious notes of a far famed singer—do you realize the thanks that you, and all other music lovers, owe to Thomas A. Edison? As you know, Mr. Edison invented sound-recording and sound-reproducing instruments. It was due to his genius that millions of homes are able to enjoy everything in music.

It was due to Mr. Edison's efforts that you—no matter where you live—may have the great artists, the famous bands, the cleverest entertainers, the brightest public speakers, right in your home.

For more than thirty six years, Mr. Edison has developed and improved the Edison Phonograph and Edison Records.

The Edison Phonograph today—with its diamond reproducing point (requiring no needles)—has a softness, a richness, a velvety smoothness, a wealth of delicate overtones, that cannot be obtained with any instrument using metal needles which must be changed with every record.

You really must hear the Edison to appreciate it to the full.

There are Edison dealers everywhere. Go to the one nearest you and ask for a free demonstration, or write us for complete information today.

Thomas A. Edison Inc., Orange, N. J.

Alma (Ladies) College

A Christian college—home, health and education.

For prospectus and other information, write to R. I. Warner, S.A., D.D., St. Thomas, Ont.



Learn to Stuff Birds

Do you ever hunt or fish? Be sure to write today for our free book. Find out how to stuff and preserve birds, animals and game birds and tan skins. The business is very fascinating and profitable. Every sportsman should have this book. Don't go another day without it. Book is free and prepaid.

Write Today! Every trophy you take is valuable. You can make big money mounting for others. Write below and get free book. Act now. Prof. J. W. ELWOOD, Taxidermist 7649 Elwood Bldg., Omaha, Neb.

An Undeveloped Spot.

Deliver me, if you please, from the dainty man. I've known a few big men. They all, without exception, hold the little niceties of social etiquette and the dainty arrangement of living appointments very lightly. They hark back easily and naturally to the primitive—they could not be great if they did not. There is in them a large comprehension of things that accepts life as it is, making them at home in the superfine quarters of the elegant hotel, in the millionaire's private residence, the cowboy's ranch or the plain farmhouse of the Middle West. Whenever a man becomes entirely devoted to luxurious ways of living his virility, mental and physical, is deteriorating.

What is the matter with women then? What makes them long for things, and grow bitter and morbid because they can't have them? Why does the cook want a willow plume, and the renter's wife on a farm wish for high-heeled shoes and lace curtains, and bitterly resent it if her husband's employer's wife doesn't make her her boon companion? It is because there is an undeveloped spot in the female understanding—especially in the understanding of the American female who has never learned the relative value of things.

Naming the Baby.—First I thought I'd call him Caesar; but my Uncle Ebenezer said that name was dead unlucky—wasn't Julius Caesar slain? Then I said "I'll call him Homer;" but my second cousin, Gomer, answered:—"Homer was a pauper, and he wrote his rhymes in vain." Long I pondered, worried greatly, seeking names both sweet and stately, something proud and high and noble, such as ancient heroes bore. "I shall call him Alexander—" but an innocent bystander muttered, "Alek was a tyrant, and he splashed around in gore." And my aunts said—"Only trust us, and we'll name him Charles Augustus, which is princely and becoming, and will end this foolish fuss." But my Cousin James objected—"Nothing else can be expected, if you give him such a handle, but that folks will call him Gus." "Let us call the darling Reggie," said my cheerful sister Peggy, "which is short for Rex or Roland, or some other king's name." But my Uncle George protested. "Surely," said he, "you but jested; never yet did youth named Reggie scale the shining heights of fame. Thus it was for weeks together, and I often wondered whether other parents ever suffered as I did upon the rack. All my uncles and my cousins and my aunts gave tips by dozens, so I named the babe John Henry, and for short we call him Jack.

"I am not a Suffragette," cried an indignant witness at the West London Police Court. "I am a respectable married woman."

"To keep milk from turning sour you should leave it in the cow."

LIST OF
Dec. 16th.
Kerwood, O.
Dec. 16th.
W. A. Doug
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Dec. 22nd.
St. Thomas,
Dec. 30th.
Breeders' Cl
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Jan. 20, 1
Paris, Ont.;
Feb. 12th
Georgetown,

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\$7; bulls, \$5
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Hogs were 2
watered; \$7.
\$6.90 f. o. b
REVIEW OF
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Sheep
Calves
Horses

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\$7.75 per
than the price

Gossip.

LIST OF SALE DATES CLAIMED.
 Dec. 16th.—Walter Bowley, R. R. No. 1, Kerwood, Ont.; Ayrshires.
 Dec. 16th.—F. Martindale & Son, and W. A. Douglas, Caledonia, Ont.; Short-horns.
 Dec. 22nd.—E. C. Gilbert, R. R. No. 7, St. Thomas, Ont.; Holsteins.
 Dec. 30th.—Southern Counties Ayrshire Breeders' Club, J. L. Stansell, Sec.-Treas., Stratfordville, Ont.; Ayrshires.
 Dec. 30th.—C. V. Robbins, R. R. No. 3, Wellandport, Ont.; Holsteins.
 Jan. 20, 1915.—A. Kennedy & Sons, Paris, Ont.; Holsteins.
 Feb. 12th.—P. D. McArthur, North Georgetown, Que.; Ayrshires.

Markets.

Toronto.

At West Toronto, on Monday, December 7th, receipts numbered 157 cars, comprising 3,327 cattle, 864 hogs, 1,521 sheep and lambs, and 164 calves. The market opened up strong, especially for the best grades. One load of steers, 1,300 pounds each, sold at \$8.40; choice steers sold at \$8.25 to \$8.40; good, \$7.90 to \$8.25; medium, \$6.75 to \$7; common, \$6 to \$6.50; cows, \$3.50 to \$7; bulls, \$5 to \$7.60; stockers and feeders unchanged, at \$4.50 to \$6.50. Milk-cows, \$55 to \$100; calves, \$5 to \$10. Hogs were 25c. lower, at \$7.25 fed and watered; \$7.50 weighed off cars, and \$6.90 f. o. b. cars at country points.

REVIEW OF LAST WEEK'S MARKETS
 The total receipts of live stock at the City and Union Stock-yards for the past week were:

	City.	Union.	Total.
Cars	64	553	617
Cattle	855	8,183	9,038
Hogs	995	13,572	14,567
Sheep	1,056	5,757	6,813
Calves	44	491	535
Horses	14	19	33

The total receipts of live stock at the two markets for the corresponding week of 1913 were:

	City.	Union.	Total.
Cars	32	606	638
Cattle	865	9,161	10,026
Hogs	111	9,750	9,861
Sheep	421	7,297	7,718
Calves	9	888	897
Horses		47	47

The combined receipts of live stock at the two markets for the past week show a decrease of 21 cars, 988 cattle, 905 sheep and lambs, 362 calves, and 14 horses; but an increase of 4,706 hogs, compared with the same week of 1913.

The live-stock market for the past week was one of the best in a long time. Trade in every department was good each day, even on Monday, when it rained all day, and over 4,000 cattle were on sale, nearly all of them found ready sale at excellent prices, when quality is taken into consideration. While there were few choice cattle came forward, the average was better than for several weeks. But all classes sold well, in fact, the drovers made more money out of the canners and cutters which cost them less money, than for the better classes of medium and good. A few lots and loads sold at \$7.75 to \$8, and a few odd cattle of prime quality sold at \$8.25 to \$8.50. Stockers and feeders held steady, at firm values. Milkers and springers were also in demand, which was greater than the supply, which caused values to be high. The figures paid for them were not any higher, but the quality of the cows for which the high prices were paid was not as good as it was when the same prices were paid some little time ago. Not enough came forward to fill the orders that some of the buyers had received. Veal calves sold at steady values, as, poultry being cheap this season, and especially the past week, has largely displaced the veal. Sheep and lambs of choice quality sold at higher values than ever at this season of the year. Black-faced Shropshire lambs of 80 to 90 lbs. weight, sold at \$8.25 to \$8.75 all week, thus giving the Ontario farmer a lesson that the day of the heavy, long-wooled sheep is practically over from the butcher's standpoint, as the coarse, heavy lambs sold at \$7 to \$7.75 per cwt., or \$1 per cwt. cheaper than the best bred lambs, such as our

"Let George Do It"

Is that your attitude in regard to insisting on "Made in Canada" goods? Are you inclined to think that your own purchases are so small as to be of no importance, or is it because you are thoughtless, and neglect to say "Made in Canada"?

If you are, just remember that it is every Canadian's duty to help now.

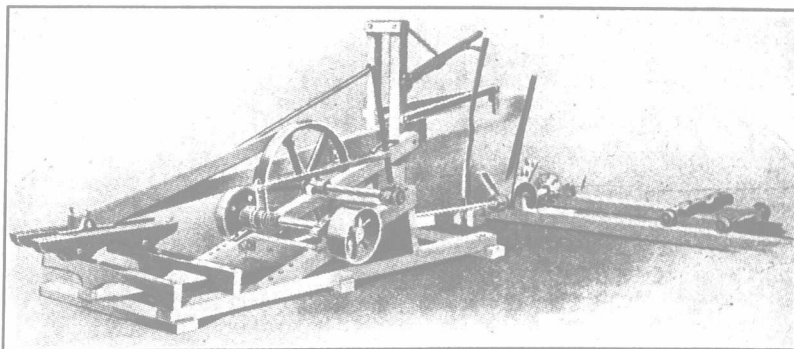
You, or you and your family, spend more than 55 cents per day—yet that amount spent each day by every Canadian for "Canadian-made" goods is sufficient to keep every factory and every workman in Canada busy.

You see, your share is important. "Let George do it" if you like, but—

Say "Made in Canada" Yourself.

17a

HANDY AND STRONG



DRAG SAW MACHINE

Our new Drag Saw Machine has all the best improvements. Is handy to operate, the levers being placed so the operator can manipulate the saw quickly and do an enormous amount of sawing. The best machine in large, heavy timber. If interested, write for descriptive leaflet.

THE M. MOODY & SONS COMPANY, Terrebonne, Que.

Shorthorn Herd-headers

The young bulls we are offering at present are an exceptionally fine lot, some of them right ready for service, and big, thick, smooth, fleshy fellows. They are from heavy milking dams of first-class breeding.

Correspond with us if you want something good.

Geo. Gier & Son, R.R. No. 1, Waldemar, Ont.
 Long-distance Telephone

If You Have Cream to Ship

and are not already a patron of Ontario's largest creamery, write for particulars re shipping, etc. We supply cans, pay express and remit promptly for each shipment. The men in charge of this department of our business are all experienced men, graduates of the O. A. C., and we can guarantee that our test will, in every case, compare with the official test. GIVE US A TRIAL SHIPMENT.

SILVERWOODS, LIMITED, LONDON, ONT.

DEAF

People—thousands who believed themselves completely deaf—are hearing again, clearly and perfectly, with the aid of a remarkable, new scientific invention. Will you try the—

Hearing in the Palm of your hand.



New 8-Tone Mears Ear Phone

at our risk? It is an ingenious inconspicuous little device which has improved the hearing of thousands of sufferers from deafness. It embodies eight different adjustments, any of which can be changed with one touch of the finger to suit any condition of the hearing.

Free Trial Prove its powers at our risk. Will you try a Mears Ear Phone for 15 days in your home, absolutely free? Will you believe the evidence of your own ears? That is all we ask. Send for our free trial offer.

Special Direct Offer The new 8-Tone Ear Phone can be had only direct from our Montreal Offices. To advertise our new direct-selling plan and to introduce the Perfected Mears 8-Tone instrument, we are now making a Special Introductory Offer direct to you. Write at once for particulars.

Valuable Book FREE! on DEAFNESS

Write for valuable book on deafness—mailed free—explains all the causes of deafness; tells how to stop the progress of the maldy and how to treat it. Write at once—now—for this FREE Book and our Special Introductory Offer. Send to-day—now. 1

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 We positively guarantee to train you in your own home, furnish uniform, and assist you to positions paying \$12 to \$25 a week. Send for free catalog and illustrated book of "National Nurses."
 National School of Nursing, Dept. Elmira, N.Y.

Please mention "The Farmer's Advocate."

THE ROYAL BANK OF CANADA

Capital Authorized - \$ 25,000,000
Capital Paid Up - 11,500,000
Reserve Funds - 13,000,000
Total Assets - 180,000,000

HEAD OFFICE: MONTREAL
Branches throughout every Province of the Dominion of Canada

Accounts of Farmers Invited
Sale Notes Collected

Savings Department at all Branches

GRAND TRUNK RAILWAY SYSTEM

DOUBLE TRACK ALL THE WAY

Toronto - Chicago
Toronto - Montreal

Unexcelled Train Service
Highest Class of Equipment

WINTER TOURS to CALIFORNIA, FLORIDA and SUNNY SOUTH

The Grand Trunk Railway is the most direct route from all points East through Canada, via Chicago, Detroit or Buffalo.

FAST TRAINS—CHOICE OF ROUTES

Full particulars and berth reservations at G. T. R. ticket offices.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading.

BARRED Rock cockerels—O. A. C. laying strain; \$1.50 each, or \$2.50 per pair. W. A. Galbraith, Iona Station.

BREEDER of high-class Barred Rocks and Pekin ducks. Two hundred cockerels at reasonable prices. Leslie Kerns, Freeman, Ont.

FOR SALE—Pure-bred stock of White Indian Runner Duck, White Embden Geese, White Holland Turkeys. Apply H. Sider, Marshville, R.R. No. 1, Ont.

FIVE of our White Wyandotte pullets had 1,069 eggs in one year at the International Egg Laying Contest. Some cockerels for sale, bred from these and from some other high-record hens. McLeod Bros., Stoney Creek, Ont.

MAMMOTH Bronze turkeys—Fine, heavy birds; bred from prize stock. R. G. Rose, Glanworth, Ont.

MAMMOTH Bronze Turkeys bred from prize-winning stock. Good healthy birds. W. K. Ritchie, Elmville, Ont.

MAMMOTH Bronze Turkeys—From prize winners; good healthy stock. 4 hens, 21 to 28 lbs.; 7 hens, 15 to 17 lbs.; \$4. W. W. Hodgins, No. 4, Denfield, Ont.

MAMMOTH Bronze turkeys both sexes; choice birds. D. Ashworth & Son, R.R. No. 2, Denfield, Ont.

O.A.C. Bred to lay Barred Rocks and other eggs from Prof. Graham's strain. R. Schuyler, Paris, Ont.

PURE-BRED Bronze Turkeys—Fine, heavy, strong, heavy-boned birds. Pure-bred. Gould's and Snettinger's famous strain. Satisfied customers, everywhere. W. J. Spencerville, Ont.

PURE BRED White and Barred Rock Turkeys for sale, good laying strain. J. H. Turner, Paisley.

WHITE Holland turkeys for sale. Tom Smith, Miss Mary Caldwell, Box 10, Sham, Ont.

CHURCH BELLS

CHIMES AND PEALS

MEMORIAL BELLS A SPECIALTY

FULLY WARRANTED

McSHANE BELL FOUNDRY CO.,

BALTIMORE, Md., U. S. A.

Established 1866



American cousins as a rule produce. Hogs sold at steady values nearly all week.

Butcher Cattle.—Choice steers and heifers sold at \$7.75 to \$8, and a few odd cattle of prime quality brought \$8.25 and \$8.50; good steers and heifers, \$7.25 to \$7.75; medium, \$6.75 to \$7; common, \$6 to \$6.50; choice cows, \$6.75 to \$7; good, \$6.10 to \$6.50; medium cows, \$5.50 to \$6; canners and cutters, \$3.75 to \$4.60; bulls, \$4.75 to \$7, and a few yearling bulls sold up to \$7.25 and \$7.50.

Stockers and Feeders.—Market steady. Choice steers, 800 to 900 lbs., sold at \$6.25 to \$6.50; good steers, same weights, at \$6 to \$6.25; stockers, \$4 to \$5.50.

Milkers and Springers.—Prices ranged during the week from \$60 to \$105 each, the bulk going at \$70 to \$90 each.

Veal Calves.—Choice calves, \$9 to \$10; good, \$8 to \$9; medium, \$7 to \$8; common and grass calves, \$4.50 to \$6.50.

Sheep and Lambs.—Sheep, light ewes, \$5 to \$5.75; heavy ewes, \$3.50 to \$4.50; culls, \$2.50 to \$3; lambs, choice light, \$8.25 to \$8.75; heavy lambs, \$7 to \$7.80; cull lambs, \$6 to \$6.50.

Hogs.—Selects, fed and watered, \$7.50; weighed off cars, \$7.75, and \$7.15 f. o. b. cars. In several instances we heard of 10c. more being paid, but the bulk of the hogs sold at the above quotations.

TORONTO HORSE MARKET.

There has been little doing on any of the horse exchanges. The horses sold at the auction sale at the Union Horse Exchange on Wednesday were generally of light weights, which sold at \$30 to \$90 each. An inspection of horses for the Imperial Army was held on Friday, when nineteen passed inspection and sold at prices ranging from \$160 to \$190 each. Heavy horses, of which there are few being sold just now, were reported at steady values.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, \$1.10 to \$1.12; Manitoba, No. 1 northern, new, \$1.24, track, bay points; No. 2 northern, new, \$1.17; No. 3 northern, \$1.12.

Oats.—Ontario, No. 2 white, new, 50c. to 51c., outside. Manitoba oats, No. 2, 59c.; No. 3, 57c., lake ports.

Rye.—Outside, 88c. Peas.—No. 2, \$1.60 to \$1.65, outside. Corn.—American, new No. 3 yellow, 73c., track, Toronto; Canadian corn, 82c., Toronto.

Barley.—For malting, 68c. to 70c., outside. Buckwheat.—No. 2, 71c. to 73c., outside.

Rolled Oats.—Per bag of 90 lbs., \$3.10 to \$3.25.

Flour.—Manitoba flour—Prices at Toronto were: First patents, \$6.60; second patents, \$6.10; in cotton, 10c. more. Ontario, 90 - per cent. winter-wheat patents, \$4.50 to \$4.70, Montreal.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$16 to \$16.50; No. 2, \$13 to \$14 per ton.

Straw.—Baled, car lots, track, Toronto, \$7.50 to \$8.50.

Bran.—Manitoba, \$25 to \$26, in bags, track, Toronto; shorts, \$27 to \$28; middlings, \$29 to \$30.

CENTRY PRODUCE.

Butter.—Prices were unchanged. Creamery pound rolls, 29c. to 31c.; creamery rolls, 28c. to 29c.; separator dairy, 27c. to 28c.

Eggs.—New-laid, sold at 50c. by the case, and 50c. by the dozen.

Chickens.—New-laid, 16c. to 17c. per lb. Honey.—Extracted, 12c. to 13c. per lb. Beeswax.—Hand-picked, per bushel, \$3.50 to \$4.

Potatoes.—Per bag, 60c. for car lots of Canadians, track, Toronto, New Brunswick, 70c. track, Toronto.

Poultry.—Turkeys per lb., 12c.; spring chickens, 10c. to 11c. per lb. Ducks, 10c. to 11c. per lb.

Geese.—Per lb., 10c. to 11c. for car lots of Canadians, track, Toronto, New Brunswick, 10c. to 11c. track, Toronto.

Wool.—Wool, unwashed, coarse, 17c.; wool, unwashed, fine, 20c.; wool, washed, coarse, 26c.; wool, washed, fine, 28c.

low, No. 1, per lb., 5c. to 7c. Wool, unwashed, coarse, 17c.; wool, unwashed, fine, 20c.; wool, washed, coarse, 26c.; wool, washed, fine, 28c.

FRUITS AND VEGETABLES.

Receipts of fruits and vegetables, domestic and foreign, have been liberal for the past week, especially of the latter. Prices ruled as follows: Apples—Canadian, Spy, \$1 per box, \$2.75 to \$3 per barrel; Russett, 85c. per box, \$2.50 per barrel; Talman Sweet, 75c. per box, \$2.75 per barrel; Baldwin, 90c. per box, \$2.50 to \$2.75 per barrel; Ben Davis, 75c. per box, \$2.25 per barrel; Snows, \$1.50 to \$3.50 per barrel. Bananas, \$1.40 per bunch; cranberries, \$6.50 to \$7 per barrel, \$2.50 per box; late keeping, \$7 to \$7.50 per barrel; grapes, Canadian, 20c. to 28c. per 6-quart basket; grape fruit, Florida, \$2.50 to \$3.25 per box; limes, \$1.25 per hundred; lemons, Messina, \$3.25 to \$3.75 per case; oranges, Florida, \$2.25 to \$3 per box; California navels, \$3.25 per box; pears, 25c. to 40c. per basket; pineapples, \$3.75 to \$4 per case. Vegetables—Beans, \$3.50 to \$4 per hamper; beets, 60c. per bag; Brussels sprouts, Canadian, 35c. basket; cabbages, 25c. to 40c. per dozen; carrots, 50c. per bag; cauliflower, 60c. to 85c. per dozen; cucumbers, hot-house, \$1.75 to \$2 per dozen; onions, Canadian Danvers, \$1.15; lettuce, leaf, 20c. to 30c. per dozen; mushrooms, Canadian, 75c. per lb.; peppers, green, 60c. per basket; parsnips, 60c. per bag; spinach, \$1.25 per hamper; pumpkins, 50c. to \$1 per dozen; tomatoes, hot-house, 18c. per lb.; turnips, 30c. to 35c. per bag.

Montreal.

Live Stock.—The general price for good to fine stock was 6c. to 6 1/2c. per lb., while medium ranged from 5 1/2c. to 6c., and common sold down to 5c. Butchers' cows and bulls ranged generally from 4c. to 6c. per lb. A fair trade took place in canning stock. The bulk of the stock consisted of this grade. Prices were 3 1/2c. to 4c. per lb. Sheep and lambs were steady, and prices were 4 1/2c. to 5c. for sheep, and 7 to 7 1/2c. for lambs. Calves ranged as usual from about \$3 to \$10 each. The feature of the market was the weakness in the price for hogs. Supplies of hogs were more liberal, and prices ranged from 7c. to 7 1/2c. per lb., weighed off cars.

Horses.—Dealers quoted heavy draft horses, weighing from 1,500 to 1,700 lbs., at \$225 to \$300 each; light draft, weighing from 1,400 to 1,500 lbs., \$150 to \$200 each; lighter horses, \$125 to \$150; broken-down, old animals, \$75 to \$100 each, and fancy saddle and carriage horses sold at \$300 to \$400 each.

Dressed Hogs.—Abattoir-dressed, fresh-killed hogs were quoted at 10 1/2c. to 11c. per lb.; country-dressed, 8 1/2c. to 9 1/2c.

Poultry.—Prices were 15c. to 17c. per lb. for turkeys, 11c. to 14c. for chickens and ducks, and 9c. to 11c. for geese and old fowl.

Potatoes.—Choice Green Mountains were quoted at 62c. per bag, carloads, except single bags being 75c. to 80c.

Honey and Syrup.—Maple syrup in tins, 60c. up to 80c. Sugar, 9c. to 10c. per pound. White-clover comb honey, 16c. to 17 1/2c. per lb.; extracted, 12c. to 13c.; dark comb, 14c. to 15c., and strained, 7c. to 8c. per lb.

Eggs.—New-laid, 50c. per dozen; selected cold-storage stock, 31c. to 32c.; No. 1 cold-storage, 29c. to 30c., and No. 2, 25c. to 26c. per dozen.

Butter.—Choice stock, 27c. to 27 1/2c. per lb.; fine, 26 1/2c. to 27c., and seconds, 25 1/2c. to 26c. Ontario dairy, 25c. to 26c. per lb., and Manitoba, 24c. to 25c. Cheese.—September Ontario cheese, 15 1/2c. to 15 3/4c. per lb., and October below these figures. September Eastern cheese, 15 1/2c. to 15 3/4c., October a fraction under.

Grain.—Canadian Western, 58c. per bushel for No. 3, 57 1/2c. for No. 1 feed, and 56 1/2c. for No. 2 feed ex store. Ontario and Quebec No. 2 white oats, 54c. per bushel; No. 3, 53c., and No. 4, 52c. Argentine corn, 82 1/2c. to 84c.

Flour.—Ontario patents, \$6 per barrel in wood, and straight rollers, \$5.50 to \$5.60, bags, \$2.70. Manitoba first patents, \$6.70, seconds, \$6.20, and strong bakers', \$6 in pure.

Milled.—Bran, \$25 per ton in bags, and shorts, \$27, middlings, \$30 including bags, middling, \$35 to \$36 per ton for pure, and \$31 to \$32 for mixed.

Hay.—No. 1 pressed hay, Montreal, ex



Sale Notes

We collect or discount sale notes for farmers.

Notes left for collection are secure against fire or burglary, and the makers are notified of the due date.

When paid, the money goes to your credit without any trouble on your part.

We shall be glad to furnish you with the note forms free of charge.

155

The Bank of Nova Scotia

Capital and Reserve \$17,000,000
Total Assets - \$80,000,000

BRANCHES OF THIS BANK in every Canadian Province, and in Newfoundland, West Indies, Boston, Chicago and New York



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

TERMS.—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

FURTERS.—Rid your place of rats, drive rabbits. Calvin Jewell, Spencer, Ohio.

FARM to rent—First class farm, clay loam, 165 acres cleared land, buildings, fences, etc., the best. Lots 11 and 12 Edgeware Road, Yarmouth, 4 miles from St. Thomas, Ont. None but first class man with means need apply. For particulars address R. W. and M. G. Ballah, R.R. 8, St. Thomas, Ont.

TO RENT—Oakville, few minutes from town and station, fruit and poultry farm, 11 acres; splendid property, at low rental to one who will develop it best. References necessary; possession as arranged. Apply W. H. Smith, Canadian Feather & Mattress Co., Spruce St., Toronto.

WANTED at once for small dairy farm—Farm yearly engagement, single man with some knowledge of Holsteins preferred. Collier V. Robbins, breeder Holstein-Friesian cattle, Wellandport, Ont.

WANTED—A farm of from 150 to 200 acres within 50 miles of Toronto. Must be close to station, church and school, with good water, stables, house and fences. Preferably light clay loam soil. Send particulars to N. J. Anderson, Islington, Ont.

FARM FOR SALE

John Fisher & Co., Lumsden Bldg., Toronto.

Kingston Road farm, west of Bowmanville, 113 acres, fronting on Kingston Road, mile from town; clay loam soil, seven-roomed dwelling, good bank barn (36x30), driving-shed and piggery, good springs, twenty acres maple bush, orchard. Price, \$70 per acre. Easy terms.

John Fisher & Co., Lumsden Bldg., Toronto

UNTEARABLE PANTS \$2.45



These pants are made of a pure wool, dark grey untearable tweed, they are stitched with heavy 6-cord thread, and have heavy drill pockets. Enclose \$2.45, with size of waist and length of leg for sample pair. Sent postage paid. Money refunded if not satisfactory.

THE HENRY TAILORING CO. Stratford, Ontario

Please mention "The Farmer's Advocate."



INCORPORATED 1864

How Much Money Have You Saved?

It does a man good to look at his financial situation squarely once in a while.

A passbook in this strong old Company is the bulwark of thousands of thrifty men and women in London and the County of Middlesex.

When you have saved \$100 or over, and don't expect to use the money for a short time, you are entitled to higher interest.

For a limited time the Huron & Erie offer

4 3/4% for a term of 5 years
4 1/2% and 4 1/4% for 3 years for 1 or 2 years

Interest payable half-yearly.

Call in or write for full particulars.

The Huron & Erie Loan & Savings Company

Main Office:
442 Richmond St.

Market Office:
4-5 Market Square
London, Ont.

T.G. MEREDITH, K.C.
President

HUME CRONYN
General Manager

WANTED

Oat Straw
Mixed Hay
Clover Hay

WRITE FOR PRICES
F. WILMORE

Strachan Ave. Toronto

track, \$20.50 to \$21 per ton; No. 2 extra, \$19.50 to \$20, and No. 2, \$18.50 to \$19.

Hides.—Beef hides steady, at 16c., 17c. and 18c. per lb. for Nos. 3, 2 and 1, respectively. Calf skins, 16c. and 18c for Nos. 2 and 1, respectively. Sheep skins, \$1.20 each, and horse hides, \$1.50 for No. 2, and \$2.50 each for No. 1. Tallow, 6c. per lb. for refined, and 2c. to 2 1/2c. for crude.

Buffalo.

Canada contributed rather freely of cattle last week, and practically everything in the decent killing line came from across the border. Shipments continued to be limited to Canada and New York State, the Canadian offerings being yarded in the main yards, with the State supply landing in the quarantine area in what is known as the Texas or Southern division. Prices on good kinds of shipping steers looked fully a dime to fifteen cents higher the past week than for the week before. Most of the shipping steers went East. On butchering grades the market was not quite so good, although prices remained on about a steady level with the week before. Best steers offered the past week from Canada sold from \$8.80 to \$9.10, the heavier loads not quite reaching 1,400 lbs., but showing good finish. Other steers for Eastern demand from among the Canadians ran generally from \$8 to \$8.75, some very few common and plain kinds running from \$7.25 to \$7.50.

Quotations: Canadian shipping steers—Choice to prime, \$8.75 to \$9.10; fair to good, \$8.25 to \$8.60; plain, \$7.50 to \$8.10. Butchering steers—Choice, heavy, \$8.25 to \$8.50; fair to good, \$7.75 to \$8; best handy, \$8 to \$8.50; common to good, \$7 to \$7.50; yearlings, \$8 to \$9. Cows and heifers—Prime, weighty heifers, \$7.75 to \$8; best handy butchering heifers, \$7.25 to \$7.50; common to good, \$6 to \$7; best heavy, fat cows, \$6.50 to \$7; good butchering cows, \$5.75 to \$6.25; cutters, \$4 to \$4.25; canners, fair to best, \$3.50 to \$3.75. Bulls—Best heavy, \$7 to \$7.25; good butchering, \$6.25 to \$6.75.

Hogs.—While receipts here last week were not as large as the previous week, heavy runs West caused lower prices at Buffalo. Week started with an \$8.50 market, and on Friday prices dropped as low as \$7.35 to \$7.50. Canadian hogs brought up to \$7.75 to \$7.85; roughs, \$6.25 to \$7, and stags, \$5 to \$6. Receipts were 6,700 head, between 4,000 and 5,000 being Canadians. Previous week receipts were 8,150 head, and a year ago, 55,200 head.

Sheep and Lambs.—Prices held to a high level again last week, fore part native lambs selling up to \$9.75, and handy Canadians ranged from \$9.25 to \$9.50. From 90- to 95-lb. Canadian lambs sold mostly around \$9, heavier ones and bucks from \$7.50 to \$8. There was the least outlet for the heavy lambs, handy kinds showing decidedly better sale. Best weights are from 75 to 80 lbs. Sheep were steady the past week, ewes bringing from \$5.25 to \$5.75, as to weight, with cull sheep \$4.50 down. Receipts, 7,200 head, as against 9,950 the week before, and 36,800 head a year ago.

Calves.—Top veals last week ranged from \$12 to \$12.50. Culls \$9.50 down, and grassers \$5 to \$6. Heavy, fat calves were lower last week, \$6.50 taking some that were about the same kind that sold as high as \$7.50 the week before. Receipts, 950 head, as against 800 the preceding week, and 1,975 for the corresponding week last year.

Chicago.

Cattle.—Beeves, \$5.70 to \$10.50. Western steers, \$5.25 to \$8.50; cows and heifers, \$3.25 to \$8.60; calves, \$6.75 to \$9.75.

Hogs.—Light, \$6.40 to \$7.35; mixed, \$6.00 to \$7.40; heavy, \$6.55 to \$7.25; rough, \$6.55 to \$6.70; pigs, \$1.50 to \$7.10; bulk of sales, \$6.70 to \$7.25.

Sheep and Lambs.—Sheep, native, \$5.40 to \$9.10; yearlings, \$6.25 to \$7.30; roughs, native, \$6.25 to \$8.75.

Cheese Markets.

Montreal, finest Westerns, 15 1/2c. to 15c.; finest Easterns, 15 1/2c. to 15c.; Havanthé, Que., 13 1/2c.

"British through and through"

"EMPIRE"

(TRADE MARK REGISTERED)

CORRUGATED IRON

Here's an opportunity absolutely without equal, offered by The Metallic Roofing Co., Limited, to the farmers of Old Ontario to buy the best British-made galvanized iron at cut prices and without a cent to pay in freight to any point in Old Ontario. Nothing flimsy or second-rate about this metal—no Keystone or other foreign-made sheets used whatever.

Now is the time to buy & save money

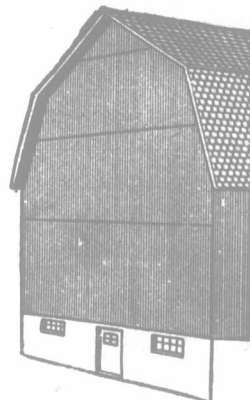
You may never get such a bargain again and this offer is not held open indefinitely. Remember "Empire" Corrugated Iron is British-made through and through—actually mined, smelted, rolled, galvanized and corrugated either in the Mother Country or in Canada.

Our Prices Today

28 Gauge \$3.60 per 100 square feet

26 Gauge \$3.80 per 100 square feet

Freight prepaid to any station in Old Ontario. Terms: Cash with order. Satisfaction absolutely guaranteed. Credit terms can also be arranged.



Support the Empire

Do you wish to be patriotic and keep your money at home to make strong the Empire from within? One way is to use "Empire" when you need Corrugated Iron—and at the same time get big value. Absolutely dependable for uniform fitting, ease in laying, water-tightness and durability. We also furnish Corrugated Ridge Cap, etc. to fit our sheets. Send your order today. You'll be glad you did.

"Eastlake" Metallic Shingles also quoted at \$5 per square less 5% on orders of not less than 3 squares, freight paid to any point in Old Ontario.

Bargain prices also in "Metallic" Ceiling and Wall Plates; Rock and Brick-face siding; Sky-lights; Ventilators, etc. all, British-made goods. Write us to day for illustrated price lists and full information.

The Metallic Roofing Co.
Manufacturers Limited Toronto

Established 1885

BY AUCTION!

G. Sons of Pontiac Korndyke and G. Daughters

Wednesday, Dec. 30th, 1914

I will sell by auction 20 HEAD—15 FEMALES and 5 YOUNG BULLS, nearly all of them yearlings and younger, g. sons and g. daughters of the great Pontiac Korndyke, and out of R. O. M. and R. O. P. dams. You will get them at your own price, for I am forced to sell, and there never was a better bred nor a better individual lot sold under the hammer in Canada. At the same time I will sell a number of REGISTERED TAMWORTHS, both sexes and various ages.

On the morning of sale conveyances will be at Fenwick Station, T. H. & B.; Perry, M. C. R.; and Marshville, G. T. R.

TERMS: 9 months' on bankable paper, with 6%.

Send for catalogue giving extended pedigrees to:

COLLVER V. ROBBINS

Wellandport, Ont., R. R. No. 3

Clydesdale Horses and Shropshire Sheep—Present offering: Shropshire rams, all ages, will be sold on Monday, I am short of room.
W. F. SOMERSET, Port Sydney, Ont.
Long-distance Bell phone.

"Granger's Notice"—Cedar Fence Posts 8 ft. long, 5 1/2 inches to 6 1/2 inches at small end, 10c. each. Car lots only 500 to car. Anchor posts 7 inches up to 9 inches, 22c. each. F. O. B. Gooderham.
BOX 52. GOODERHAM, ONT.

MOFFAT Ranges

Are acknowledged best.

Write for Free Booklet.
THE MOFFAT STOVE COMPANY LTD.
Weston, Ont.

Free

Royal Purple Stock Specific

What we claim for our Royal Purple Stock Specific, the great farm animal conditioner and fattener:—

In conditioning and fattening horses you can do more in four weeks by using our Royal Purple Stock Specific than you could do in two months without it. You can fatten horses with this Stock Specific you have never been able to fatten before. Try it on the worst animal you have on your place.

A cow will gain from two to five lbs. of milk per day while in the stable by using our Stock Specific.

You can fatten steers a month earlier on the same feed by using this specific.

You can market pigs one month earlier and have larger and better pigs, thereby saving a month's labor and feed. One \$1.50 tin will be sufficient to develop six to eight pigs for market.

Use this Stock Specific with all your animals during the winter and early spring, as it will make them digest the hard winter food properly, and a great deal less food will do. After you have used this Stock Specific a short time you can keep your animals in just as good condition by using two-thirds the ordinary amount of fodder you would have to give them without it. A small quantity of this will keep your horses in first-class condition all during the winter season and bring them out fat and sleek for the farm work in the spring. In our book we publish 400 testimonials from people all over Canada who have used our stock and poultry remedies and foods.

Mr. Geo. Mapes, of Bondhead, says, "After experimenting with a great many stock foods I was convinced there was very little virtue in any of them but your dealer insisted on my trying Royal Purple Stock Specific, saying it was different from the others. I keep ten to twenty horses and about the same of cattle. This Specific, in my opinion, is certainly in a class by itself as a conditioner and it is the best I have ever used."

Mr. Norman C. Charlton, Scott, Sask., says, "I am from Ontario. I have fed your Stock Specific in Brownsville. My cows, while using it made the largest average and tested five points over average at C. M. P., at Brownsville. I know you make the highest class conditioner on the market."

Dan. McEwan, the veteran trainer of fast horses, says, "I have used your Royal Purple Stock Specific continually for five years and in all that time I have never had a horse in my stable off his feed. I consider it the greatest conditioner on the market."

Malcolm Grey, of Komoka, says, "In regards to the feeding of Royal Purple, I had two lots of hogs. To the first lot I fed Royal Purple Stock Specific as directed, and sold them when six months, seven days old. They averaged 196 pounds. On the second lot I did not use any Royal Purple and when the same age they averaged only 150 pounds. They were the same breed and one lot had as good a chance as the other."

We have fed Royal Purple Poultry Specific also with excellent results. I would not like to be without Royal Purple in the stable."

Put up in 50c. packages and \$1.50 tins. These tins contain four 50c. packages.

We will give absolutely free for the asking to any farmer, stock or poultry raiser one of our new, revised books. This book tells how to feed all kinds of farm stock and poultry, and gives the common diseases with symptoms, what treatment to be given, etc. Tells how to build poultry houses; how to avoid all manner of diseases of both stock and poultry; tells how to raise calves without using milk; explains fully all the high-class stock and poultry remedies and foods we manufacture.

*"It's a Hen's Business to Lay—
It's Our Business to Make Her Lay."*

Royal Purple Poultry Specific

Is entirely different from our Stock Specific and will keep your birds healthy and vigorous. It will make them lay just as well in winter as in summer. We are safe in saying this Poultry Specific is now being used by 75 per cent. of the poultrymen in Canada who are in the poultry business to make it pay.

Jno. C. McKinley, of Kent Bridge, Ont., states, "Since using Royal Purple Poultry Specific my hens lay all winter, and in the spring are in fine condition. We are now fattening a bunch of chickens. They look to be much bigger, fatter and stronger than those we tried to fatten without the Specific. I cannot recommend it too highly."

Mr. Lyman A. Whitman, New Albany, N.S., states he has used three boxes of Poultry Specific commencing Jan. 15th. The egg production increased at once. He states he finds it of great value for young chickens and turkeys.

Mr. Faulds, of London, one of the largest "show bird" men in Canada, says, "While using Royal Purple Poultry Specific I have never had disease in my flock. I have cured absolutely at different times severe cases of roup with your Roup Cure on birds which I have imported."

Royal Purple

STOCK AND POULTRY SPECIFICS

MADE IN CANADA BY CANADIAN CAPITAL

Royal Purple Poultry Specific is put up in 25c. and 50c. packages and \$1.50 tins. These tins contain four of the 50c. packages.

Royal Purple Calf Meal

You can raise calves on this meal without using milk.

Mrs. J. Cornett, of Lansdowne, Ont., states, "I have used your Royal Purple Calf Meal and I am convinced it is the best I have ever tried for calves. I have had trouble with other meals not agreeing with my calves but your Royal Purple seems to be satisfactory in every way."

Mr. S. M. Osborne, of Maxwell, Ont., tells us on Aug. 17th, that he has a calf four months old which weighed over 400 pounds, raised entirely on our Calf Meal.

100 lbs. for \$4.25 prepaid to any place in Canada east of Winnipeg.

We also manufacture the following high-class stock and poultry remedies:

Royal Purple Cough Cure

Will cure an ordinary cough in four days, break up and cure distemper in ten days.

Mr. Jno. Cartier, of Bothwell, writes us, "Last fall my father had a bad case of distemper in his stable. I bought a tin of Cough Cure and fed it according to directions. Inside of two weeks the distemper was completely cured. I am recommending it to my neighbors telling them what it has done for us."

50c. per tin, by mail 60c.

FREE

Royal Purple Sweat Liniment

Will cure all sorts of lameness, sprained tendons, etc. An excellent liniment for sore throats or rheumatism in people.

Mr. F. W. Moore, of Bradford, states, "I had a valuable horse go lame and tried several remedies, also employed a clever veterinary but it did not improve. Your agent in Bradford advised me to try Royal Purple Liniment. To my surprise one bottle effected a permanent cure."

8 ounce bottle 50c., by mail 65c.

Royal Purple Gall Cure

Will absolutely cure scratches, in four to five days, will cure all sorts of harness scalds and sores. You do not have to lay up your horse.

25c. and 50c. per tin, 30c. and 60c. by mail.

Royal Purple Worm Specific

Destroys the worms and larvae, thereby eliminating the cause of the worms.

Mr. Alex. Corbett, of New Waterford, N.S., writes stating he received a tin of our Worm Specific and it entirely removed the worms, fulfilling our every claim for it.

25c. per tin, by mail 30c.

Royal Purple Roup Specific

Will cure all the common diseases of poultry such as roup, pip, canker, swelled head, diphtheria and typhoid fever in fowl.

Mr. Gottfried Wein, of Crediton, Ont., states he had a large flock of turkeys last fall which commenced to die off three and four a day from roup and swelled head. He commenced using our Roup Cure and it not only saved the balance of his flock but it cured a great many of the birds that were already infected with the disease.

25c. per tin, by mail 30c.

Royal Purple Lice Killer

Will entirely exterminate the lice on stock and poultry. Is entirely different from any other lice killer on the market. Our book tells all about its manufacture.

25c. and 50c. per tin, 30c. and 60c. by mail.

Royal Purple Disinfectant

We give you at least 50 per cent. more for your money than any other disinfectant on the market. We guarantee it to be as good as the best. Use this in connection with our Lice Killer and you can exterminate the lice on the woodwork and litter in your pens as well as on the animals and poultry.

25c., 50c., and \$1.00 tins.

Royal Purple Colic Cure

"The Farmer's Insurance." This is put up in large, long-necked bottles which contain the oil and other ingredients ready to administer to the animal.

\$1.00 per bottle, by mail \$1.15.

You Can Order Direct—We will enclose enough extra goods free to pay charges on all orders amounting to \$6.00 or over to be shipped east of Winnipeg, and allow for charges west of Winnipeg on orders amounting to \$10.00.

Food For Thought

We manufacture pure, unadulterated goods. We do not use any cheap filler to make a large package. We guarantee everything we manufacture to give the desired results or refund the money.

Royal Purple Stock and Poultry Specifics
Made in Canada by Canadian Capital

Made only by THE W. A. JENKINS MANUFACTURING COMPANY, London, Ontario

60

Consignment Sale

OF PURE-BRED

60

Ayrshire Cattle

From the herds of the Southern Counties Ayrshire Breeders' Club, to be held at Butler's Sale Barn, INGERSOLL, ONT., on

Wednesday, December 30th, 1914, at 1 p.m.

Offering consists of show cows, record cows, dairy test winners, high-class young bulls and heifers with breeding that spells production. Come and see these beautiful animals. Select one or more and keep your boys' interest in the farm. We are going to make this an annual event, and would like all interested in dairy cattle to attend, whether you want to purchase or not. Every animal pledged to absolute sale. Low rates on all railroads.

Terms—Cash or credit up to six months on bankable paper, 6% interest. Catalogues ready. Send for yours to day.

JOHN McKEE, President
Norwich, Ont.

J. L. STANSELL, Sec.-Treas.
Stratfordville, Ont.

MOORE & DEAN, Auctioneers.

Imp. Shorthorn Stock Bull for Sale

I now offer for sale or exchange, one Imp. Shorthorn Bull, Reg. No. 55038 = (89980) 273853. He is an ideal type of up-to-date Shorthorn and one of the best Bruce Mayflower bulls living, and has proven a sire of great worth, and is a pure and fresh-looking as ever. Choice young Shorthorn bulls for sale.

GEO. D. FLETCHER, Erin, R.R. No. 2, Erin Station, C. P. R.

Long-distance Telephone

When writing advertisers, kindly mention "The Farmer's Advocate."

Gossip.

On page 2135, this issue, is advertised an excellent Clydesdale stallion, Gallant Baron, by Baron's Pride. Look up the advertisement and write Brandon Bros., of Forest, for further particulars.

We have just received a catalogue of E. C. Gilbert's great sale of pure-bred Holsteins, to be held at Talbotville, December 22. Write for one. A large number of choice cattle are offered. Lilly Bess, one of the cows, is now giving 79 lbs. of milk per day. Write R. R. 7, St. Thomas.

Trade Topics.

You all need "Untearable Pants." They are advertised in this issue by the Henry Tailoring Co., of Stratford, Ont. See the advertisement; get the pants, and be happy.

CHRISTMAS SAILINGS.

In connection with the Christmas sailings of Canadian Pacific Steamship "Missanabie," and Allan Line Steamship "Scandinavian" from West St. John, December 15th, the Canadian Pacific Railway will operate solid through special train composed of first- and second-class equipment and lunch-counter car, leaving Toronto 9.40 a. m., Monday, December 14th, running direct to steamships' side. Particulars from any C. P. R. Ticket Agent, or write M. G. Murphy, District Passenger Agent, Toronto.

BARGAINS

In Gasoline and Kerosene Engines

We have in stock the following Standard Field Engines which are new and in fine condition, although they have been used for demonstrating at the fairs. Every engine has a five year standard guarantee.

1 15-H.P., mounted	\$600
1 12-H.P., on skids	325
1 10-H.P., on skids	290
1 8-H.P., mounted	300

F.O.B. Ottawa; first come, first served. Everybody knows the superior quality of Field Engines. Ask the man who owns one.

W. A. HARE

28 Adelaide St., W., - Toronto
139 Spruce St., - Ottawa

Winter Session

Opens January 4th in all departments of the CENTRAL BUSINESS COLLEGE, Yonge and Gerrard Streets, Toronto. Our Catalogue explains our superiority in Equipment, Staff, Methods and Results. You are invited to write for it if interested in the kind of school work which brings best success. Address:

W. H. SHAW, President

Look Out For

The Imperial Life Assurance Company's big advertisement in next week's issue, entitled:

Who'd be a Scrooge?

It has an interesting message for you.

The Spice of Life.

"Do I make myself plain?" shouted the woman suffrage speaker, as she paused to let her arguments sink in.

"The Lord did that for you long ago," said a "mere man" in the rear.

"I've just figured out how Venus de Milo came to lose her arms."

"How?"

"She broke them off trying to button her shirtwaist up the back."

Anxious Old Lady—"I say, my good man, is this boat going up or down?"

Deckhand—"Well, she's a leaky old tub, mum. So I shouldn't wonder if she was going down. But then again, her b'ilers ain't any too good, so she might go up."

The following announcement concluded an account of a wedding in a small Massachusetts town:

"The bridegroom's gift to the bride was a handsome diamond brooch, besides many other beautiful things in cut glass."

THE FULL SOLEMNITY.

At a negro wedding, when the clergyman read the words, "love, honor and obey," the bridegroom interrupted and said:

"Read that again, sah! Read it once mo', so's de lady kin ketch de full solemnity ob de meanin'. I's been married befo'."

The college professor, greatly beloved because of his kind heart, but very absent-minded, visited his married niece and listened to her praise of her first-born. When she paused for breath, the professor felt that he must say something.

"Can the little fellow walk?" he asked with every appearance of interest.

"Walk?" cried the mother indignantly.

"Why, he's been walking now for five months."

"Dear me!" exclaimed the professor, "What a long way he must have gone."

The little, mild, bald man, had settled down in the train to read, and, feeling drowsy after a trying day at business, fell asleep. On the hat-rack above was a ferocious crab in a bucket, and, reaching the edge of the rack, it fell, alighting on the little man's shoulder, and grabbed his ear to steady itself.

All the passengers waited expectantly for the developments, but all they heard was:

"Let go, Sarah! I tell you I've been at the office all the evening."

Two French-Canadian citizens of a Montana town were travelling down a river in that State in a houseboat. One of them knew the river and the other did not.

They anchored for the night on a bar. Along toward daylight the craft went adrift. Three hours later, the motion awoke one of the travellers. He poked his head out of the door. An entirely strange section of scenery was passing.

"Baptiste! Baptiste!" he yelled. "Get up! We ain't here!"

His comrade roused himself and looked out.

"No, by gar!" he said—"we're twelve miles from here!"

A young German who wished to be enlisted in the navy, but was unable to speak English, was being coached by an officer.

"Look here, my man, when the inspector comes to you he will ask you how old you are. And you must say 27 years, 2-7 y-e-a-r-s. Then he will ask you how long you have been in the service. And you tell him three months, three m-o-n-t-h-s. His next question will be, 'Are you provided with food and clothing?' And you must say both. B-o-t-h."

The following week the inspector came, and walking up to the German, said: "Good morning, friend, and how long have you been in the service?"

"Twenty-seven years," was the answer.

"Well, that's funny; I never saw you before. How old are you?"

"Three months," replied the German.

"Say, what do you think I am, a lunatic or a fool?"

"Both," boldly answered the German.

Cohen—"Hands up, or I'll shoot!" Quick-witted Burglar—"Fifty dollars fer de gun!"

Cohen—"Sold!"

"Sonny, can you tell me where your father is?" asked a stranger of Tommy Jones one day.

"Out in the pig pen," came the reply. "You can tell dad 'cause he's got a hat on."

The man who's always punctual
Must soon learn to wait,
Because the man whom he's to meet
Is usually late.
It pays, though, to be punctual
For then you can look grim
And tell your friends how much you are
Superior to him.

Mrs. Randall had just finished instructing her new girl, who came to her from an intelligence-office. Her general appearance pleased the mistress greatly, and she felt sure that at last she had succeeded in finding a prize.

"And, Lizzie, do you have to be called in the morning?" she asked as an after-thought.

"I don't have to be, mum, replied the new assistant hopefully, "unless you just happens to need me."

"No man is as well known as he thinks he is," says Caruso. "I was motoring on Long Island recently. My car broke down, and I entered a farmhouse to get warm. The farmer and I chatted, and when he asked my name I told him modestly that it was Caruso. At that name he threw up his hands. 'Caruso!' he exclaimed. 'Robinson Caruso, the great traveler! Little did I expect ever to see a man like yer in this here humble kitchen, sir!'"

The principal grocer of a small country town was chatting with several customers, when a discussion arose as to the wonderful sense of touch that the blind have. "Here comes old blind Henry Perkins, now," said the grocer, "we'll test him."

He took a scoopful of sugar and extended it to the old man. "Feel this, Henry," he said, "and tell us what it is." The blind man put his hands in the scoop, passed its contents through his fingers, and said in a firm confident tone, "Sand!"

She was bubbling over with the Christmas spirit. She could keep it in no longer. "Dearest," she exclaimed to her husband, "I just can't wait till Christmas to tell you what I've got you for a present." "Well," replied the young husband, "what is it?" "I've got you a new rug to put in front of my dressing table and a bronze statuette for the parlor mantlepiece," she blurted out. "Now, what are you going to give me?"

A tourist in Scotland came to a wide ferry. It was stormy, and the wind was constantly increasing. The Scotch ferryman agreed to take the tourist across, but told him to wait until he had first taken a cow over.

When he had returned and started across with the traveller, the latter became curious.

"Will you tell me why you took the cow over and made me wait?" he asked.

"Weel, now," explained the ferryman, "you see, the coo wur valuable, and I feared th' wind wud increase so th' boat might upset on th' second trip."

Boys are men that have not got as big as their papas, and girls are women that will be ladies by-and-by. Man was made before woman. When God looked at Adam, He said to Himself: "Well, I think I can do better if I try again." And he made Eve so much better than Adam that there have been more women than men.

Boys are a trouble. They wear out everything but soap. If I had my way half the world would be girls and the rest dolls. My papa is so nice that I think he must have been a little girl when he was a little boy.

Man was made, but on the seventh day he rested. Woman was then made and she has never rested since.

Watson's Ensilage Truck No. 34



Made for the Farm

A Feeding Truck

Hopper removable making a first-class platform truck

Made in two sizes—20 and 25 bus. capacity

John Watson Mfg. Co. Limited, Ayr, Ontario

LAND TILE

3, 4, 5, 6, 8, 10 and 12 Inch

We manufacture, and carry in stock, the best land tile in the above sizes. You know the many advantages of having your farm well drained.

Write and get one of our booklets on farm drainage free.

The Dominion Sewer Pipe Co.

LIMITED

Swansea, Ontario

White Wyandottes

HAVING added Dr. Nicolle's entire flock of choice White Wyandottes to our own carefully-bred pens, we are in position to supply selected birds, not related, at \$6 per trio. Extra pullets or hens \$2 each. Some of the cock birds used last spring were from McLeod Bros., Beulah Farm (laying strain). Many of the hens averaged 170 eggs in pullet year. All orders will receive careful attention. Address:

Weldwood Farm, FARMER'S ADVOCATE London, Ontario

KELSEY
WARMING & VENTILATING
IS THE MOST
HEALTHFUL, EFFICIENT, ECONOMICAL.
For the Home, Church, or School.

THE JAMES SMART MFG. CO., LTD., BROCKVILLE, ONT.

WHERE ELSE CAN YOU BUY

Grandsons and Granddaughters of Pontiac Korndyke at Public Auction and at your own price. 20 head mostly young and all rich in the blood of such noted sires as Johanna Rue 4th Lad, Peterje Hengerveldt, Count Dekol or Pontias Korndyke. 15 females, 5 bulls. Remember the date, Wednesday, Dec. 30th. At the same time and place a nice lot of Tamworth Swine; 6 good young Horses, heavy and light harness; Delaval Cream Separator, etc.; quantity of Corn in shock, etc. Farm can be reached by coming to Fenwick, Perry or Marshall Stations where trains will be met. Write for Catalogue.

BELL 'PHONE.

COLLVER V. ROBINS, WELLANDPORT, ONT.

For Sale: Gallant Baron [8003] (13876) Sired by Baron's Pride (9122). The greatest sire Scotland has ever had. Gallant Baron is 8 years old, sound and right in every way; a splendid foal-getter and a most beautiful horse. He is full brother to Bowhill Baron, stud horse for the Colony Stock Farm, B. C. This horse has stood in this neighborhood since a two-year-old, and it becomes necessary to part with him on account of so many of his get. There is no better stock horse to be found, and his colts will be shown by the dozen. He will be sold for half the price that he could be bought for from any importer. Brandon Bros., Forest, Lambton Co. Ont. L.-D. Phone.

Cream Wanted

Big price for butter fat. We want your cream. Write us; cans supplied.

GALT CREAMERY

Galt, - - - Ontario

Please mention "The Farmer's Advocate."



1915 Wheat Year

The call has gone out for wheat. More land under wheat is the report from every section. Every bushel that can be raised will have a dozen buyers.

Make your land produce more to the acre. Feed your soil the fertilizer it needs for wheat. Do you know what that is?

You can learn without expense. Our "Bumper Crop" Book has complete information about fertilizers. Tells what kinds and how much to use for each crop. There is a copy for you, FREE. Mention this paper

when you write, and we will not only send you a free book on fertilizing, but answer any questions you may ask about your special needs. Be ready for action.

Write to-day.

Gunns Shur-Crop FERTILIZER

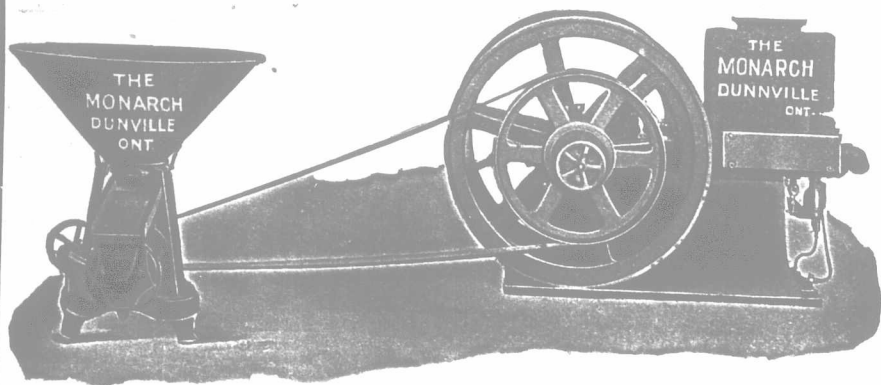
GUNNS LIMITED, WEST TORONTO

Direct from the Factory to the Farmer

Monarch Gasoline Engines

1½ to 35 Horse-power.

Grain Grinders, Ensilage Cutters and Saw Frames



10 in. Grinder and 8 H.P. Hopper-cooled Engine.

MADE IN CANADA

To the Frost & Wood Co.

Clifton, N.B., Nov. 4th., 1914.

Dear Sirs:—

In February last I bought a Monarch engine from your agent, Mr. A. T. Hinton, I have used it ever since and have never had any trouble of any kind. We have several different kinds of engines round this place, and I can do their work easily with half the gasoline they use. I have run the engine ten hours on a Double Thresher different times on two gallons of gasoline, and thrashed as high as 75 bushels in an hour. I use a 30" saw on my Wood Cutter, and it does not bother the engine one sign. Yesterday I cut 5 cords of dry hard wood in stove lengths in one hour. I cannot tell you how much I am pleased with the Engine. But its of no use me telling you, the engine will speak for itself.

Yours truly,
J. G. Powers, Clifton, Glou. Co., N.B.

Write for catalogue and prices to

CANADIAN ENGINES LIMITED

DUNNVILLE, ONTARIO

FROST & WOOD CO., Limited

Exclusive sales agents East of Peterboro, Quebec and the Maritime Provinces.

Good live agents wanted in unrepresented territory.

Questions and Answers.

1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

Hay.

I have a young Scotchman 29 years old working on my farm at St. Johns, and he tells me that in Scotland, timothy hay or clover yield about six tons to the acre. Is he right about this?

V. G.

Ans.—It is possible that a yie'd of this magnitude may be had in Scotland.

Symptoms of Hog Cholera.

1. What are the first symptoms of hog cholera?

2. I have two pigs which weigh about 150 pounds. They have been fed on corn and swill, and water to drink. They have been running about a pasture field, but for the last four days they lie down and sleep and will not eat anything, but drink a very small quantity of milk. As soon as I get them up they lie down again. I have never had a pig like it before. What do you think is the trouble or cause of it?

A. J. L.

Ans.—1. The early symptoms are not characteristic of the disease, and may not enable a definite opinion to be formed. The hog loses its appetite, partly, or altogether, is sluggish, disinclined to move, and if compelled to do so may cough. These symptoms occurring among hogs in the vicinity of an outbreak of hog cholera should be viewed with suspicion, and the nearest veterinary inspector should be notified at once. The sick hogs soon become thin and weak, walking with a staggering gait, especially with the hind legs, but the hogs may die in a few days, before they have had time to lose much flesh. The skin frequently becomes red in patches, the color turning deeper and more purplish as the disease advances. The patches usually occur inside the legs, under the body, or behind the ears, but may be seen anywhere. The eyes discharge mucous secretion, and the lids may be gummed together by it. The bowels are generally loose, and a profuse diarrhea may occur, although in some cases there may be constipation. The sick hog generally goes off by himself, and is found lying in a quiet corner of the pen. If compelled to get up, he does it unwillingly, stands with his back arched and his belly drawn up, or moves in a weak, staggering manner, and may fall over. A sick hog seldom shows all the symptoms previously described, and in many cases it requires an expert to decide what is the matter. Usually one or two of the symptoms are well marked, such as coughing and rapid breathing, or diarrhea and tucked up appearance, or redness of the skin and discharge from the eyes. The symptoms have been described at some length, so that the farmer may be on his guard if any of them are noticed, and call in the inspector before the infection has time to spread. There is a great difference in the severity of the disease in various outbreaks. Sometimes it is of a severe or virulent type and rapidly fatal. In other outbreaks the type is mild, and recovery frequent. The latter type may be considered just as dangerous to the community as the former, as it is more difficult to detect, and the recovered hogs are apt to spread the disease far and wide before it is recognized.

2. Since hog cholera has appeared in your neighborhood, it would be wise to call the inspector at once and have him see the pigs. The symptoms given are not sufficient to enable us to pronounce definitely as to the disease, but they indicate cholera.

The Alabastine Co., Ltd., of Caledonia, announce that they have imported a pair of Mule Foot hogs, which hogs do not divide the hoof, are black in color, and at maturity weigh from 400 to 600 pounds. These hogs can be seen by interested parties at the farm of The Alabastine Company of Paris, Ltd., Caledonia, Ont.

Gossip.

F. W. Ewing writes that, thanks to "The Farmer's Advocate," he has sold his herd bull, Proud Monarch to Richardson Bros., Columbus, Ontario. See Mr. Ewing's advertisement; he has still some good young bulls, heifers and young cows for sale.

J. M. Gardhouse, Weston, Ontario, reports sales of Leicesters good, all rams being sold and also all the surplus ewes. A number of good Shorthorn bulls have been sold, among them being one to John McKenzie, Chatsworth; one to John Crawford, Rosseau; one to A. & W. Whitelaw, Guelph; one to Wm. Cowan, Ariss, Ont. Mr. Gardhouse has still a number of good young bulls, including three Uppermill Omega calves, one extra choice Lavender, and three from heavy-milking dams, all to be sold cheap. See the advertisement.

"SOME COWS FROM GLENGARRY."

Among the records collected by the dairy division, Ottawa, this season are some from Glengarry that show the average yield of 155 cows to be 4,540 pounds of milk, 3.5 test, 159 pounds of fat. Included in that is the yield of one herd of 9 cows, including one three-year-old that averaged 6,200 pounds of milk, 3.5 test, 205 pounds of fat.

It will be noticed that this herd produced 1,669 pounds of milk and 46 pounds of fat above the average of the 155 cows. Another herd averaged 220 pounds of fat, or 61 pounds per cow above the average; with fat reckoned at thirty cents per pound, this is equivalent to over eighteen dollars per cow, indicative of the thousands of dollars extra that might be coming into a district if the cows were keyed up to a higher producing level.

One noticeable feature of this section is the large number of poor yields from two and three year olds. But it is not only the heifers that are responsible for lowering the average yield. There are cows from six to ten years old that gave only 2,800 pounds of milk and 102 pounds of fat as compared with that average of 4,540 pounds of milk and 159 pounds of fat.

So that instead of a contrast of only eighteen dollars, it is found that there is an actual difference of over forty-one dollars in the cash received from mature cows in the same period. This is surely a statement strong enough to cause every dairyman to examine closely into the performance of each cow he keeps. Milk records are easily kept and a composite sample from each tenth day's milk can be tested once a month. Is not this worth doing? Milk and feed records are supplied free by the Dairy Commissioner, Ottawa; write for them.

C. F. W.

A farmer in the country last autumn gave a job to a seedy-looking individual who had applied to him, and who assured him that he never got tired. When the employer went to the field where he had put the tramp to work, he found the latter lolling on his back under a tree.

"What does this mean?" asked the employer. "I thought you were a man who never got tired?"

"I don't," calmly responded the tramp. "This doesn't tire me."

"I was never glad for this impediment in my speech but once," said the man from the country who was in to see the town.

"When was that?"
"Fefefellow asked me how much I would take for a-a horse, and, while I-I-I was t-trying to tell him s-sixteen pounds, he offered me f-fifty."

Old Scotchwoman—"The last steak I got frae ye I could hae soled ma boots wi' it."

Butcher—"And why did ye no dae it?"
Woman—"So I wid if I could hae got the pegs tae gang through it."

Visitor—"Are you having any trouble to find work for the unemployed here?"
Uncle Eben—"Nope. Our trouble here is to get work out of the employed."

Ask

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Question

Fertilizers an

1. I have of about eight to pasture for looks poor, an spruce. I int spring. What profitable yield how much sho it pay to try rate of 100 lb

2. What is balanced rat hay (not the oats cut gree of peas mixed, oil cake, and

Ans.—1. We guaranteeing a a hoed crop what it deser circumstances yet in suitabl

When one figu lizer and dedu of one year, it pleasing margi on a hoed crop ever, some of in the soil for must be charg

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lbs. muriate of be practically ash salts in th well to look a ashes. Good about 6 per ce

tain some ph one-half lime. 500 lbs. of as substitute for potash. You as much per ac it will be wis given. The f in "The Farmer that is mixed

Ideal Stock Food

Ask yourself the question, should I feed my stock pure food? Does it not seem strange, that as far as we know, we are the only manufacturers of Stock and Poultry foods guaranteeing our foods free from poisonous drugs, besides we guarantee as good results as any food upon the market. If you are not satisfied, after a fair trial, your money will be cheerfully refunded. You cannot make any mistake, nor are you taking any chances by using our foods. By analysis, we have the best; there is no mistake about that.

Ideal Stock Food will increase quantity and quality of milk.
 " " " will Fatten your hogs
 " " " will condition your horse.
 " " " will condition your sheep.
 " " " will raise calves without milk.
 " " " will keep all your cattle and horses in good condition. Try it and convince yourself.

Ideal Poultry Food is giving satisfaction as no other food is, Mr. Curtis of 127 Catharine St. N., tells us that no other food that he has used is equal to ours. It surely is a conditioner and a great egg producer. Mr. John Ennis of 30 Blythe St., Hamilton, captured 3 first prizes only showing 3 birds, they were raised on our Ideal Baby Chick Food; and from six weeks old, on our Ideal Poultry Food.

Mr. Wm. Moore, the most noted breeder of White Orpingtons on the continent, a consistent winner at Madison Square Gardens, New York and who made a clean sweep at the Orpington Club Show held at Hamilton, Nov., 1914 in connection with the Hamilton Poultry Show, says, he never saw anything to equal Ideal Poultry Food for bringing birds through the moulting season.

By using our foods you decrease the cost of your feeding bill. Why? when feeding Ideal Stock Food you need not feed Cotton Seed Meal or Oil Cake Meal. By using our poultry food you need not feed scrap meat or green bone.

These are salient points and worthy of your consideration.

If you cannot get our goods at your nearest dealer, write to us and we will see that you are supplied. Will forward pamphlets on request.

We hereby offer \$200.00 (Two Hundred Dollars) to anyone who will prove that our foods contain Black Antimony, Jimson Weed, Red Ochre or any other poisonous drugs.

IDEAL STOCK & POULTRY FOOD COMPANY
 92 John Street South, Hamilton

When writing advertisers, kindly mention "The Farmer's Advocate."

"Ideal" Fence

Is Strong and "Made-to-Last"

Strength is what you want in a fence. You want a fence that will live; a fence that will last; a fence that possesses great strength in every wire—in the line-wires, in the stay-wires, and in the locks. If any one of these three wires is smaller than the other then the whole fence is no stronger than the smallest, weakest wire.

No small weak wires in "Ideal". From top to bottom it's all the same—the line-wires, the stay-wires and the "Ideal" lock—are all full gauge No. 9, all hard steel wire and every wire full of strength and properly galvanized to protect and preserve that strength.

Why not buy the fence that possesses the greatest strength—every wire even the locks are of the same size wire. This Fence—"Ideal"—contains the most real genuine value and is the cheapest for you in the end.

Let us tell you more about this strong fence. A postal will bring you valuable "fence" information. Ask for catalogue 121.

The McGregor Banwell Fence
 Co. Ltd.
 Walkerville, Ont.
 17



Questions and Answers. Miscellaneous.

Fertilizers and Ration for Dairy Cow.

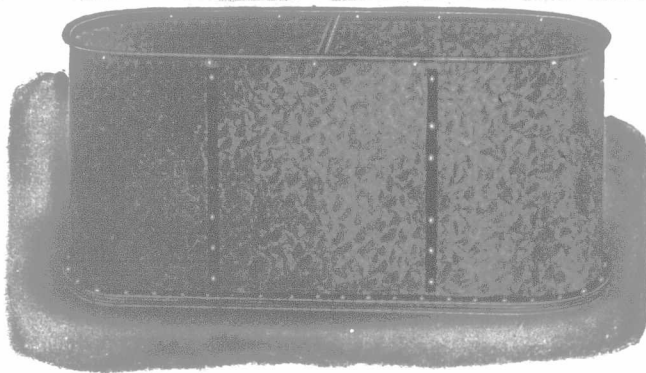
1. I have fall-plowed a run-out farm of about eight acres. It has been out to pasture for a number of years, but looks poor, and is growing up with small spruce. I intend to sow oats on it next spring. What fertilizer would give a profitable yield of grain and straw, and how much should I use per acre. Would it pay to try nitrate of soda at the rate of 100 lbs. to the acre?

2. What is an easy way to make a balanced ration for a dairy cow from hay (not the best quality), turnips, and oats cut green, with a small quantity of peas mixed. I am buying some bran, oil cake, and cotton-seed meal?

M. G.

Ans.—1. We would feel more like guaranteeing a good yield of oats after a hoed crop on this field, and that is what it deserves, but if oats suit the circumstances best, no doubt the land is yet in suitable shape to produce them. When one figures the value of the fertilizer and deducts it from the grain crop of one year, it does not leave the same pleasing margin as it would were it put on a hoed crop the year previous. However, some of the fertilizer will remain in the soil for the succeeding crop, and must be charged up to that crop to a certain extent. Barnyard manure, of course, would advertise itself on such land, but failing that, we would recommend a mixture of 80 lbs. nitrate of soda, 250 lbs. of acid phosphate, and 70 lbs. muriate of potash per acre. It will be practically impossible to procure potash salts in the spring, and it would be well to look about for some hard-wood ashes. Good hard-wood ashes will run about 6 per cent. potash, but they contain some phosphates, and are almost one-half lime. It would require about 500 lbs. of ashes per acre to act as a substitute for the 70 lbs. of muriate of potash. You may not see fit to apply as much per acre as is recommended, but it will be wise to follow the proportions given. The fertilizer firms advertising in "The Farmer's Advocate" sell a grade that is mixed specially for grain, and

Wayne Steel Tanks



Do not buy wooden tanks or build concrete ones until you have investigated the WAYNE STEEL TANK.

The WAYNE TANK is moderate in price and has twice the life of a wooden tank and many advantages over cement.

No fuss or muss. Use it in the barn to-day and to-morrow put it in the yard if you wish. They do not get water-soaked, and freezing weather has no effect on them.

If your dealer does not handle the WAYNE, let us hear from you direct.

Wayne Oil Tank & Pump Company, Limited
 Woodstock, Ontario

you would do well to acquaint yourself with their terms.

2. We have figured this ration considering that the hay is as good as ordinary mixed hay, and that the oats and peas are such as are ordinarily grown. If they are below the average, the protein content of them will be below what we have figured, but on the average we consider that this ration, as we advise, will measure up to the standard we have given it. We consider that cotton-seed meal is a better investment than oil-cake meal, owing to the reasonable price of cotton-seed meal. In this case we advise 10 pounds of hay, 6 pounds of oats and peas, 40 pounds of turnips, 3 pounds of bran, and 1 pound of cotton-seed meal. A large cow will probably consume more than this, for it only contains 21.77 pounds of dry matter. This is not 21.77 pounds of fodder, but what remains after the moisture is removed. Some cows will consume 25 pounds or over, but for the general run this amount will suffice. The nutritive ratio of this ration is one to six, which is considered plenty narrow enough for a dairy ration. By narrow, we mean a sufficient amount of protein along with the carbohydrates and fats, to make a ration which when being consumed will not be wasteful in any of these constituents.

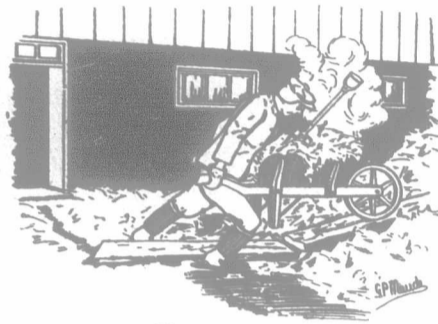
C. A. POWELL'S HAMPSHIRE AND LINCOLNS.

Attention is directed to the advertisement of Hampshire swine and Lincoln sheep, the property of C. A. Powell, R. R. No. 1, Ettrick, Ont. Note the address. In the advertisement it reads "Ingersoll," but Mr. Powell is on a rural route, Ettrick, No. 1. His pigs and sheep are also No. 1, and he has a large number to choose from, at prices to suit any pocket. Look up this advertisement.

Sandy (newly arrived in the Canadian forest-land)—"Whatna beast's yon?"
 Native—"A young moose."
 Sandy—"Och, haud yer tongue! If that's a young moose, I'd like to see ane o' yer auld rats!"

CLEAN YOUR STABLES

The Superior Way



The Old Way

Is it your daily experience to push out a wheelbarrow over a plank through a sloppy, muddy barnyard, taxing your strength and your patience, taking four times as long to do the job as it should?

THIS IS THE OLD WAY. GET POSTED—LEARN HOW A BOY CAN CLEAN YOUR STABLES THE SUPERIOR WAY.

The Superior Litter Carrier Outfit is the most complete on the market, embodying the most modern practical ideas of the leading stock and dairymen of Canada.

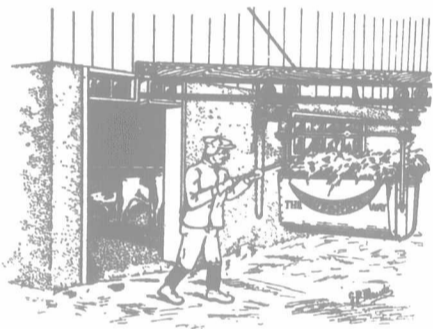
There are 23 special features in my Superior Carriers that I want you to know about before you install a carrier. Every man who keeps stock should have a Superior Carrier Outfit. If you are interested I want you to write to me, and I will tell you how reasonably you can install my Superior Carrier, that will pay for itself before the winter is over in time saved alone.

Look at the comparison, the Old Way and the Superior Way, the same man taking out five times as much manure at one time and doing it quicker and with very little exertion.

Write for catalogue now to

GEO. P. MAUDE, Manager

Superior Barn Equipment Co.
Fergus, Ontario



The Superior Way

Points for Egg Producers.

In a recent issue of The Journal of the Board of Agriculture appears an article explaining the duty of the producer of eggs in order that the demand may be maintained and increased. So significant are they, we are reproducing excerpts from the advice given that our readers may benefit by them.

The consumer unconsciously plays an important part in fixing the standard for the first-grade eggs. Popular prejudices may not always be supported by scientific fact, but as the consumer is ultimately responsible for the demand, the producer will find it to his advantage to study public requirements carefully and endeavor to meet them as far as lies in his power.

The interval between the time the eggs are laid and the time they reach the consumer should not be more than three to five days, according to the season of the year. If older than this they must face competition with foreign supplies, and have lost a measure of their new-laid quality. With things as they are at present, delay in marketing is traceable to the dealer or retailer as well as the producer. Unless the poultry-keeper delivers his eggs to private customers he loses control of them after they have passed out of his hands, but he can at least ensure that he is responsible for no part of the delay.

The egg should be not less than 2 ounces in weight; smaller eggs may be equal in nutritive value to those of large size, but the consumer has an undoubted preference for the latter. In shape it is desirable that the eggs should be neither too long and narrow nor too wide and short; provided, however, the shell is even and not abnormal this does not greatly matter. The shell should be strong and devoid of any roughness. A thick shell may mean that the proportion of edible matter to total weight is less than when the shell is thin, but this is more than compensated for by the fact that there is less evaporation, and the transport qualities are greater. Roughness of the shell is undesirable, as in autumn and winter it generally denotes preservation by lime water. The bright, shiny coating of the egg known as "bloom" should still be present.

While it may be true that there is no appreciably greater value in eggs with tinted shells the consumer usually prefers them to those having white shells, and the producer would, therefore, include at least a proportion of tinted eggs.

While it is important that eggs should present an attractive external appearance, their actual food value can only be determined by an examination of the contents. Examination should show a small air space at the broader end of the egg. When an egg is new-laid the air space is scarcely perceptible, but it increases in size every day. The contents should be clear and free from spots representing moulds, or dark areas showing development of the germ or bacterial colonies in the white.

When broken the white and yolk ligaments should be strong and firm, and the yolk round. A flat yolk indicates age or a "stale" egg. The best yolks are reddish-yellow in color, and not pure yellow. If boiled before it is more than three to five days old the white does not thicken to the extent that it will later, but remains milky and flaky.

Finally, it may be said that infertile eggs are to be preferred to those which have been fertilized. Nests should be sufficient in number, roomy, dry and clean. They should be removable to facilitate cleaning, and the nesting material should be renewed frequently, especially if it becomes wet or soiled. If, in spite of every precaution, dirt has collected on the egg, it should at once be removed by means of a dry cloth. Should that not be sufficient, a slightly damp, but not wet, cloth may be used. It is desirable to limewash the nests frequently, to rid them of parasites.

The eggs should be collected at least once daily; in warm, moist weather twice daily is preferable. They should not be kept in a hot room or exposed to the sun's rays. The store-room should be cool and dry, and free from objectionable odors. "A dairy is excellent for the purpose, but failing that, a

larder or well-ventilated cellar would be suitable. It should be remembered that few food products are more susceptible than eggs to taint by strong-smelling substances, and to rapid deterioration when improperly stored.

All abnormal eggs, double-yolked, large, small, dirty and cracked eggs should be utilized for home consumption.

If it can be avoided fertile eggs should not be marketed. In warm, moist weather they may undergo partial incubation, and, in any case, form the great mass of bad and deteriorated eggs. The male birds should be removed directly after the close of the breeding season.

The practice of holding back eggs in the hope of obtaining a higher price cannot be too strongly condemned, and is against the interests of the producer in every way. Eggs should be marketed at least once a week; if the highest class trade is to be secured they must be marketed three times a week in spring and summer, and twice a week in winter.

A Source of Potash.

Fruitgrowers and gardeners will regret the dearth of potash manures during the coming season more than the general farmers, but it usually works out around a fruit farm that the pruning and trimming will supply a small amount of ashes which may come in very handy on some crops that require a considerable amount of potash. Of course, no grower can depend upon what trimming and pruning there may be in the orchard to supply the potash, but they are so valuable under the present conditions that they should not be allowed to go to waste.

The experimenters at Rothamsted, in England, one of the oldest established experiment stations in the British Empire, took this matter up and carried on some investigation with the pruning and trimming of hedges to find out what the potash content of the ashes from such trimmings would be. The mean percentage of three experiments was 10.9 per cent., while one test went as high as 13 per cent. potash. The twigs and branches of plants are much stronger in potash than the trunk, and, as most people know, hardwood ashes are more valuable than ashes from soft wood. They also contain phosphoric acid, and a considerable amount of carbonate of lime. However, taking it for the potash content alone these ashes would have been worth 50 cents per cwt., as potash in the form of K₂O was worth 5 cents per pound. It would probably be valued at a higher figure at the present time, and give them as increased value.

In a recent article Prof. Harcourt writes that the ordinary run of hardwood ashes, well cared for, will contain about 6 per cent. potash, and this together with the phosphoric acid and lime gives them the value of \$8.00 per ton. It can be seen then that where anything is to be burned the ashes should be preserved, for potash is very scarce and very much needed.

It should be remembered, however, that the desired ingredient will quickly leach from the ashes. In the Rothamsted experiment the ashes were allowed to remain out over night, and during that time .09 inch of rain fell. It was found in the morning that one-half of the potash content of the ashes had been lost. Consequently, immediately after burning and as soon as they can be moved they should be put where they are to be used as fertilizer.

Geo. Amos & Sons, Moffat, Ont., write: "Our herd has entered their winter quarters in good condition. We have a fine bunch of young things coming on, including several grand young bulls that are fit to head any herd, and with the best of breeding, some others suitable for farmers, and several good females of different ages." See their advertisement.

Stranger—"Upon what plans are your city institutions conducted?"
Citizen—"A sort of let-George-do-it system—without any George."

Getting Eggs?

EGGS cannot be made without meat food any more than butter can be made without cream. If you are not getting eggs, it is because you are not giving your hens the material they need to produce them.

Grains and green feed are not complete egg-making foods.

In the natural laying season—summer—hens pick up bugs and worms. These contain the necessary protein to make eggs. In winter, Shur-Gain Beef Scrap takes the place of the natural meat food (worms). It, too, has the necessary protein.

Gunns Shur-Gain Beef Scrap

We issue a free Poultry Book—a complete book of instructions, showing clearly, among other things, how to feed for winter eggs.

Write for a copy to-day.

GUNNS LIMITED, WEST TORONTO

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I want help to get more Eggs.

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It Will Pay Anyone to Give Our Digestible Meal a Trial

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Questions and Answers.
Miscellaneous.

About Mangels and Barley.

1. Seeing much useful information in "The Farmer's Advocate," I would be much obliged if you would give me a little information and advice regarding the growing of field mangels. In the fall of 1910 I plowed a piece of sod intending it for a root crop. In the spring of 1911 I manured it plentifully and worked the same in with a spring-tooth cultivator, and the result was an excellent crop of mangels. The following spring I repeated method, omitting the plowing. The result was also good. Last spring I just manured the field and worked it in the same as before, with the result that I had as fine a field of mangels as you would see in a day's travel. I should like to know if it would be advisable to follow the same plan for another year, or would it have a bad effect on the land for future grain crops. I have been informed that I am



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impoverishing the land so that a crop of grain or hay would not grow.

2. Would also like your opinion on whether, as a rule, good results come from sowing barley on sod plowing, and if it would be well to sow barley again for a second crop, the land being in a good state of cultivation? E. A.

Ans.—1. Where we have observed mangels growing, they have always done best on clover sod, and since some rotation is necessary in good farming, we consider it not the best practice to grow mangels year after year on the same field. If it is manured annually, no doubt you would get a crop next year, but that is not the best method to pursue. It cannot be said definitely that grain will not grow after such tillage, but it will grow better after one hoed crop as a general thing.

2. We saw some excellent crops of barley last year growing on clover and alfalfa sod, but we do not wish to recommend the practice, not knowing your land. It usually does better when following roots or corn. Again, it does not seem wise to follow barley with barley, but in this particular case it might result in a good crop. However, the system is not right.

Rations for Growing Pigs.

After the pigs are weaned, they should be continued on the ration suggested for the nursing sows. By eating with their mother the pigs become accustomed to it, and so are weaned more easily and with less of a setback. The ration can be most satisfactorily given in the form of a thick slop, and fed in V-shaped troughs placed on a cement feeding floor. Shelled corn also may be fed on a clean spot on the floor. The dry corn seems to be relished in addition to the slop ration and pasture. Either wood or corn-cob charcoal, broken into pieces about the size of a hickory nut, is greatly relished by the early pigs while still confined in the spring before pasture grasses are available.

To insure the most rapid development the young pigs should be fed three times daily and given the run of a blue-grass pasture or a field of some other forage crop. Where but one litter of pigs is produced a year, and the most rapid development is not desired, it is possible to economize on the grain ration by providing plenty of pasture and forage. Even before the pigs are weaned the grain ration may be fed sparingly; and after the pigs are weaned, if they are doing well, heavy grain feeding may be postponed until cool weather sets in when newly-grown grain is available.

The following rations have been found satisfactory for developing young pigs, whether confined in the dry lot or given the run of a pasture, or when provided with forage crops and fed with ear corn or other fattening feeds to finish them for market.

Ration 1.—32 pounds corn meal, 32 pounds wheat middlings, 32 pounds ground oats, 4 pounds oil meal.

Ration 2.—32 pounds ground barley, 32 pounds wheat middlings, 32 pounds ground oats, 4 pounds oil meal.

Ration 3.—47 pounds corn meal, 47 pounds wheat middlings, 6 pounds oil meal.

Ration 4.—47 pounds wheat middlings, 47 pounds ground barley, 6 pounds oil meal.

Ration 1 has a mixture of feeds in about the exact proportion to be relished and to keep the digestive tract in proper condition. It has about the proper nutritive ratio for the young growing pigs, but during the fattening period ear corn should be fed in increasing amounts. Oil meal is one of the most important

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Hogs and Sheep

Pratts Healing Ointment (for Man or Beast), 25c.-50c.
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 Pratts Dip and Disinfectant, \$1.50.
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 Pratts Bag Ointment (for Cows), 25c.-50c.
 Pratts Spavin Remedy, 50c.—1.00
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Cows give more and richer milk while the percentage of butter fat is increased. The reason is that Pratts Animal Regulator, being composed entirely of pure medicinal roots, herbs and barks, acts on the system so as to cause perfect digestion. Perfect digestion, of course, means that all food eaten goes to build up health and strength, instead of being partially wasted by imperfect assimilation.

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Pratts Dip and Disinfectant is a coal tar preparation which is non-poisonous and mixes with hard or soft water. For Ticks, Mange, Ringworm, Cuts, Lice and Fleas, \$1.50 a gal., 90c. a 1/2 gal., 50c. a quart.

Pratts Healing Ointment for sores, cuts, scratches, burns, scalds. Heals naturally, and leaves no scabs. Excellent for human use, too. At your dealer's, 25c. and 50c. a box.

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Write your name and address on the margin of this ad., tear out and mail with 10c. (stamps or silver) to cover postage, wrapping, etc., and receive a copy of "Pratts Pointers on Cows, Hogs and Sheep," 172 pages, or "Pratts Pointers on Horses," 183 pages. Both books for 20 cents.

ingredients. Mixed with the slop the oil meal forms a sticky combination which prevents the meal from settling and thus gives a uniform mixture. Without oil meal or milk in the slop, the other feeds will settle rapidly to the bottom of the pail or barrel, forming a thin slop at the top and a thick slop at the bottom. Oil meal always serves an important function in the animal body; it regulates the digestive organs, and gives a quality to the skin and hair that otherwise cannot be secured.

The farmer who has skim milk, clover or alfalfa, and grows corn, will need to purchase but little feed for his swine. Middlings, oil meal, and tankage, are all valuable nitrogenous feeds, and should be fed as supplements to corn. Of course, too liberal feeding of corn in the early growing periods is injurious. Usually, for the first six to eight weeks after weaning, it is not best to make corn more than one-third of the grain ration. When the pigs are five months old, the amount of corn may be increased gradually, and then after two months of feeding, and to the end of the fattening period, corn may form from 60 to 90 per cent. of the entire ration. A ration composed of 75 pounds of corn on the ear, 15 pounds of wheat middlings, and 10 pounds of oil meal, is a satisfactory combination for fattening swine. Ground or soaked rye or ground barley can replace the corn with practically the same results.

Skim milk is always a splendid feed for swine; and if available in sufficient quantities to form the greater part of the liquid in any of the above rations, oil meal need not be fed. One hundred pounds of skim milk are sometimes considered equal in value for pig feeding to one-half a bushel of corn. Although not considered as good for young pigs, buttermilk is equal to or better than skim milk for fattening swine. Whey, when it does not contain too much water or washings, has a value for pig feeding usually considered less than one-half that of either skim milk or buttermilk.—Wisconsin Bulletin 242.

The bull illustrated in the advertisement of Griesbach Bros., Collingwood, Ont., in this issue, is Pontiac Norline Korndyke 18773, at twelve months of age. He is now at the head of this big herd. See the advertisement.



Horses Need

some tonic, when barned up in winter, to supply the deficiency of exercise and green food.

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is a mixture of roots, herbs, barks and seeds. It tones up the system of a horse and gives him new life and a glossy coat of hair. Makes them strong and healthy. It is the best thing you can give a horse for indigestion, liver trouble, coughs, influenza, hide bound or blood trouble, and it brings a horse through the winter in top-notch condition for spring work.

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THE DI

"We knew morning, w sled lashed, dogs and c in the horse house; they and came Nanook. I and at last what pitiful slowly and bowels han of his belly done for a not difficul the horses them had k his whole a in inquiring dogs should was our fa tinary surge saved the c try; and th do, hate it were gratef do it, for t who had s science. I t the painful feel," he sai got a dog I do it for yo "Nanook k was all over down, the p he stood lik I put my fa "Good-bye," time in his owned him t felt his ton always loved was not the "We hope

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Ten Thousand Miles With Dogs.

From one of the most informing and fascinating books of northern travel ever written, entitled, "Ten Thousand Miles With a Dog Sleigh,"—(Scribner's)—a narrative of winter travel in interior Alaska, by Hudson Stuck, D. D., F.R.G.S., archdeacon of the Yukon, a heroic Church of England missionary among the Indians, Esquimaux and mining camp men of that desolate land, we make the following extract regarding "the good dog Nanook":—

THE DEATH OF OLD NANOOK.

"We knew naught of it until the next morning, when, breakfast done and the sled lashed, we were ready to hitch the dogs and depart. They had been put in the horse stable for there was no dog house; they were loose in the morning and came to the call, all but one—Nanook. Him we sought high and low, and at last Arthur found him, but in what pitiful case! He dragged himself slowly and painfully along, his poor bowels hanging down in the outer hide of his belly, fearfully injured internally, done for and killed already. It was not difficult to account for it. When the horses came in at midnight, one of them had kicked the dog and ruptured his whole abdomen. There was no use in inquiring whose fault it was. The dogs should have been chained; so much was our fault. I doubt if all the veterinary surgeons in the world could have saved the dog, but there was none to try; and there was only one thing to do, hate it as we might. Arthur and I were grateful that neither of us had to do it, for the driver of the mail stage, who had some compunctions of conscience, I think, volunteered to save us the painful duty. 'I know how you feel,' he said slowly and kindly; 'I've got a dog I think a heap of myself, but that dog ain't nothin' to me and I'll do it for you.'

"Nanook knew perfectly well that it was all over with him. Head and tail down, the picture of resigned dejection, he stood like a petrified dog. And when I put my face down to his and said 'Good-bye,' he licked me for the first time in his life. In the six years I had owned him and driven him I had never felt his tongue before, though I had always loved him best of the bunch. He was not the licking kind. We hitched up our diminished team

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You will be able to work your horses every day, an advantage you will appreciate when the rush starts.

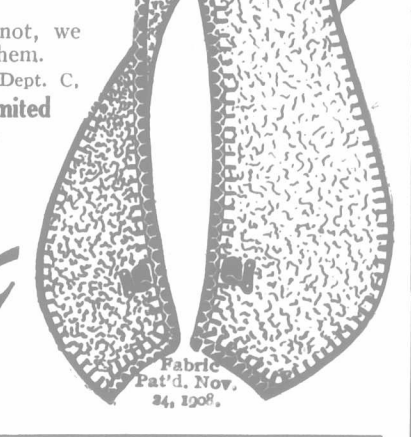
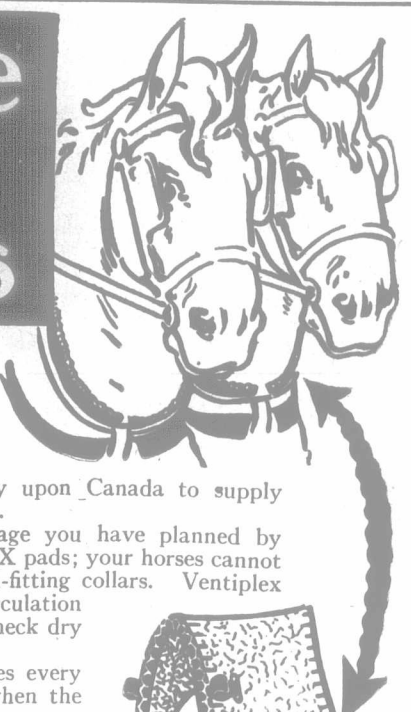
Your dealer should have them, if not, we will gladly tell you where you can buy them.

A booklet awaits your request; address Dept. C, **The Burlington Windsor Blanket Co., Limited** TORONTO, ONTARIO

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Perfection Seed & Grain Separator
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The only mill manufactured that will not blow clover, timothy and weed seeds out with the chaff. Other mills are being discarded everywhere that they come into competition with the Perfection. Grain travels over eight feet of screen before the fan-blast strikes it. A child can turn it. Has compound shake, end motion, galvanized deflectors, and many other advantages too numerous to mention here. See nearest agent, or write for circular "A," giving fuller particulars to

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and pulled out, for we had thirty miles to make in the short daylight and we had lost time already; and as we crossed the bridge over the steaming slough we saw the man going slowly down to the river with the dog, the chain in one hand, a gun in the other. My eyes filled with tears; I could not look at Arthur or he at me as I passed forward to run ahead of the team, and I was glad when I realized that we had drawn out of ear-shot.

"All day as I trudged or trotted now on snowshoes and now off, as the trail varied in badness, that dog was in my mind and his loss upon my heart, the feel of his tongue upon my cheek. It takes the close companionship between a man and his dogs in this country, travelling all the winter long, winter after winter, through the bitter cold and the storm and darkness, through the long, pleasant days of the warm sunshine of approaching spring, sharing labor and sharing ease, sharing privation and sharing plenty; it takes this close companionship to make a man appreciate a dog. As I reckoned it up, Nanook had fallen just short of pulling my sled ten thousand miles. If he had finished this season with me he would have done fully that, and I had intended to pension him after this winter, to provide that so long as he lived he should have his fish and rice every day. Some doubt I had had of old Lingo lasting through the winter, but none of Nanook, and they were the only survivors of my original team.

"Nanook was in as good spirits as ever I knew him that last night, coming to me and plumping his huge fore paws down on my moccasins, challenging me to play the game of toe treading that he loved; and whenever he beat me at it he would seize my ankle in his jaws and make me hop around on one foot, to his great delight. He was my talking dog. He had more different tones in his bark than any other dog I ever knew. He never came to the collar in the morning, he never was released from it at night, without a cheery 'bow-wow-wow,' and we never stopped finally to make camp but he lifted up his voice. There was something curious about that. Only two nights before, when we had been unable to reach the health resort, owing to wind-hardened drifts right across the trail that overturned the heavy sled again and again, swing the gee pole as one would, and had stopped several times in the growing dusk to inspect a spot that seemed to promise a camping place, Arthur had remarked that Nanook never spoke until the spot was reached on which we decided to pitch the tent. What faculty he had of recognizing a good place, of seeing that both green spruce and dry spruce were there in sufficient quantity, I do not know—or whether he got his cue from the tones of our voice—but he never failed to give tongue when the stop was final, and never opened his mouth when it was but tentative.

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Hercules Mixed House Paints—\$1.25 gal. has built a reputation for reliability Mixed in linseed oil, holds its colors longer than paints sold at \$2.00. Will not blister or scale. It is noted for its durability, greater covering capacity and smooth-working qualities.

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Good going P.M. trains December 10 and all trains December 11 and 12.

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All tickets valid to return up to and including December 14, 1914.

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Hampshire Swine and **Lincoln Sheep**. Both sexes and all ages; from imported stock. Prices reasonable.

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Am offering choice young stock in **Poland China and Chester White** and **Shorthorns**, many are winners and the produce of winners at Canada's best shows. Prices moderate. **Geo. G. Gould, R.R. 4, Essex, Ont.**

RIDGEDALE HOLSTEINS—The herd is headed by King Segis Pontiac Duplicate, a 3/4 brother to King Segis Pontiac Alcarta, the \$50,000 bull. The junior herd bull is Pontiac Hengerveld Pieterje, we have a few young bulls and heifers for sale. **R. W. Walker, R.R. No. 4, Port Perry, Ont.** Myrtle Station, C.P.R.; Manchester, G.T.R.

THE DOG'S VOICE.

"I could almost tell the nature of any disturbance that arose from the tone of Nanook's bark. Was it some stray Indian dog prowling round the camp; was it the distant howling of wolves; was it the approach of some belated traveller—there was a distinct difference in the way he announced each. I well remember the new note that came into his passionate protest when he was chained to a stump at the reindeer camp, and the foolish creatures streamed all over the camping-ground that night. To have them right beside him and yet be unable to reach them, to have them brushing him with their antlers while he strained helplessly at the chain, was adding insult to injury. And he kept me awake over it all night, and told me about it at intervals all next day.

"The coat that dog had was the heaviest and thickest I ever saw. On his back the long hair parted in the middle, and underneath the hair was fur and underneath the fur was wool. He was an outdoors dog strictly. It was only in the last year or two that he could be induced voluntarily to enter a house; he seemed, like Mowgli, to have a suspicion of houses. And if he did come in he had no respect for the house at all. When first I had him he would dig and scratch out a dog-house on the coldest night, if he could, and lay himself down comfortably on the snow. Cold meant little to him. Fifty-six, seventy, below zero, all night long at such temperatures he would sleep quite contentedly. The only difference I could see that these low temperatures made to him was an increasing dislike to be disturbed. When he had carefully tucked his nose between his paws and adjusted his tail over all, he had gone to bed, and to make him take his nose out of its nest and uncurl himself was like throwing the clothes off a sleeping man. He never dug a hole for himself in the snow. I never saw a dog do that yet. In my opinion that is one of the nature-faker's stories. A dog lies in snow just as he lies in sand, with the same preliminary turn-round-three-times that has been so much speculated about. We always make a bed for them, when it is very cold, by cutting and stripping a few spruce boughs, and they highly appreciate such a couch, and will growl and fight if another dog tries to take it. They need more food and particularly they need more fat when they lie out at extremely low temperature, and we seek to increase that element in their rations by adding tallow or bacon or bear's grease—or seal oil—or whatever oleaginous substance we can come by.

"He was a most independent dog was Nanook, a thoroughly bad dog, as one would say in some use of that term—a thief who had no shame in his thievery, but rather gloried in it. If you left anything edible within his ingenious and comprehensive reach he regarded it as a challenge. There comes to me a ludicrous incident that concerned a companion of one winter journey. He had carefully prepared a lunch and wrapped it neatly in paper, and he placed it for a moment on the sled while he turned to put his scarf about him. But in that moment Nanook saw it and was gone. Through the snow, over the brush, in and out amongst the stumps the chase proceeded, until Nanook was finally caught and my companion recovered most of the paper, for the dog had wolfed the grub as he ran. He would stand and take any licking you offered and never utter a sound but give a bark of defiance when you were done, and he would bear no ill will in the world and repeated his offence at the next opportunity. Yet so absurdly sensitive was he in other matters of his person, that the simple operation of clipping the hair from between his toes, to prevent the "balling-up" of the snow, took two men to perform, one to sit on the dog, and the other to ply the scissors, and was accompanied always with such howls, and squeals as would make a hearer think we were paying him alive.

"THE DOG-LOVINGEST DOG!"

"Nanook's acquaintance with horses began in Fairbanks the first season I owned him, before I had had the harness upon him, when he was rising two years old. The dogs and I were staying at the hospital we had just established—

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that is as far as your livestock is concerned, in fact you cannot only actually reduce the cost of feeding, but in addition, increase the butter fat in the milk from your cows— increase the growth and weight of your cattle, sheep and pigs—and get better work and efficiency out of your horses.

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Winners and Champions at the Leading Shows

Two to five years old. Black, grey and dapple-grey in color. Weighing from 1,800 to 2,200. All of the large, drafty, heavy-boned type, with the best of feet and legs.

We are in a position to offer selections from the largest importation of Percheron stallions made to Canada this year, and the last to leave France before war was declared.

Anyone interested in securing a Percheron stallion with the best of quality, size and breeding should arrange to see our horses before buying, as we are sure that we can more than suit them.

Our terms are liberal, our guarantee the most satisfactory, and our insurance policy protects from loss of any kind.

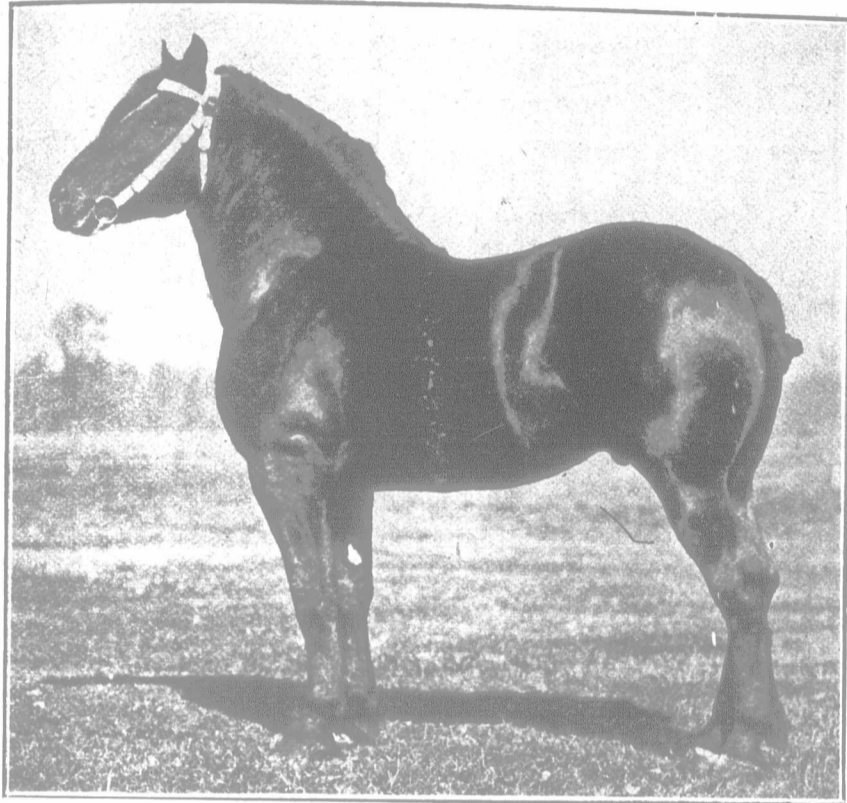
We invite correspondence from all interested in the great Percheron horse, and advise buyers not to delay too long, as the supply this year is limited, as it is impossible to import more at present.

A visit to our stables will be of great interest to all Percheron breeders.

R. Hamilton & Son, The Pioneer Stud, Simcoe, Ont.

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Quality in Shire Fillies, and one two-year-old Stallion. Shorthorns of all ages; young bulls and heifers a specialty. Lincolns, Shearling rams and ewes. Ram and ewe lambs of the choicest breeding and individuality. Come and see us. Long-Distance Telephone. **JOHN GARDHOUSE & SONS, WESTON, ONTARIO**



Lenoir (4443) (102974) three-year-old Percheron stallion, first prize Toronto Exhibition, 1914. Weight 2,020 lbs.

PERCHERON Stallions and Mares

The largest importation to Canada this season. Although the war has stopped all importations of horses, our prices and terms are the same as usual.

Write for large illustrated catalogue.

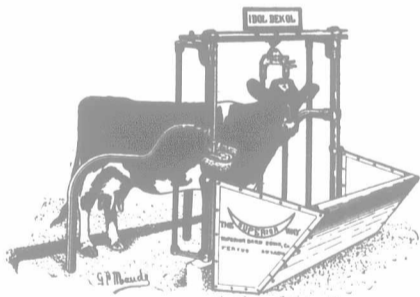
HODGKINSON & TISDALE
Beaverton, Ontario

cause in those days there was nowhere else to stay—waiting for the winter. One of the mining magnates in the infancy of the camp (broken and dead long since; Bret Harte's lines, 'Busted himself in White Pine and blew out his brains down in 'Frisco,' often occur to me as the sordid histories of to-day repeat those of fifty years ago) had imported a saddle horse, and, as the mild days of that charming autumn still deferred the snow, he used to ride out past the hospital for a canter.

"The dog had learned to lift the latch of the gate of the hospital yard with his nose and get out, and when I put a wedge above the latch for greater security he learned also to circumvent that precaution. And whenever the horse and his rider passed, Nanook would open the gate and lead the whole pack in a noisy pursuit that changed the canter to a run and brought us natural but mortifying remonstrance. The rider had just passed and the dogs had pursued as usual, and I had rushed out and recalled them with difficulty. Nanook I had by the collar. Dragging him into the yard, shutting the gate, and putting in the wedge, I picked up a stick and gave him a few sharp blows with it. Then flinging him off, I said, 'Now, you stay in here, I'll give you a sound thrashing if you do that again!' I was just getting acquainted with him then. The moment I loosed his collar the dog went deliberately to the gate, stood on his hind legs while he pulled out the wedge with his teeth, lifted the latch with his nose and swung open the gate, and standing in the midst turned round and said to me: 'Bow-wow-pow-wow-wow-wow!' It was so pointed that a passer-by, who had paused to see the proceedings, was leaning on the fence, said to me: 'Well, you know where you can go to.' That's the dog-gondest dog I ever seen!"

"It was a pleasure to come back to Nanook after my long absence—a pleasure I was used to look forward to. There was no special fawning or demonstration of affection; he was not that kind, but I might have from any of the other, but from none but Nanook the bark of welcome with my particular inflection in it that no one else ever got. 'Well, well; here's the boss, again; glad to see you back,' that was about all a said. For he was a most independent dog, and took to himself an air of partnership rather than subjection. Any man can make friends with any dog if he will; there is no question about that, but it takes a long time and mutual trust and mutual forbearance and mutual appreciation to make a partnership. Not every dog is fit to be partner with a man; nor every man, I think, fit to be partner with a dog.

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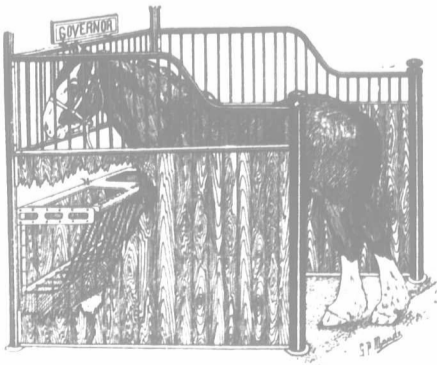
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Imported and Canadian-bred. With over 25 head to select from, I can supply, in either imported or Canadian-bred, brood mares, fillies, stallions and colts. Let me know what you want.

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THE PARTNERSHIP ENDED.

"Well that long partnership was dissolved by the horse's hoof, and I was sore for its dissolution. There was none left now that could remember the old days of the team save Lingo, and he grew crusty and somewhat crabbed. He was still the guardian of the sled, still the insatiable hand-shaker, but he grew more and more unsocial with his mates, and we heard his short, sharp, angry double bark at night more frequently than we used to. He reminded me of the complaining owl in Gray's 'Elegy.' He resented any dog even approaching the sled, resented the dogs moving about at all to disturb his 'Ancient solitary reign.'

"His work was well-nigh done, and old Lingo had honestly earned his rest. With the end of this winter he would enter upon the easy old age that I had designed for both of them. Lingo had never failed me, never let his traces slack if he could keep them taut, never in his life had whip laid on his back to make him pull; a faithful old work dog for whom I had a hearty respect and regard. But he never found his way to my heart as Nanook did. I loved Nanook, and had lost something personal out of my life in losing him. There are other dogs that I am fond of—better dogs in some ways than either Nanook or Lingo, swifter certainly—but I think I shall never have two dogs again that have meant as much to me as these two. All the other dogs were of that last two years and thought they belonged to Arthur, who fed them and handled them most. But Nanook and Lingo had seen boys come and boys go, and they knew better.

"Six years is not very much of a man's life, but it is all a dog's life, all his effective working life. Nanook had given it all to me, willingly, gladly. I pulled so freely because he loved to pull. He delighted in the winter, in the snow and the cold; rejoiced to be on the trail, rejoiced to work. When we made ready to depart after a few days at a mission or in a town, Nanook was beside himself with joy. He would burst forth into song as he saw the preparations in hand, would run up and down the gamut of his singular flexible voice, would tell as plainly to all around as though he spoke it in English and Indian and Esquimaux that the maction had irked him, that he was eager to be gone again.

"Well, he was dead, as fine a dog as ever lived, as faithful and intelligent a creature as any man ever had, not of human race, for servant, companion and friend. And I thought the more of myself that he had put his tongue to my nose when I said good-bye to him."

Get Your Horses in Condition to Command the Top Prices

HORSES never have been so much in demand as they are to-day, but buyers are only interested in sound horses—sound horses bring good money. It will be money in your pocket to keep your horses in good condition, and if any are lame or blemished get them sound now.



My booklet, "How to Remove Blemishes," is free for the asking. It recommends **ABSORBINE**, of course, because this is the famous preparation that I have been making for about a quarter of a century, and I believe it is the safest and most effectual liniment you can use.

ABSORBINE is safe and pleasant to use—it is made of herbs, and does not blister or remove the hair—horse can be used while being treated. In addition to being a liniment it is a powerful antiseptic and germicide, which doubles its efficiency and uses. Applied to sores, cuts and boot chafes it prevents infection, kills the germs and promotes rapid healing.

ABSORBINE is economical, as only a few drops are required at each application. One ounce of **ABSORBINE** added to a quart of water or witch hazel makes a good antiseptic, general purpose liniment.

Use **ABSORBINE** to reduce Bursal Enlargements, Bog Spavins, Thoroughpins, Puffs, Shoe Boils, Capped Hocks, Swollen Glands, Infiltrated Parts, Thickened Tissues, Rheumatic Deposits, Enlarged Veins, Painful Swellings and Affections; to reduce any strain or lameness; to repair strained, ruptured tendons, ligaments or muscles, to strengthen any part that needs it.

Your druggist can supply you with Absorbine or I will send you a bottle postpaid for \$2.00. Write me if you have a case requiring special directions or about which you would like information.

W. F. Young, P.D.F., 258 Lyman's Buildings, Montreal, Can.

ABSORBINE IS MADE IN CANADA.

Great Combination Sale

SHORTHORN CATTLE

Sixty Females, Sixteen Bulls

Being the entire Plaster Hill Herd, the property of S. Martindale & Son, Caledonia, Ont., and twenty head from the Spruce Lodge Herd, the property of W. A. Douglas, Caledonia, Ont., at the

FAIR GROUNDS, CALEDONIA, ONTARIO,
Wednesday, Dec. 16, 1914

We have in this offering, the result of nearly sixty years' careful selection and breeding. Nearly all the most fashionable families are represented: Mina, Duchess Strathallan, Bessie, Victoria, Roan Lady, Snow Beauty, Pansy, Daisy, Louisa, Lavinia and Lady Jane strains make up the majority of the animals.

Many of the females have qualified in the Official Record of Performance, and a number are still running. Our records already made, range from 5,004 pounds for heifers, to 11,641 pounds for adult cows for the season.

While many of our breeding females show great milking persistency, we can assure the public that excellent Shorthorn type prevails throughout the entire offering, and include a number of show-ring individuals. They all go on December 16th, and if you want good foundation cows, or a young bull to head your herd, come and get it at your own price.

TERMS: Cash, or ten months' credit on bankable paper at five per cent. per annum.

Sale to Commence at 12 o'Clock Sharp

Catalogues now ready. Apply to:

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Caledonia, Ont., R.M.D. Caledonia, Ont., R.M.D.

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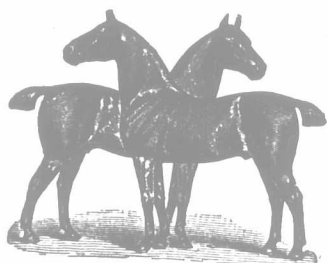
Gossip.

E. C. GILBERT'S HOLSTEIN SALE.

A number of the females to be sold at the big Holstein sale of E. C. Gilbert, at Talbotville, on Tuesday, Dec. 22nd, are daughters of Sir Abbekerk Paul De Kol, a great-grandson of the renowned cow, Tidy Abbekerk. The younger ones are sons and daughters of the grandly-bred bull, Royalton Korndyke Major, a great-grandson of the famous Pontiac Korndyke, his sire being the intensively-bred Ragapple Korndyke 5th, and his dam, Royalton Re Kol Rose, seven-day record 609.7 lbs. milk, 26.28 lbs. of butter, and her one-day milk record, 111.1 lbs. The present stock bull, to which all the females are bred, is Ormsby Hartog, a son of Mercedes Pietertje Hartog 7th, whose dam's record is 116 lbs. of milk a day, 34.60 lbs. of butter in seven days. The dam of Ormsby Hartog is Ormsby's Belle, four-year-old record 461.3 lbs. milk, 21.5 lbs. butter in seven days. She is a sister to Jenny Bonerges Ormsby, 33.01-lb. record, and Francie Bonerges Ormsby, record 29.10 lbs. This kind of breeding is bound to leave results, and, combined with a herd whose butter-fat test in half those in milk is 4 per cent. and over, and all others well over 3 per cent., it certainly looks like a gilt-edged proposition to stock up with Holsteins at this sale. None of the females have ever been officially tested, which is all in the buyer's favor, but in private weighing for a year, the splendid yield of 16,050 lbs. has been reached on ordinary care and twice-a-day milking.

Robbie's grandfather was a veteran of the Civil War, and in talking to his little grandson about the battles he said: "Nearly a generation and a half ago, Robbie, my head was grazed by a bullet in the battle of Chickamauga."

Robbie looked at the bald pate of his grandsire attentively and said: "Not much grazing there now, is there?"



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We carry a complete line of the purest drugs; if you require some of any kind, let us hear from you, and we will quote at very low price.

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We made the grade on a darkened ship without meeting a Kaiser cruiser. Our 1914 importation are home. Stallions and fillies especially selected for character, quality and breeding. If you want a topper, come and see them.
Smith & Richardson, Columbus P.O.
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For the month of December, to make room, we will quote special prices on 15 young bulls, some Toronto winners among them; also females any age.
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Here is offered by the Loyal Scot. Place for sale 10 high-class young bulls of herd-heading quality and the best of the milk and type. A number of the leading families. Consult us before buying.
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MOFFAT, ONTARIO.

Traveling Cattle.

Along the dusty, noisy street we pass,
Footsore and weary, stumbling o'er the road,
In summer's heat and winter's cold, alike,
Obedient to the whiplash and the bark
Of watchful dog. When noonday sun
beats down
Upon us and we fain would rest awhile
Beneath some grateful shade, or lave at
will
In some cool stream, we must press on,
forsooth,
Because we are but cattle and we block
The busy street. Granted we do, indeed,
Yet not of our accord we travel thus.
We love the quiet fields where limpid
pools
Await our eager lips, and where, knee-deep,
We can stand peacefully with switching
tails,
Nor match our hoof-beats to the deafening
roar
Of swift electrics and wild touring cars.
But since 'tis man's decree that through
the streets
Our weary, toilsome way we must pursue,
Should not humanity devise some means
Whereby our suffering may be assuaged?
Some fount beside the road where all
in turn,
Could dip our nostrils would new courage
give
To fare us on our way. Oh, when you
see
A drove of us patiently stumbling by,
In summer sunshine or through ice and
snow,
Remember we are travellers unused
To city streets, their traffic and their din.
And give us thoughtful care as on we go.
—By Helen M. Richardson, in Our Dumb
Animals.

Cook—And sez I, "I think I'll find another job."
Friend—"What did the missis say?"
Cook—She sez, "Bedad, an' Oi'll give you twenty-five dollars when yez lave if yez don't go."

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No blistering or loss of hair. A Signed Contract Bond to return money if remedy fails on Ringbone—Thoroughpin—SPAVIN—and ALL—Shoulder, Knee, Ankle, Hoof and Tendon Disease. You risk nothing by writing; it costs nothing for advice and there will be no string to it. Save-The-Horse BOOK, Sample Contract and ADVICE—All Free (to Horse Owners and Managers.) Write today. Address,

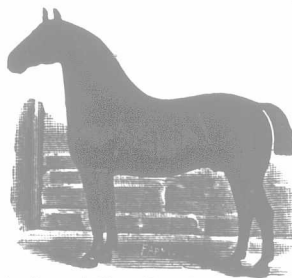
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Druggists everywhere sell Save-The-Horse WITH CONTRACT, or we send by Parcel Post or Express paid.

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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hocks, Strains or Bruises, Thick Neck from Distemper, Ringworm on cattle, and to remove all unnatural enlargements.

This preparation, unlike others, acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E.C. Mailed to any address upon receipt of price \$1.00.—Canadian agents:

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For Sale—Several young bulls from the imported sire and prize-winner, "Pradamere." Address: A. Dinsmore, Manager, "Grape Grange" Farm Clarksburg, Ontario

Beaver Hill Aberdeen - Angus
Choice, young Bulls fit for service. Females all ages, for sale.
Alex. McKinney
R.R. No. 2, Erin, Co. Wellington, Ontario

Tweedhill Aberdeen - Angus
Excellent young Bulls of serviceable ages. Heifers in calf, etc.
James Sharp, R.R. No. 1, Terra Cotta, Ont. C.P.R. and G.T.R., Cheltenham Station.

Please mention "The Farmer's Advocate."

Gossip.

R. B. PINKERTON'S CLYDESDALES.

Few Canadian breeders of Clydesdale horses have had the same measure of success as has attended the efforts of R. B. Pinkerton, of Essex, Ont., if success is measured by the number of awards earned in the show-ring, for certain it is that few, if any, breeders of Clydesdales have won so many of the highest awards as has Mr. Pinkerton, and principally on animals of his own breeding. Toronto, Guelph, London, Windsor, Detroit, and many other shows of lesser importance have all contributed largely to the success of his Clydesdales. Practically all of his younger prizewinners are the get of his noted sire, Imp. Keir Democrat [7018] (12187). Few stallions the breed has ever produced have been so pronounced a success as a sire, carrying the best blood of the breed, and himself a well-balanced combination of the big size, the draft character, and the hard, flat, quality kind of bone. He sired many winners in Scotland, and very many in Canada, but to him should not be given all the credit for the success of this stud, for the dozen big, quality, imported brood mares with which he is used have some claim for the excellence of their get. For this season, Mr. Pinkerton is offering several extra choice two- and three-year-old stallions and a number of fillies. Be sure and see them before buying.

BERKSHIRES AND SHORTHORNS AT ELMHURST.

For many years Berkshire hogs and Shorthorn cattle have been the specialties in pure-bred stock breeding on the Elmhurst Farm of H. M. Vanderlip, at Cainsville, Ont. During those years Mr. Vanderlip has made many importations of Berkshires from England, thereby strengthening his herd and infusing new blood. Greater length and more depth has ever been his standard when making his selections for breeding purposes. Today in his Berkshire herd are nine imported boars, and every one of them shows a remarkable length and perfection of bacon type, the old-fashioned, thick, short type, having been entirely eradicated by systematic selection and breeding. Bred for many years in the Old Land on strict family lines, this herd represents the noted Violas, Highcleres, Comptons, and Augustas, lines that stand at the head of the best in England. The chief stock boar in service is the Violet-bred Suddon Torredor (imp.), a hog of great length and scale. Second in service is the Augusta-bred Augustus 3rd (imp.). With these two choice sires, Mr. Vanderlip can supply not a kin of either sex. On hand just now are a number of both sexes, from breeding age down, a number of young sows being already bred. Mr. Vanderlip reports trade as exceedingly good, his shipments going to every Province in the Dominion.

The herd of Shorthorns is represented by the Rosalies and Estelles, both pure Scotch, but excelled by none as the ideal dual-purpose Shorthorn. They are big, heavy cattle, and right good milkers. Imp. Eliza, the foundation cow of the Rosalies, is an extra large cow, good for over 40 pounds a day for months after freshening, and two-year-old daughters of hers have given the same amount when hand milked. For some years at the head of the herd was the good-breeding bull, Chancellor's Model, a son of Imp. Bapton Chancellor, and out of Imp. Marchioness 4th. All the younger things over a year are daughters of his, and there are some right choice ones carrying a wealth of flesh evenly distributed. The present stock bull is the Kinellar Rosebud, Royal Warrant (imp.), a son of the great Newton Chrystal, winner of first at the Royal, and one of the most successful sires the breed has ever known in Scotland. At the time Royal Warrant was imported two years ago, seven of his brothers, sons of Newton Chrystal, had been sold for an average of \$4,550.00, and seven of his sisters by the same sire, for an average of \$1,728.50. Royal Warrant is one of his best sons, a nice, dark roan. He is immensely thick and mellow, and has an ideal coat of hair. He is transmitting these qualities to his get. There are several young bulls got by him as well as several heifers. One of the former is a red six-months-old, and a white heifer the same age, are two of the best calves we have seen this year.

Better Results For Less Money

No farmer, dairyman or stock-raiser can mix feeds himself that will approach the tested CALDWELL'S STOCK MEALS, even by spending twice the money. Take

CALDWELL'S Cream Substitute CALF MEAL

It contains Linseed, Wheat, Oat, Corn, Locust Bean, Pea and Molasses Meal in correct proportions to give best results. We guarantee these ingredients to the Government. Analysis proves they provide PROTEIN 19 to 20%, FAT 7 to 8%, FIBRE 5%. CALDWELL'S CALF MEAL furnishes an ideal substitute for whole milk and raises just as good calves. Write for descriptive booklet.

CALDWELL'S DAIRY MEAL

is a high protein, complete cow ration specially planned for the production of milk. Government guaranteed—made from selected materials, carefully re-cleaned. Analysis shows PROTEIN 20%, FAT 6.3% FIBRE 10%. Will increase the milk flow and keep your herd in top-notch condition. Booklet free.

CALDWELL'S MOLASSES MEAL

the famous, unequalled upbuilder of cattle, horses, sheep and hogs. It contains 84% Pure Cane Molasses (Not Beet Molasses) and 16% Edible Moss. Besides its wonderful nutritive value, it has digestive and antiseptic properties that quickly benefit any animal fed with it. Cuts down feed bills and gives better results. Write for booklet.

The Caldwell Feed and Cereal Co., Limited
DUNDAS Largest Feed Mills in Canada ONTARIO

BULLS AND FEMALES

We have a full line of on hand. We have nothing but the best Scotch families to choose from. Our cows are good milkers.

A. F. & G. Auld, Eden Mills, P.O. Guelph, 5 Miles Rockwood, 3 Miles

100 ESCANA FARM SHORTHORNS 100

For sale, 25 Scotch bull calves from 6 to 12 months; 25 Scotch heifers and young cows bred to Right Sort, imp., and Raphael, imp., both prize-winners at Toronto.

MITCHELL BROS., Props., Burlington P.O., Ont. Jos. McCrudden, Mgr.
Farm ¼ mile from Burlington Junction.

SHORTHORNS of breeding, style and quality. If in want of an extra choice herd-header, carrying the best blood of the breed, or a limited number of right nice yearling heifers, write us: we can supply show material of either bulls or females.

Long-Distance Telephone **Geo. Gier & Son, R.R. No. 1, Waldemar, Ont.**

Scotch Shorthorns FOR SALE—A number of young bulls of serviceable age good individuals and of splendid breeding. Some show bulls amongst them. Visitors met by appointment. Bell Telephone. **W. R. ELLIOTT & SONS, R.R. No. 4, GUELPH, ONT.**

Meadow Lawn Shorthorns We are offering Proud Monarch, No. 78792 for sale, as we have a number of his heifers of breeding age. He is sound and right in every way, and anyone wanting a right good sire would do well to come and see him. He is a bull of outstanding merit. To see him is to make you wish you owned him. Also young bulls and heifers that will please the most exacting buyers. Long-Distance Telephone. **F. W. EWING, R.R. No. 1, ELORA, ONTARIO**

10 Shorthorn Bulls, 9 Imported Clydesdale Mares
Our bulls are all good colors and well-bred. We also have Shorthorn females of all ages. In addition to our imported mares, we have 7 foals and yearlings. Write for prices on what you require.
Bell Telephone. **W. G. PETTIT & SONS, Freeman, Ontario**
Burlington Junction, G.T.R., ¼ mile.

Scotch—SHORTHORNS—English—If you want a thick, even fleshed heifer for either show or breeding purposes, or young cows with calves at foot, or a thick, mellow beautifully-fleshed young bull, or a right good milk bred to produce milk; remember I can surely supply your wants. Come and see.
A. J. HOWDEN Myrtle C.P.R.; Brooklyn, G.T.R. COLUMBUS, P.O., ONT.

SHORTHORNS Scotch Bates and Booth, yes, we have them, pure Scotch, pure Booth and Scotch-topped Bates. Young bulls of either strain. Heifers from calves up. One particularly good two-year-old Booth bull, ideal dairy type.
Geo. E. Morden & Son - Oakville, Ontario

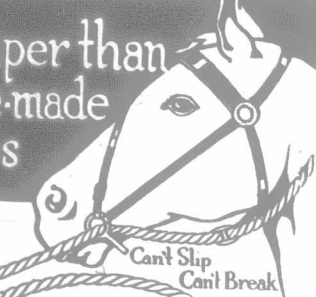
SHORTHORNS and CLYDESDALES We have a nice bunch of bull calves that were a year old in Sept., and are offering females of all ages; have a choice lot of heifers bred to Clansman—87809—One stallion three years old, a big, good quality horse, and some choice fillies, all from imported stock.
A. B. & T. W. Douglas Long-Distance Phone Strathroy, Ontario

Willow Bank Stock Farm Shorthorns and Leicester Sheep. Herd established 1855; flock 1848. The imported Cruickbank Butterfly Roan Chief—60865—heads the herd. Young stock of both sexes to offer. Also an extra good lot of Leicester sheep of either sex; some from imported sires and dams.
James Douglas, Caledonia, Ontario

Maple Grange Shorthorns Pure Scotch and Scotch-topped. Breeding unsurpassed. A nice selection in young bulls, and a limited number of thick, mossy heifers.
R. J. Doyle, Owen Sound, Ontario

IRVINE DALE SHORTHORNS Herd is headed by Gainford Select (a son of the great Gainford Marquis). A number young bulls of choice breeding and out of good milking strains. Also a few heifers.
J. Watt & Son :: Elora Station :: Salem, Ontario

Cheaper than Home-made Ties



25 Cents postpaid

Strong as two knots—but won't bind. Handy as a snap—but won't break

If you bought as good rope as the 1/2-inch Hard Rope that goes into this tie and fitted it with snap and ring—a flimsy thing at best—you would pay more than the price of Griffith's Handy Tie.

Griffith's HANDY ROPE TIE

So simple you can put it on or off with your mitts on. Strong and proof against slipping or binding. Live dealers sell them. If yours does not, we will mail one for 25c. postpaid (30c west of Fort William). Write to-day. Ask for our Book of Bargains, full of money savers, on sale everywhere.

G. L. GRIFFITH & SON
DEPT. A
Stratford, Ont.

SHORTHORNS

Locharbar Stock Farm is offering a choice lot of young bulls of breeding age, some cows and heifers the get of Broadkirk Prince (imp.) a noted milk and beef-producing strain, some heifers at 1st calf giving 35 to 40 lbs. milk a day. Prices and terms reasonable. Also M. Bronze Turkey pairs and trios furnished not akin.

D. A. GRAHAM, Wyoming, Ont.

SHORTHORNS

8 bulls from 7 to 15 months, some are herd headers both in quality size and breeding, some are thick, fleshy, sappy bulls that will get good steers, also 10 heifers and a few young cows bred on milking lines; prices easy. Write me your wants.

Stewart M. Graham, Lindsay, Ont.

Sunnyside Shorthorns

For sale or exchange to prevent inbreeding, Roan Prince = 80859 =. He is a show bull and as sure and useful as ever; also four choice young bulls fit for service and females of all ages for sale; apply.

Wallace E. Gibb, Embro, Ont., R.R. No. 2

Spring Valley Shorthorns

Herd headed by the two great breeding bulls, Newton Ringleader (imp.) 73783 and Nonpareil Ramsden 83422. Can supply a few of either sex.

KYLE BROS., DRUMBO, ONTARIO
Phone and Telegraph via Ayr.

SHORTHORNS

Three bulls, 11 months, a number of younger cows with their calves, cows in calf and yearling heifers for sale, good individuals. Good producers. Inspection solicited.

J. T. GIBSON, DENFIELD, ONT.

Oakland 62 Shorthorns

Visitors say our herd, numbering 62 head, look like good breeders, feeders and milkers. Now that is just what they are, many fine factors and bulls for sale. No fancy prices.

JNO. ELDER & SONS, HENSALL, ONT.

GEDARDALE SHORTHORNS

For this season we have some extra nice thick, sappy bulls. Pure Scotch and Scotch topped. Also cows and heifers.

DR. T. S. SPROULE, Markdale, Ontario

SHORTHORNS

Young bulls and females of the best quality and quality, heavy milking strain and flesh condition; also the imp. Duffin bull, Scotch, 18 months, by Thos. Graham, R. R. No. 3, Port Perry, Ont.

Shorthorns and Swine Have a choice young bull, also cows and heifers of show material, also calves at foot. Also choice Yorkshire sows.

ANDREW GROFF, R. R. No. 1, ELORA, ONT.

DR. BELL'S Veterinary Medical Wonder

\$1.00 bottles to horsemen who will give the Wonder a fair trial. Guaranteed for Inflammation of the Lungs, Bowels, Kidneys, Fevers, Distemper, etc. Send 10 cents for mailing, packing, etc. Agent wanted. Write address plainly. Dr. Bell, V.S., Kingston, Ont.

Please mention "The Farmer's Advocate"

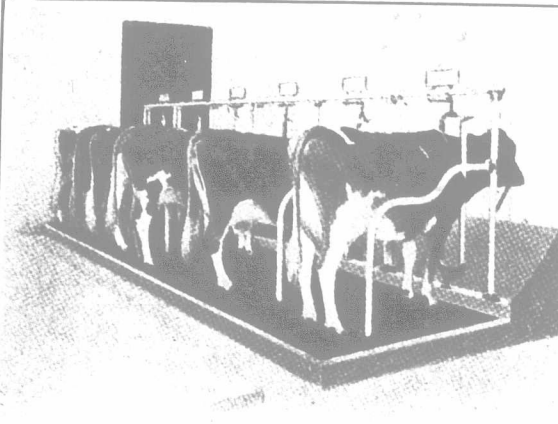
Gossip.

THE MARTINDALE-DOUGLAS SHORT-HORN SALE.

The majority of the Shorthorns to be sold at the big dispersion sale of F. Martindale & Sons on Wednesday, Dec. 16, are bred on their sire's side from the Bessie-bred bull, Bandalier, a son of Imp. Sirius, dam Imp. Red Bessie 2nd. Following him was the Duchess-bred bull, Sittytton Pride, a son of Imp. Sittytton Victor, dam Imp. Lady Belle. Then came the Marr Roan Lady bull, Imp. Peeside Chief, who is the sire of many of the younger ones. Among the pure Scotch-bred females is Mina Lass 20th, by Imp. Bandalier. This cow has a yearling daughter, and a nice three-months-old bull calf by the late stock bull, Rolla's Sultan, a Rolla-bred son of the Cruickshank Butterfly bull, Imp. Bandsman. Another is a Bruce Mayflower, by the Toronto grand champion bull, Missie Marquis. As previously stated, the big majority of the herd are English, tracing to Beauty (imp.) 30, Lady Jane (imp.) 281, Lady Kingscote (imp.) 283, Duchess of Athol (imp.), Lavinia (imp.), Lily (imp.), Rose of Sharon (imp.), Red Rose (imp.), and several others belong to the noted old milking tribe, Waterloo Daisy, some of which have given for Mr. Martindale 54 lbs. of milk a day, and 18 lbs. of butter in seven days. In R. O. P. tests the following records have been made: Bessie Lowbanks 2nd, champion at Guelph last December in the test, record 52 lbs. a day, 11,600 lbs. in twelve months. Empress Beauty, five years old, 6,560 1/2 lbs. in less than nine months. Dalmeny Duchess, three years old, nearly 8,000 lbs. in seven months. Lavinia Countess, three years old, 5,004 lbs. in 277 days, and others equally as good. Daughters of these cows, two years old, are giving along 30 lbs. a day. Coupled with this big production is size and heavy fleshing. There will also be sold at the same time a consignment of twenty head from the high-class herd of W. A. Douglas, of Caledonia, consisting of sixteen females and four bulls, making a total of seventy-five head, sixteen of which are young bulls, the balance females. This is an exceptionally well-bred consignment, and up to a high standard of individual merit. Several of them are daughters and granddaughters of the Marr Beauty cow, Beauty 32nd (imp.), by Count St. Clair, a number of the others belong to that popular tribe, the Strathallans, and the balance on their dam's side trace to Louisa (imp.), Daisy (imp.), and Beauty (imp.) 30. Several of them are daughters of the great bull, Joy of Morning (imp.), others were sired by the Cruickshank Butterfly-bred bull, Roan Chief (imp.), the Missie-bred bull, Royal Star, the Kiblean Beauty-bred bull, Prince Sunbeam (imp.), and their dams by such noted sires as Joy of Morning (imp.), the Boyne Lady-bred bull, Scottish Banner, Christopher (imp.), Count St. Clair (imp.), and Scotland's Challenge (imp.). The young bulls of the consignment are sons of Imp. Prince Sunbeam and Imp. Roan Chief. Parties from a distance will not be disappointed in the quality of the cattle to be sold at this sale, and care will be taken to have them in good condition. First-class hotel accommodation will be found at the town of Caledonia for all who desire it.

"Asking a Favor." "Can I believe my eyes?" exclaimed Mr. Tinkins, as he confronted the burglar. Mr. Tinkins had been sent down in the middle of the night to investigate a strange noise, which proved to be the family silver in possession of knocking up. The burglar looked at his arm and Mr. Tinkins looked at his knee. "I don't know," he said, "I've never seen a burglar before."

The Cow Stall Floor Problem



A good floor for cow stalls, calf and bull pens, horse stalls and pigeries is something every up-to-date stockman and farmer wants. A floor that combines the good and eliminates the bad qualities of both wood and cement is found in

Cork Paving Brick

Experience has shown that Cork Paving Brick possesses all the good features of wood and cement, with none of their disadvantages.

Points About Cork Paving Brick:

First—They are always warm to the touch, summer or winter. Second—They are resilient, because both cork and asphalt (which make Cork Paving Brick) are elastic substances. This removes the danger of hoof trouble and "bunchy" joints.

No "bunchy" joints here.

Third—They are never slippery, wet or dry.

Fourth—They are thoroughly sanitary.

Fifth—They are remarkably durable in service. You see, Cork Brick have no grain like wood, and hence do not splinter, and are not rigid and brittle like cement, and therefore do not crumble.

Sixth—They are easy to lay in old or new barns.

Seventh—They are reasonable in cost, taking into account not merely first cost but the cost in the long run, and considering their many advantages.

Cork Paving Brick

Make an excellent floor for horse stables

For samples, full information and folder write



If Cork Brick wear under horses, aren't you safe in putting them under your cows?

THE KENT CO., Limited, Canadian Express Building Montreal, Quebec

Salem Stock Farm Home of the Champions

Special Prices of Twenty Shorthorn Bulls During Winter Fair Week. Many of them good enough to head the best herds. Others big and growthy that will sire the best kind of steers. Elora is only thirteen miles from Guelph. Three Trains daily each way.

J. A. WATT FLORA, ONTARIO

BELMONT FARM SHORTHORNS

Herd headed by "Nero of Cluny" (imp.) and Sunnyside "Marquis". For sale a number of young bulls and heifers, also young cows sired by "Missie Marquis" with calves at foot.

F. W. SMITH & SON, R. R. NO. 2, SCOTLAND, ONTARIO Long Distance Telephone.

Rosedale Stock Farm

20 Shorthorn Bulls for sale, ranging from 4 to 13 months of age, good colors, good breeding and good individuals, 6 of which are from Imported Dams; also 1 Leicester Shearling Ram and a few Ram Lambs.

J. M. Gardhouse :: G.T.R. and C.P.R. :: Western P.O., Ont. Street Railway and Long-Distance Telephone.

SHORTHORNS

I have 15 young Shorthorn bulls, some fit for service now. Part of them are bred and made so that they are fit to head the best herds in any country; some of them are bred from the best-milking kind that will produce money-making cattle; some SHROPSHIRE and GOSWOLD rams and ewes of all valuable ages. Write for what you want and price.

Robert Miller, Stouffville, Ontario

Poplar Hall Shorthorns

If you want a herd-header of the highest breeding, visit our farm; sired by the great Uppermill Omega, imp.; we have C. Bittell-bys and Lovelys; Marr Roan Ladies and Cinderellas, from 7 to 18 months of age.

MILLER BROS., R.R. No. 2, CLAREMONT, ONTARIO
Claremont C.P.R. Pickering G.T.R. Greenburn C.N.R., Sta.

BULLS AND FEMALES

At greatly reduced prices, as my sale had to be called off on account of the weather. Herd must be reduced, as I am short of feed and stabling. Low prices for quick sale.

Myrtle, C. P. R. and G. T. R. John Miller, Ashburn, Ont.

Springhurst Shorthorns

Shorthorn cattle have come to their own, the demand and prices are rapidly increasing, now is the time to strengthen your herd. I have over 100 in my very choice. Bred in my great prize-winning strain. Only one bull left—a red 18 months old.

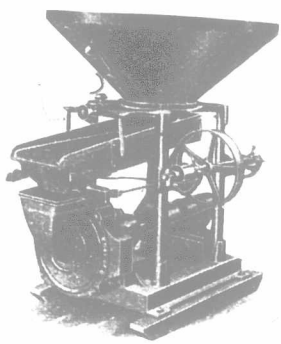
Harry Smith, HAY P. O., ONT. Exeter Str.

Northynd R. O. P. Shorthorns and Jerseys

For Sale—Our noted sire of big milkers, St. Clare = 81578 = a Clara bred, son of Waverly, sired by his sons out of R. O. P. dams; also Shorthorn and Jersey females. Official records in our possession. **G. A. JACKSON, DOWNSVIEW P.O., WESTON STATION.**

The Champion Feed Grinder

THE BEST IN THE WORLD A MONEY SAVER Highest awards wherever exhibited



Feed Grinder

Our feed grinder enables the practical farmer to do his grinding easily right in his own barn. Built in different sizes, suitable for farmers and millers. We also manufacture an Oat Crusher. Write for catalogues. You will be interested.

S. VESSOT & CO., Joliette, Que. Sole Manufacturers of Canada, Limited. Sold by International Harvester Co. of Canada, Limited. London, Ont.; Hamilton, Ont.; Ottawa, Ont.; Montreal, Que.; St. John, N. B.; Brandon, Man.; Winnipeg, Man.; Calgary, Alta.; Edmonton, Alta.; Regina, Sask.; Saskatoon, Sask.

Boo Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid blemish—Log Spavin, Thoroughpin, Splint, Curb, Capped Hoof, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket

describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists 75 Church Street, Toronto, Ont.

THE EQUIVALENT OF

2 Tons of Bran For \$30

You get this and your "Good Luck" Brand Cotton Seed Meal. This meal is guaranteed with the Dominion Government to contain a minimum of 41% protein. You take no chances. Place an order today and commence using this high-quality feed.

Prices: In ton lots, \$1.55 per 100 lbs. 1/2-ton lots, \$1.60 per 100 lbs. 500-lb. lots, \$1.65 per 100 lbs.

Terms: Cash with order

Crampsey & Kelly Dovercourt Rd., TORONTO

2 Young Jersey Bulls, Butter Bred Bulls. Dam No. 1, M. B. 2155 A.I.C.C. record for 1-1/2 year as a 2-year-old tested through Live Stock Branch, Ottawa, 6591 1/2 lbs. milk, 3.7 fat, 48 lbs. of butter. Rosette's Emmet Butter Kd. strong in all of Financial Commission record 131 1/2 lbs. milk in one year. Dam No. 2, Fox. lbs. milk in one year, 134 1/2 lbs. of butter; her 2-year-old sister's record in one year, 7533 lbs. milk, 182 lbs. butter; Rosette's Emmet Butter Kd. 101 1/2 A.I.C.C. George L. L. Hwaite, R. No. 1, Gederich, Ont.

Woodbine Holsteins

Young bull, 1 bull calves, sired by Duke Beard. Pietertje's dam's record 32.52 lbs. butter, and his two daughters are each 31-lb. cows, with 30-lb. dams with 30-lb. granddaughters. These generations are 30-lb. cows. If you want a bull that will give you a sire, write to A. KENNEDY & SON, R.R. No. 2, Paris, Ont. (S.E. of Paris, C.P.R.; Paris, G.T.R.)

The Little Landers.

(Continued from page 2090.)

The question naturally arises, "How does he do it?"

Obviously, great advantages accrue from the diversion of the unearned increment from the pocket of the land speculator to the civic treasury for public improvement, from the construction of a spacious auditorium for general church service on Sunday and social entertainment during the week, and from a common market stall where buyers learn to look for the superior products of specialized cultivation, and where a direct, private purchasing clientele is established without costly advertising.

Many of the Little Landers' returns are difficult to evaluate. Most people would rather live in a house which they have planned and help build and which is paid for, than in one worth twice as much with high rents or a heavy mortgage.

The difference between the climate of California and Ontario is not a serious consideration. Irrigation costs money. The rainy season is not pleasant. One may have even too much sunshine, and long for a good, old-fashioned Canadian winter with plenty of snow and rest to the soil as well as to the people.

Reverting to the question, "what can be raised on one acre?" The vegetarian or the man who has formed a habit of "low living and high thinking" manifestly possesses a distinct advantage. It is wonderful how small an area, properly tilled will suffice to produce enough potatoes, corn, lettuce, berries, etc., to supply a family, and for which they would pay several hundred dollars delivered at their door in the city.

A square rod devoted to honey bees will serve for at least ten hives, which, at a fair average, should net the owner one hundred dollars. The writer owns a hive of bees, which last autumn, were packed so that they wintered out of doors, with a temperature, at times, fifty below zero. This season (considered a poor season for honey) this hive has netted over twenty dollars.

The head of the Poultry Department at Booker Washington's Institute informed us that it has been established that it seldom pays to raise poultry in large quantities in the South, but that in a group of a dozen or so treated as a by-product the profits on the investment are enormous.

A high authority of Horticulture says that a square rod of strawberries, properly cared for, will produce a better crop than an acre badly managed.

The foregoing examples are sufficient to demonstrate the possibility of earning the equivalent of an income of eight hundred dollars from a single acre. With the selection of fancy varieties and with expert handling much greater returns are possible.

Chance is but another name for ignorance of the laws of nature, and while certain forces, for example, those of climate, are not controllable with our present knowledge, it is marvellous how much is known that can be learned and applied. For example, the control of frost conditions on small acres has been reduced to a science.

Valuable discoveries are often made as the result of individual initiative. If, for the finest squash that I have ever seen, both as to size and quality, was exhibited at an Ontario township fair. It transpired that in raising this squash the owner had a vessel of liquid fertilizer provided with a lampwork attachment by which a drop fell at regular intervals at the root. Every other aspirant for squash honors was promptly nipped in the bud, and all the energy concentrated on this one favored specimen. Investigation shows that the amount which some private individuals in Ontario raise from an acre is quite surprising, and a series of practical experiments of their experiences would be both interesting and valuable. The author who has several sons and finds that his farm is large enough for only one of them might with advantage consider this new phase of agricultural work.

The Little Landers' scheme also offers a satisfactory solution of the food problem which, at the present time, faces a large number of wealthy cities.



Don't Slaughter Those Calves

RAISE THEM ON

GARDINER'S CALF MEAL

WITH YOUR SEPARATED MILK

Sell your cream and use our CALF MEAL. It will cost you less than two cents per calf per day, which is good economy.

Our Calf Meal gives satisfaction. Ask those who use it.

Give preference to goods "MADE IN CANADA."

For sale by all wide-awake dealers. If yours does not handle it, write direct to us for prices.

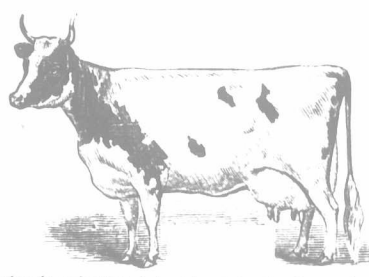
No order too small. We pay the freight. Manufactured by

GARDINER BROS. Sarnia, Ontario

MADE IN CANADA

Purest Canadian Veterinary Drugs

Canadian Manufacture, All Canadian Employees



We are not a branch, nor representative of a foreign company, but we are the only CANADIAN Manufacturer of Stock Food and Veterinary Drugs, registered with the Federal Government in Ottawa.

Use Veterinary Preparations that are strictly "Made in Canada."

LACTOLINE

MILK and MEAT specific producer. By 5 pound box.

Prepared and compounded with such pure ingredients, that it will increase production of MILK from 10 to 25% without having milk glands exhausted, but kept in the best of shape from one calving to another.

One thousand 5-lb. boxes ready to ship, prepared by mail to any part in Ontario or Quebec on receipt of 60c. in stamps, per box.

Give it a trial. Write for literature.

The NATIONAL STOCK FOOD CO., Limited OTTAWA, ONTARIO

Brampton Jerseys

We are busy. Sales were never more abundant. Our cows on yearly test never did better. We have some bulls for sale from Record of Performance cows. These bulls are fit for any show ring.

B. H. Bull & Son Brampton, Ontario

LAKEVIEW HOLSTEINS

Senior herd bull—Count Hengerveld Fays-D-Kol, a son of Pietertje Hengerveld's Count D-Kol and Grace Fays' 2nd. Junior herd bull—Dutchland Colantha, Sir Mona, a son of Colantha J. Fays and I. M. van Pauline D-Kol. Third bull—King Canary Segis whose sire is son of King Segis Pontiac, and whose dam is 27-lb., three-year-old daughter of a 31-lb. cow. Write for further information to—

E. F. OSLER, BRONTE, ONT.

SUMMER HILL FARM

Holstein Cattle and Yorkshire Hogs

We offer for sale a dozen bulls, some ready for service, from high official record dams. If you are wanting a bull, better write us and let us tell you how good they are. Can also spare a few good hesters. Yorkshire hogs all ages.

D. C. FLATT & SON

HAMILTON Phone 7165 R.R. No. 2 ONTARIO

Riverside Holsteins

Head herd by KING JOHANNA PONTIAC KORNDYKE, a grandson of PONTIAC KORNDYKE, and a brother of PONTIAC LADY KORNDYKE, 28.02 lbs. better in 7 days, 153.92 lbs. in 30 days. World's records when made.

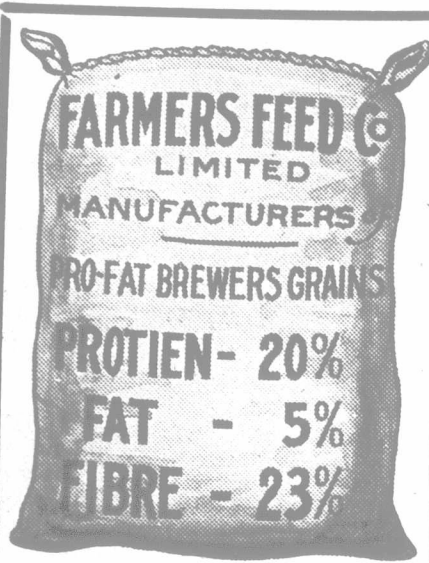
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OURVILLE STOCK FARM

Offers: 1 bull, 2 cows ready for service, sired by Royalton Korndyke Duke, whose dam gave 17 1/2 lbs. butter in 7 days. All at 10c. per lb. shipped.

LAIDLAW BROS. R.R. No. 1 AYLMER, ONT. Head bull—Pietertje's 2nd year-old grandson of King's dam, sired by Royalton Korndyke Duke, whose dam gave 17 1/2 lbs. butter in 7 days. Write for literature. Wm. A. Rife, Hespeler, Ont.

Please send this advertisement to "The Farmer's Advocate"



As a feed for dairy cows it is achieving popularity, as many of the largest dairymen and most successful farmers are steady purchasers of it for this purpose.

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H. F. BAILEY & SON,
(Sole manufacturers for Canada),
Galt, Ont., Can.

Great Yearling Holstein Bull For Sale
out of the cow Victoria Burke with the wonderful record of 106 lbs. milk in 1 day, 686.6 lbs. in 7 days, 2,538.2 lbs. in 30 days and 30,82 lbs. of butter in 7 days, 122.08 lbs. of butter in 30 days. This cow ranked fourth in 1914 Royalton 30 day class. The bull is sired by Fairview Korndyke Pontiac with ten sisters all with records over 30 lbs. butter in 30 days. Come and see or write:

JAMES A. CASKEY, - MADOC, ONT.

Holstein-Friesian Association of Canada

Application for registry, transfer and membership, as well as requests for blank forms and all information regarding the farmer's most profitable cow, should be sent to the Secretary of the Association.

W. A. CLEMONS, St. George, Ontario

Maple Grove Holsteins

Do you know that Taly, Abakirk is the only cow in the world that produced three sons who have each sired 3000 better cows than her own? She was bred, reared and developed at Maple Grove. Do you want that blood to strengthen the milking power of your herd, at low and let the prices then write:—**H. BOLLERT,** TAVISTOCK, ONT. R.R. NO. 1

BUY THE BEST 4 Holstein Bulls

For service and several calves. Females all with records in R.O.P. and R.O.M. milking up to 100 lbs. in 1 day. King Segs Pontiac, Fairview Korndyke Pontiac, King Segs Pontiac, Fairview Korndyke Pontiac, King Segs Pontiac, Fairview Korndyke Pontiac. R. M. 104 BY, R. R. 4, Port Perry, Ont. Manager of F. B. Martz, C.P.R.

Kate, or The Old Gray Mare.

When I first saw Kate she was beautiful, round, sleek and fat; when I last looked upon her she was in a pitiful state, peaked, rough, thin and very lame—a worn-out machine on the way to the scrap heap. Her growth to meet the inevitable decay had been rapid, for she was only with us twelve years. When my father led her home from the auction, where he had purchased her for \$100, she was a dark, iron gray, somewhat dappled; when she went away she was a sickly, speckly, dirty white. Well I remember how she came in the lane behind the buggy, by times showing an interest in her new surroundings, and again with lowered head. Kate was no doubt wondering and fretting—wondering what her new home would have in store for her, and fretting about her twin brother from whom she was separated for the first time since they were foaled. Horses were cheap then, but she was considered good value at \$100 less the cash discount of a country auction sale.

I was a small boy, when Kate came to Belleview Farm, and with the rest of the family turned out to see "the new horse." Well I remember the remark of my aged grandfather after he had made a careful inspection of the mare. It was his usual judgment on new purchases for my father's farm—"Huh! you paid too much for her!" However, all the rest were satisfied, even to the hired boy who was to work Kate beside Nigger for his team.

Kate was quiet and docile and always ready to do her part, provided she could be convinced by the use of whip that it was necessary that she do it. She was never afraid of anything, not even the whip, and yet lazy, as she undoubtedly was, she was tough, an easy feeder, and one of the best horses we had on the place.

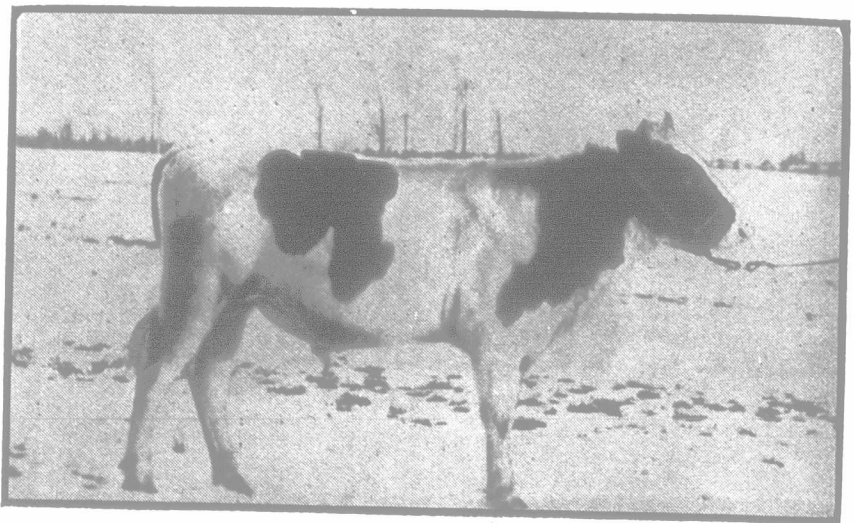
In those days light-legged driving horses were not so common as now, and Kate, being quiet and dependable, was made "the family driver" as well as a regular team horse. Besides, her docile disposition was taken advantage of in an endeavor to make her a saddle horse (always to be ridden bare-backed, for the only saddle father ever owned was already worn out) and many a time she galloped with the boy up, to the far corner of the lower fifty for the cows. It was while on one of these runs that I will remember that she threw me. Belleview farm was a great ranch for woodchucks, and Kate in her usual manner of stumbling into or over everything, stepped into a shallow hole when at a smart gallop, with the result that she went down in front and I went down head foremost several feet in advance. My neck and right shoulder received the impact and for a time I was unable to rise, but when I did regain my feet, there was Kate uninjured and quietly eating grass at my heels and waiting for me to remount, which, after a time, I succeeded in doing and with a sore shoulder and a sorer head (for it was a disgrace to be thrown from any horse, more particularly quiet Kate) I rounded up the cattle and returned slowly to the barn.

Shortly after Kate came to Belleview she began to show signs of stiffening, a malady which grew on her as she advanced in years, and finally she became badly foundered and until she was warmed by work would go very much crippled up. It turned out that her former owner had driven Kate and her twin brother, loaded, for twenty-five miles and had allowed them to drink all the ice-cold water they could when very much overheated, and Kate was forced to suffer practically all her remaining days, and the affliction finally finished her before her time. We all felt very sorry for Kate, but could do nothing but be kind to her. What a pity that such carelessness should have caused so much suffering. She worked well on the land, and after a few years "Nigger" (a heavy carrier) came to the farm, and Kate was relieved of the family driving work by each riding. This must have been a great relief to her, as it was an old story of mine where her brother hurt her.

Kate was four years old when she was sold. She was a grade C. or state,

Cloverlea Dairy Farm

Come and see our herd. Visitors will be made welcome at any time, and be met at the station if you phone us on your arrival. Bull calves for sale at present from high-producing dams



Pontiac Norine Korndyke, No. 18773, a promising young sire with all the best breeding and perfect to type, at the head of the herd. He is sired by Sir Korndyke Boon, a son of Pontiac Korndyke, sire of 91 A. R. O. daughters, 11 with records from 30 to 38.03 lbs., 29 over 25 lbs., 53 over 20 lbs., 14 thirty-pound granddaughters, including the world's record cow, King Pontiac Lass, 44.18 lbs. butter in 7 days. Sir Korndyke Boon's dam, Fairview Boon's, record of 32.17 lbs. at 4 years old.

Pontiac Norine Korndyke's dam was Norine Wayne Mercedes, a daughter of Count Calamity Mercedes, sire of the first Canadian-bred two-year-old to produce 20 lbs. in 7 days. Her dam, Lady Wayne Norine, 22 lbs. butter in 7 days, without doubt is the best transmitting cow in Canada through her sons, Brookbank Butter Baron and Count Calamity Wayne. She is granddam of more high-record cows than any cow in Canada, three with records averaging over 30 lbs., 14 with records from 22 to 33.18 lbs. butter in 7 days, and of the latter the former Canadian champion, Queen Butter Baroness, Pontiac Norine Korndyke's granddam, averaged 27.10 lbs. butter in 7 days and 4.48% fat.

The herd also consists of cows with equally high records, such as Excellence 3rd, Bessie Vansdale 2nd, Francie Korndyke Ormsby, Royalton Gypsy 3rd and others.

GRIESBACH BROS., Collingwood, Ontario
LONG-DISTANCE TELEPHONE

45 Holsteins by Auction 45

On Tuesday, December 22nd, 1914

At Royalton Stock Farm

(A short distance from Talbotville Station, on the Traction line between London and St. Thomas, where conveyances will meet all cars both from London and St. Thomas, between the hours of 10 and 1 p.m.)

Mr. E. C. Gilbert will sell by auction, 45 head of high-class Holstein cattle. Seven young bulls from nine to eleven months of age; the balance females, heifers and mature cows. Heavy milkers and high testers; very many of them over 4% B.F., richly bred on producing lines and high-class individuals.

Terms—Cash or six months on bankable paper with 6%.

For Catalogue, write E. C. Gilbert, R.R. No. 7, St. Thomas, Ontario.

MOORE & DEAN, SPRINGFIELD, ONTARIO, AUCTIONEERS.

Sale at 1 P.M.

THE MAPLES HOLSTEIN HERD



WALBURN RIVERS, - R.R. No. 5, - INGERSOLL, ONT.

Headed by Canary Hartog whose sire's dam made 34.60 lbs. butter in 7 days and two granddams average 117 lbs. milk in one day. Bull calves sired by him born after Nov. 1st; bulls ready for service from Prince Aaggie Mechthilde whose first daughters in R.O.P. test made one nearly 14,000 another over 15,000 lbs. milk as junior two-year olds. Dams of bulls are R.O.P. and R.O.M. sisters and dam of Duchess Wayne Calamity 2nd, 16,714 lbs. milk, 846 lbs. butter in 12 months at two years, 29.28 lbs butter in 7 days as junior four-year-old. Come and see them; visitors met by appointment.

PRIZE-WINNING HOLSTEINS

Another win! For the past four years we have won on get of sire, which speaks for the quality along with constitution. Choice young bulls for sale, including 1st young bull at Ottawa and 2nd at Toronto, also young females. **M. L. HALEY, M. H. HALEY, Springfield, Oxford Co., Ont.**

Holstein Cattle (Prince Hengerveld of the Pontiacs, herd sire) Stock for sale. Large herd to select from.
Hamilton Farms, St. Catharines, Ontario

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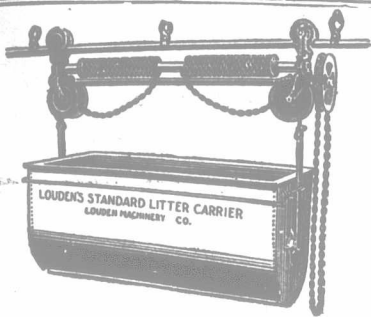
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LOUDEN Litter Carrier

—is simple in construction, and easily operated. Carrier box is made of heavy galvanized steel, strongly reinforced with angle iron. Worm hoisting gear insures maximum speed and power. Track is of high carbon steel and is easily installed.

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Send your Cattle and Horse Hides, Furs and other Skins to me, and have them tanned soft and pliable for Robes, Coats, Furs, etc.

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Alancroft Dairy & Stock Farm
BEACONSFIELD, P. O., CANADA

A FEW Pure-bred Ayrshires and Pure-bred French-Canadian Bulls for Sale.

Correspondence or visit solicited. **E. A. SHANAHAN, Secretary,** Merchants Bank Building, Montreal Canada

Dungannon Ayrshires

The average milk yield of our herd is 10,000 lbs. annually for all ages. High-class in breeding and individuality. Young bulls, cows and heifers for sale. **W. H. FURBER, COBOURG, ONT.**

Prize-Winning Ayrshires For Sale

Bred on particularly good lines. Will sell females of all ages, also bulls from calves up, sired by Barcheskie Scotch Earl (imp.). Prices reasonable. **W. G. Hensman, R.R. No. 4, Essex, Ont.**

Oxford Down Sheep

"The Champion Oxford Flock of America" Winners at Chicago International, Toronto, London, Winnipeg, Regina, Brandon, Saskatoon, Edmonton, Calgary and Lethbridge Fairs. Present offering—70 ram and ewe lambs, 46 yearling ewes (some fitted for show), also 15 yearling rams which will make excellent flock headers. Consult us before buying.

Peter Arkell & Sons, Teeswater, Ontario

ALLOWAY LODGE, STOCK FARM

Southdown Sheep

Look up this year's record at the shows. Breeding stock of all ages for sale.

ROBT. McEWEN, Near London
BYRON, ONTARIO

Sheep, Swine and Seed Corn

—Young stock of both sexes in Dorset Horn and Shropshire sheep, and in Swine: Poland Chinas, Duroc Jersey, Berkshires and Chester Whites. Also Seed Corn, all varieties. Consult me before buying. **SEGL STOBBS, LEAMINGTON, ONT.** Phone 284 M.C.R., P.M. and Electric Ry.

For Sale—Registered Oxford Downs. Will sell for next 30 days, choice ram and ewe lambs, at these prices. Write for prices. **W. A. BRYANT, Strathroy, Ont.** R. R. No. 3.

but undersized, chunky and very nicely turned. Horses were cheap. After a few years, however, the owner of a trotting stallion in the neighborhood prevailed upon father to mate Kate with his horse. This was done, and one morning the next spring, and almost a month before it was expected, we found a long-legged, ungainly, mouse-colored, wobbly filly foal gamboling around the stable behind the other horses, staggering up against them but never getting injured in the least, for older horses rarely hurt a colt. Not expecting a colt so soon Kate was still tied in her narrow stall with the other horses. Immediately, she, with her foal, was removed to the box stall at the other barn and the fun began. Heretofore invariably quiet, kind and docile, the arrival of the colt was expected to make her even more kind, but not so. She was a raving, wild beast, and had care not been taken she would have quickly killed her foal. Before she could be restrained she had bitten two or three pieces of skin as big as quarter dollars out of the youngster's hide, and from then on it was necessary to hold her every few hours while the colt nursed, and to keep them apart. This became a nuisance and hard things were said about Kate, until a neighbor happening along one day advised that she be turned in with the six calves in the two-acre calf pasture. We laughed at the idea and had little faith, but immediately Kate, with "Maude" trotting at her heels and teasing for a chance to nurse, was led to the calf paddock and the halter removed. Some thought she would kill the colt, but we took the chance. Away galloped the colt in play. The calves took up the spirit of the situation, and they too, with tails on end and heads low, began to raise a dust. Kate stood for a minute with head erect and nostrils distended, and suddenly, with one wild scream followed by a succession of little whinnies started in pursuit. It was an exciting and merry chase. Kate had found her mother's love. She was from that time on one of the best of mothers, and Maude grew up a lusty general-purpose youngster.

The same mating was made again the next year, and "Dick," another gray, lighter in limb and body than his sister Maude, resulted. These were raised and sold for \$87.50 and \$80 respectively—low prices, but all they were then worth, although both were nice colts.

Kate was not a mother again for some years. Horses began to improve in price, and she was finally mated with a chestnut Clydesdale, and "Charlie," a big chestnut colt was one morning found in the pasture field. Kate had a habit of surprising us with her colts, and only once out of six times did we fool her. As a result of another mating with the same horse, "Bobs" arrived. These colts grew into fine geldings, one sold when mature at \$200, and the other at two years, for \$120.

By this time Kate's founder was crippling her. She had another Clydesdale colt which grew to three years of age and which was valued at \$350, but which died suddenly of acute indigestion. Her last foal, a gray, the best of them all, was sold at auction for \$290. Kate did her share of the farm work and raised these colts, each of which was "broken in" early, and worked as soon as big enough. All told, there were sold from her \$777.50 worth of colts, and the one that died at three years of age would easily have brought the total up to \$1,100. She was surely a cheap mare.

During her last years Kate did not do much work. Her legs grew stiffer and stiffer. She was only sixteen years old, but she was practically useless. She was thin, although well fed and cared for. What was to be done with her? None of us who had worked with her, fed and cared for her, had the heart to destroy her, even by the most humane method. Accordingly she was turned over to a man from whom my father exacted a promise that he would immediately destroy her without pain and give her a decent burial. Poor Kate! Never shall I forget her hobbling slowly out of her stable for the last time. Once out she raised her head as if to take a last look at her old home, sniffed playfully at the fresh, crisp fall air and

Clearing Auction Sale

OF BRIGHTON BRAE

Utility Ayrshires

On the farm at KERWOOD, ONT., on

Wednesday, Dec. 16th, 1914

At 1 p.m. sharp

Comprising 32 head, 22 cows, of which 18 have just freshened, and 10 yearling heifers. Photo engravings appeared in last issue, showing a few members of this strong herd.

Our standard has been 10,000 lbs. milk 4% fat per cow. For years we have culled and bred to this end until at the present time this entire herd of 22 cows (although a young herd) with any reasonable feed and care will average at least 10,000 lbs. They have just recently been tested with 15 new milch cows and tested 4 per cent.; some have done better, giving as high as 12,000 lbs., three-year-olds 10,000 lbs. and heifers with their first calves at present milking 40 and 42 lbs. per day. Every one of this entire herd will be sold to the highest bidder.

CATALOGUE ON APPLICATION

Walter W. Bowley, Kerwood, Ont.

R. R. No. 1

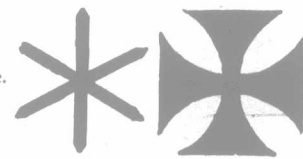
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Glenhurst Ayrshires

ESTABLISHED OVER 50 YEARS AGO and ever since kept up to a high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding; 45 head to select from. Let me know your wants.

James Benning Summerton Stn., Glengarry. **Williamstown, Ont.**

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In official record, high-testing Ayrshires, that have won scores of prizes, I can surely supply your wants, over 50 to select from. Young bulls of super-breeding on record producing lines, also the 3-year-old stock bull, Imp. Whitehall Freetrader.

P. D. McARTHUR, North Georgetown, Quebec

Stonehouse Ayrshires

Hector Gordon, Howick, Quebec

Are a combination of show-yard and utility type seldom seen in any one herd. A few choice young males and females for sale. Write or phone your wants to Stonehouse before purchasing elsewhere.

Farnham Farm Oxford Downs

"The Oldest Established Flock in America"

We are making a Special Offer for 30 days of 50 fine registered yearling ewes, bred to our imported ram to lamb in April. Also 50 ram lambs amongst them, a lot of big, strong fellows for flock-headers. Also a few nice ewe lambs, and a few good Hampshire ram lambs. **C.P.R. Guelph and Arkell. Phone: Guelph, 240 ring 2. G.T.R., Guelph St. and Telegraph. Henry Arkell & Son, Route 2, Guelph, Ontario**

Maple Villa Oxford Down Sheep

Yorkshire Hogs

Sired by Adonis Imp. 57495, and out of ewes that have won many prizes at big and local shows. I have high-class flock-headers and high-class ewe lambs, also shearlings, of both sexes. **Yorkshires both sexes, any age.**

J. A. Cerswell, R. R. 1, Beeton, Ontario

Shropshires and Cotswolds

I have now for sale 30 extra large, well covered shearling rams, 100 shearling ewes and a very fine lot of lambs from my imported ewes. Will be pleased to book orders for delivery later of any kind wanted. **JOHN MILLER, R.R. No. 2, CLAREMONT, ONT.** Claremont Station, C.P.R., 3 miles Pickering Station, G.T.R., 7 miles. Greenburn Station, C.N.R., 4 miles

SPRING VALLEY SHROPSHIRE

For this season's trade I have some extra choice flock-headers, shearling and ram lambs; a combination of Milne and Cooper breeding; also shearling ewes and ewe lambs, low and thick in type and covered to the ground. **THOS. HALL, R.R. No. 2, Bradford**



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MEAL**
FINE GROUND
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Linseed Cake		
(ground).....	32.9	7.9
Buckwheat.....	10.0	2.2
Corn.....	10.3	5.0
Oats.....	11.8	5.0
Wheat.....	11.9	2.1
Barley.....	12.4	1.8
Shorts.....	14.9	4.5
Bran.....	15.4	4.0
Middlings.....	15.6	4.0
Pea Meal.....	21.2	1.4
Bean Meal.....	23.1	2.2

Protein is the most costly, necessary and valuable element in food.

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**Cloverdale
Large English Berkshires**

Sows bred, others ready to breed; boars ready for service; 200 from six to twelve weeks old, both sexes, pairs not akin. All breeding stock imp. or from imp. stock. Prices reasonable.

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MAPLE LEAF BERKSHIRES
for sale at reasonable prices, boars fit for service, also young pigs ready to wean; boars and sows 3 and 4 months old, bred from imported stock. Satisfaction guaranteed. J. LAWRENCE Woodstock, Ontario. R. R. No. 8.

Morrison Tamworths and Shorthorns
Bred from the prize-winning herds of England. A choice lot of young boars fit for service and also young sows bred, and also a choice lot of young bulls and heifers sired by Proud Loyalist (Imp.) from choice cows. Chas. Currie, Morrison, Ont.

Sunnyside Chester White Swine
Stock Farm
Champion herd at Toronto and London Fairs; also Dorset Horn Sheep Young stock of both sexes for sale; a few two-year-old rams.
W. E. Wright & Son - Glanworth, Ontario

BERKSHIRES FOR SALE
Registered boars and sows weaned, straight and thrifty, from prize-winning stock on sale at Toronto, London and Guelph winter shows. P.H. \$10 each. Ira Nichols, Box 988, Woodstock, Ont.

ELMFIELD YORKSHIRES
My specialty for sale are now a year bred sows and others of breeding age. C. sows and G. dam all imported, the sire was a winner. Write for particulars.
G. B. Munn, Ave. 10, and St. Clair, Ont. R.R. No. 2

TAMWORTHS
Specialty for sale are now a year bred sows and others of breeding age. C. sows and G. dam all imported, the sire was a winner. Write for particulars.
HERBERT GERMAN, ST. GEORGE, ONT.

TAMWORTHS
My specialty for sale are now a year bred sows and others of breeding age. C. sows and G. dam all imported, the sire was a winner. Write for particulars.
John W. Todd, R.R. No. 1, Cornish, Ontario

Hampshire Swine
and Lincoln Sheep
Both sexes and all ages, bred from imported stock. Prices reasonable.
G. A. POWELL,
R. R. No. 1, INGERSOLL, ONTARIO

Poland China and Chester White Swine
and Shorthorn and Jersey Cattle and the fine stock of a number of other breeds. Prices moderate. Geo. C. Gaud, R.R. 1 Essex, Ont.

whinnied pitifully, and dropped her nose dejected. Father had already gone to the lower barn so as not to be present when she left. Mother was in the house not caring to give vent to her feelings in public, but I saw her lift a corner of the curtain and look with moist eyes at her old driver of which she thought so much. I alone faced the music. I was greatly attached to Kate. I had learned to plow with Kate and Nigger as my team. I had harrowed, cultivated, sowed, reaped and mowed with these two the never-failing power. I had ridden and driven her and played with her colts. Nigger being older had gone before, and now Kate was on her way to the woods, the graveyard of many faithful animals. I patted her neck; she rubbed her nose on my cheek, and with that I turned away and never looked at her again. I went into the stable sorrowful, and yet glad for Kate's sake that her pain was nearly over, and her end would be sudden and not the lasting torture of eking out an existence so common where old horses are sold to be abused by the men who buy no other class, and use them only to beat money out of their worn-out frames. I looked in the stall and felt lonely, for it was empty. "Fan," her last gray colt was in the stable. She was built like her mother, only she was much larger. I immediately moved her to Kate's stall, and she filled her mother's place as a good daughter ought to do. But never shall I forget Kate. She was more to me than any other horse I have ever known.

Gossip.

SHORTHORNS AT CEDARVALE.

The noted herd of Scotch and Scotch-topped Shorthorns at the Cedarvale herd of Hon. Dr. T. S. Sproule, of Markdale, Ont., are going into winter quarters in their usually thrifty condition. The splendid fleshing qualities of a part of this herd, and the extra dual-purpose qualities of the others have been reviewed in these columns on many previous occasions and need not be again repeated, suffice it to say, the herd is still being kept up to its usual high standard of efficiency and merit. The present stock bull, Spicy Victor 89911, a roan Rosebud-bred son of Imp. British Victor, is proving one of the best sires ever at the head of the herd, his get showing a splendid balance of flesh, and extra heavy coats. The young bulls on hand for this season's trade got by him are the kind that does good on any herd. There is also for sale a number of heifers and mature cows. Write the Doctor your wants.

KYLE BROS.' SHORTHORNS.

There is no occasion to again elaborate on the high-class character, quality and breeding of the large Scotch-bred herd of Shorthorns owned by Kyle Bros., of Ayr, Ont., representatives of the herd have been in competition at Toronto for many years, and for several years at Ottawa. Many first prizes, and very many other prizes of lesser honor, besides championships and grand championships have been won by them. All this is well known by breeders who keep in touch with the country's Shorthorn history. The two stock bulls in service at the present time are among the great sires of this country. Their get are winning over all corners at the big shows, and winning on their merits. Newton Ringleader (Imp.), a Bucksbank Fragrant, sired the Toronto senior champion cow of this year, and Ottawa champion bull, and many other winners. Compared Ramsden, a Miss Ramsden, by Imp. Nonpareil Archer, and out of an imported Miss Ramsden dam, was himself Durd in the aged-bull class at Toronto, and first at Ottawa. His daughters, senior heifer calves, were first at both Toronto and Ottawa. For this season's trade are twelve young heifer calves of the great sires, and out of imported, tested dams. One of these is a brother of the Ottawa champion bull, and his dam is a sister to the Toronto senior champion cow. These are the best of the young bulls ever bred in this country. Every one of them is a head winner. Also for sale are twenty-five to thirty-year-old two-year-olds.

Your Profits Will Increase

Yes, sir!
You will make more money if you feed your hogs on

**Harab
Digestive Tankage**

They will be ready for market sooner, thus saving time and feed, and they will be in better condition—thus fetching a better price. These, then, are the benefits that you enjoy from the use of Harab Digestive Tankage.

Write for our Tankage booklet, giving prices and feeding tables.

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WEST TORONTO, CANADA

Makers of The Harab Line of Stock, Hog, Horse and Poultry Foods.

Merry Christmas and Happy New Year!



Eldon Duke Champion at Toronto and Ottawa, 1913 and 1914.

YOUR
greatest opportunity
to secure the
BEST

Our offering includes this year's prize winners of both sexes bred from the above hog, all ages. Pairs not akin. Stock guaranteed as represented.

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WOODVILLE, ONTARIO

**HIGH-CLASS, PURE-BRED
YORKSHIRES**

Boars and sows, from 5½ to 7 months of age. Two sows recently bred. Prices low for quick sale.

WELDWOOD FARM
Farmer's Advocate
London, Ontario

Newcastle Tamworths, Shorthorns and Clydesdales—For sale at once: Two choice sows bred and ready to breed; one extra choice year-old sow bred; four ready for service; sows sides; 3 choice young bulls 10 to 12 months old; several heifers bred to my present stock bull, Broadlands; all from splendid milking dams. One registered 3-year-old filly; 1 5-year-old and a 12-year-old brood mare; all of splendid quality; prices right. A. A. Colwill, Newcastle, Ont. L.D. Phone.

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In Duroc Jerseys we have either sex of any desired age, bred from winners and champions for generations back. In Jerseys we have young cows in calf, and young bulls, high in quality and high in producing blood.
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This herd has won over 99% of all prizes offered for the breed at leading Ontario Fairs. Write for particulars and prices.
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Do not save in Facts and of work design Underw...
The our new Change EXCLU with a cranking We mounted pump-jaw we will We are purchase locality. GILS 2209

N
By
We have great variety the lovely s thrushes, of the ruby-cro wren, the warblers, t catchers, th grouse, and woodpeckers haps the grouse. It quial "Boo boom," and frequent int most peculiar sits up in height from



Fig.
begins about tines until t making this sides of its t Just as the is termed a the male so "hooter" in The ventric remarkable th can rarely sa that is utteri ish beneath, the tree in w impression th further off, of the sound The sooty is the coast of about twenty male is black and grayish r color below, the back regul sexes have a A little wat mon along the is the pigeon about thirtie with a white feet are bright from its reser

SAFETY—SERVICE—SATISFACTION

FOR EVERY POWER USER IF HE GETS A

GILSON
"GOES-LIKE-SIXTY"
ENGINE

MORE VALUE, MORE POWER, MORE SERVICE, MORE SATISFACTION.

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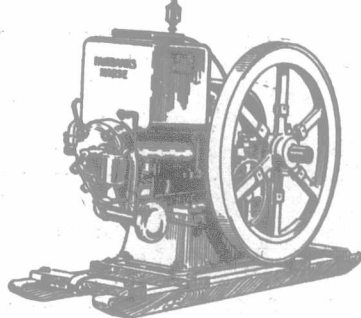
We also make 60-SPEED engines in 1½ and 3 H.P. size. These are mounted on truck, with line shaft and five interchangeable pulleys, and pump-jack. Drop us a card to-day, and we will send you full descriptive literature. We are making special prices to the first purchasers of one of these engines in every locality. Write NOW. Agents Wanted.

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Many types and powers. Vertical and horizontal—portable and stationary—1 to 200 h.p. Send for free booklet, "Farm Power."

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Canada's Departmental House for Mechanical Goods

Nature's Diary.

By A. B. Klugh, M.A.

We have among our Canadian birds a great variety of love-notes. We have the lovely songs of the hermit and wood thrushes, of the white-throated sparrow, the ruby-crowned kinglet, and the winter wren, the quaint little ditties of the warblers, the sharp notes of the flycatchers, the drumming of the ruffed grouse, and the rolling tattoo of the woodpeckers. But of all love-calls perhaps the queerest is that of the sooty grouse. It is a loud, booming, ventriloquial "Boomp-boomp-boomp-boomp-boomp," and is repeated all day long at frequent intervals. When uttering this most peculiar note, the male usually sits up in a coniferous tree at a fair height from the ground. The calling



Fig. 1.—Oregon Grape.

begins about the first of April, and continues until the beginning of July. While making this sound the bird inflates the sides of its throat.

Just as the male of the ruffed grouse is termed a "drummer" in the East, so the male sooty grouse is called a "hooter" in British Columbia.

The ventriloquial quality is the most remarkable thing about this call. You can rarely say how far away is the bird that is uttering it. You may pass under the tree in which it is sitting, under the impression that the sound comes from further off, only to find that the source of the sound still eludes you.

The sooty grouse is very common along the coast of British Columbia. It is about twenty inches in length. The male is blackish above with fine rusty and grayish markings, and grayish-slate color below. The female is more whitish beneath, and has the fore part of the back regularly barred with buff. Both sexes have a white tip to the tail.

A little water-bird which is very common along the coast of British Columbia is the pigeon guillemot. This species is about thirteen inches in length, black, with a white patch on the wings. The feet are bright red. Its name is derived from its resemblance to a pigeon when

MAKE A TEST

And prove to your own satisfaction that

Wodehouse's Animal Invigorator

is the best stock conditioner on the market to-day. You can't lose, as our guarantee is absolute.

You will save its cost several times over in feed saved, and your stock will be in better condition.

Make a start now and be a WODEHOUSE ENTHUSIAST. There is money in it for you.

Wodehouse's Famous Preparations:

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Wodehouse's Poultry Invigorator—The chicken fanciers' best friend.

Wodehouse's Creameal—The perfect food for calves and pigs.

Wodehouse's Baby Chick Food—The best of all Baby Chick Feed.

Wodehouse's Lice Killer—Sure death to all vermin.

MANUFACTURED BY

Wodehouse Invigorator Limited, Hamilton, Ont.

If your dealer does not handle, write, and we will see that you are supplied

in flight. It nests in holes in the rocks along the coast.

In the coniferous forests of British Columbia there is a very attractive evergreen plant known as the Oregon grape. It is not really a grape at all, but belongs to the barberry family. The berries, which may be seen in the center of the crown in the photograph, are borne in a spike, and are bluish, with a white bloom. They are extremely acid, but are used for making wine, and for mixing with other berries in the making of jelly. The scientific name of this



Fig 2.—Berberis aquifolium.

species is Berberis nervosa, and there is another species, Berberis aquifolium, which is also called Oregon grape, that is fairly common in the same region. This latter species differs from the former in having a longer, more woody stem, shorter leaves, and in having the leaflets shorter, broader, and more spiny on the margins. The leaves of Berberis aquifolium resemble those of the English holly very much, as may be seen from Fig. 2.

The big Ayrshire sale of Walter W. Bowley, of Kerwood, will be held Dec. 16, at his farm, 3½ miles west of Strathroy, where trains will be met morning of sale. Trains arrive from east at 8.18, 11.44 and 11.58 a.m., and from the west at 8.09 and 11.24 a.m. Terms, under \$25 cash; over that amount, six months' credit on approved notes, with 6 per cent. per annum discount for cash. Auctioneers, Moore & Dean. See the advertisement.

Holstein breeders should see the new advertisement in this issue of a wonderfully-bred Holstein bull, the property of James A. Caskey, Madoc, Ont.

THE CANADIAN LAWYER

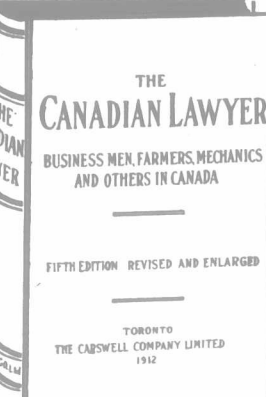
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HOW THE FARMER CAN KEEP OUT OF LAW SUITS

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The book contains 453 pages, price \$2.00 in good cloth binding, and will be sent, postage paid, when cash accompanies the order. Send your order direct to the publisher.

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This is the feed that's guaranteed to bring

More eggs or money back

Sold only in checkerboard bags, Made in Canada The Chisholm Milling Co. Limited Toronto

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Become Independent! Our Graduates get and hold good positions owing to their superior training. The

ELLIOTT Business College

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is doing the highest grade of work in Business and Shorthand Education. This Institution differs in many respects from the ordinary business colleges. Write for large catalogue No. 20.

W. J. Elliott, Principal

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Canada's best practical training school—with Commercial, Shorthand and Telegraphy departments. Students enter each week. Write for our catalogue.

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Strawberries, 50 varieties; Raspberries, 14 varieties. Free Catalog.

THE LAKEVIEW FRUIT FARM

H. L. McConnell & Son, Port Burwell, Ont.

Please mention "The Farmer's Advocate."

Questions and Answers. Veterinary.

Salivation.

Horse is bad with gastritis. His bowels move too often, but are normal in consistence. He has a good appetite, but froths badly from his mouth.

Ans.—He is not suffering from gastritis. His teeth require dressing. Get your veterinarian to examine his mouth and dress his teeth. It may be that some of the teeth will have to be shorn. V.

Fatality in Cats.

Cat took sick suddenly, could neither eat nor drink, could not swallow, fluid ran freely from mouth, and nose turned black. This cat recovered, but other two took the disease and died. What was the trouble, and is there any danger of contagion?

Ans.—The symptoms indicate acute throat trouble, probably of the nature of diphtheria. The disease was evidently contagious, and there might be danger of the contagion even to the human being. An examination by a bacteriologist would be necessary in order to ascertain the nature of the contagion. V.

Elephantitis and Sallanders.

I bought a seven-year-old pregnant mare about three weeks ago. Her hind legs are enlarged, and I have found out that she has suffered from attacks of lymphangitis. The legs are cracked on the back part from the hocks to the hoofs, and are breaking out in front of the hocks.

Ans.—Unless you got her for a very small price you have made a bad buy, as enlarged legs occurring as a result of attacks of lymphangitis are practically incurable. It is called elephantitis. Dress the cracks in front of the hocks and on the back of the legs three times daily with oxide-of-zinc ointment. If proud flesh appears, dress once daily for two or three days with butter of antimony applied with a feather. Feed on easily-digested food, and give regular exercise or light work. V.

Leucorrhoea.

Cow had twins about a year ago, and in about six weeks she commenced discharging white matter, and she failed in flesh and milk supply. I gave her a preparation of ammonia without results, and then gave carbolic acid daily for two months, and she seemed to get all right. One day I thought she showed œstrum and I bred her. I am pretty safe in saying that she is in calf, but she is again discharging.

Ans.—This is called whites, or leucorrhœa, and a cow affected rarely conceives, but it is possible yours has. If in calf, all that you can do is give her 40 to 50 drops carbolic acid in a pint of water three times daily, either as a drench, or sprinkled on her food. After she calves, or so soon as you decide she is not pregnant, continue the carbolic and flush the womb out every day with a warm one-per-cent. solution of Creolin. Inject about a gallon each time. V.

FAST MONTREAL-TORONTO-DETROIT-CHICAGO TRAIN SERVICE.

These solid de luxe trains, carrying buffet-library-compartiment-observation cars, electric-lighted standard sleepers, together with standard dining-car service between Montreal-Toronto-Detroit-Chicago, via Canadian Pacific and Michigan Central railroads, are known as "The Canadian," and operated daily through the Michigan Central twin tubes between Windsor and Detroit.

Westbound: Leaving Montreal 8.45 a.m., arriving Toronto 5.40 p.m.; leaving Toronto 6.10 p.m., leaving London 9.33 p.m., arriving Windsor 12.10 a.m., arriving Detroit 11.35 p.m. (central time); leaving Detroit 11.55 p.m., arriving Chicago 7.45 a.m.

Eastbound: Leaving Chicago 6.10 p.m. (central time); arriving Detroit (M.C.R. Depot) 12.35 a.m.; leaving Detroit (M.C.R. Depot) 12.48 a.m.; leaving Detroit (Fort Street) 11.40 p.m., leaving Windsor (P.R.) 1.20 a.m. (Eastern time); leaving Windsor (M.C.R. Depot) 2.10 a.m.; leaving London 5.15 a.m.; arriving Toronto 8.30 a.m.; leaving Toronto 9.00 a.m.; arriving Montreal 6.10 a.m.

For particulars from Canadian Pacific Hotel and Touring Office, Montreal, or Detroit Passenger Agent, Toronto.

Get the Eggs NOW While Prices are High

GILBERT HESS, Doctor of Veterinary Science, Doctor of Medicine



This is the time of the year when the price of eggs is high and your hens ought to be making up for the small egg crop during moulting.

But hens need a tonic during the winter months, because the lack of exercise and green stuff, and also close confinement, impairs the digestion, makes the system sluggish and the egg organs dormant. With the knowledge I have gained in a lifetime experience as a veterinarian, doctor of medicine and successful poultry raiser, I have succeeded in compounding a scientific preparation that will make poultry healthy, make hens lay and keep the egg organs vigorous and active.

Dr. Hess Poultry PAN-A-CE-A

contains ingredients for toning up the digestive system and enriching the blood. It also contains tonics for toning up the dormant egg organs and making hens lay, internal antiseptics for preventing and remedying gapes and other ailments, also bone and shell forming ingredients. Every single ingredient in my Pan-a-ce-a (printed on every package) bears the recommendation of the U. S. Dispensatory and other high authorities. Now read this carefully:

So sure am I that Dr. Hess Poultry Pan-a-ce-a will make your poultry healthy and make your hens lay that I have authorized my dealer in your town to supply you with enough for your flock, and if it does not do as I claim, return the empty packages and get your money back. Buy now on that guarantee.

Sold only by reputable dealers whom you know, never by peddlers. 1½ lbs. 35c; 5 lbs. 85c; 25-lb. pail \$3.50 (duty paid). Pan-a-ce-a costs only 1c per day for 30 fowl.

My new poultry book tells all about Pan-a-ce-a. It's free.

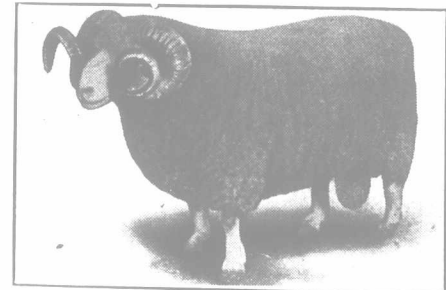
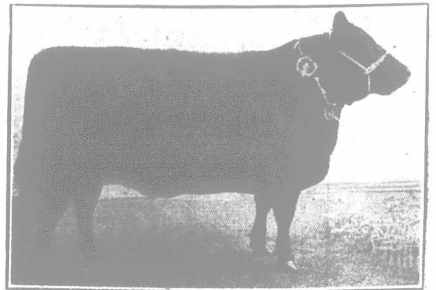
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The Beef Breed of Superior Quality. This has been demonstrated at the great British, Canadian and American Shows. They are winning from all beef breeds. The bulls excel for crossing and producing early maturing beefers. There's money in them.

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FORSTER FARM, OAKVILLE, ONT.



Dorset Horn Sheep

The Sheep that Produce the Profitable Easter Lambs. More money in them than any other branch of sheep raising. Many ewes breed twice a year. Secure a young ram to put with your flock.

YOUNG RAMS AND A FEW EWES FOR SALE.

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New Year Term opens January 4. Our past record is evidence that this School delivers the goods.

We give individual attention that is not surpassed by any other Business College.

Windsor being directly opposite Detroit makes it much easier for our Students to obtain positions. Catalogues on request.

A Happy New Year to all Farmer's Advocate readers.

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Is a purely Canadian Company, managed by Canadians for Canadians. All its business is done and all its investments are made in Canada.

In view of these facts it should have the support

Of All Loyal Canadians.

Its history is one of careful management, upright dealing and progressive advancement.


The Security offered to Policyholders is unimpeachable.

Its Policies are entirely modern and there is one to satisfy every requirement.

The assets of the Company exceed \$2,200,000; the Insurances in force exceed \$10,000,000; the Reserve Fund to guarantee payment of Policies exceeds \$1,600,000 and the full Surplus, as additional security to Policyholders, exceeds \$500,000.

The Company commenced business in 1897.

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Delivered at any Railway Station in Ontario, complete with rack.

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Government Certificate accompanies each scale.

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Model 1897

Shoots all .22 short, .22 long and .22 long-rifle cartridges; excellent for rabbits, squirrels, hawks, crows, foxes and all small game and target work up to 200 yards.

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It's a take-down, convenient to carry and clean. The tool steel working parts cannot wear out. Its Ivory Bead and Rocky Mountain sights are the best set ever furnished on any .22. Has lever action—like a big game rifle; has solid top and side ejection for safety and rapid accurate firing. Beautiful case-hardened finish and superb build and balance. Price, round barrel, \$14.50; octagon, \$16.00. Model 1892, similar, but not take-down, prices, \$12.15 up.

Learn more about all Marlin repeaters. Send 3 stamps postage for the 128-page Marlin catalog.

The Marlin Firearms Co.,
113 Willow St., New Haven, Conn.

Questions and Answers. Miscellaneous.

Valuing Sheep.

Is there any more value allowed by law on a pure-bred registered sheep killed by dog than on a grade sheep? We pay a dog tax. Some members of the council say that there is no difference. My sheep do not run at large, and I could buy four or five grade sheep for the price of one registered. R. M.

Ans.—In most municipalities the valuing is done by neighbors of the owner of the destroyed or injured sheep, these neighbors being, of course, competent to judge. The valuation on pure-breds of good quality is almost invariably higher than on grades, however, it is not often high enough to pay the loser for his loss in the same proportion as a man who loses grade sheep is paid.

Selling An Animal With Lump Jaw.

A bought an animal from B at an auction sale which had lump jaw. A asked a veterinarian if it could be cut out and what it would cost, and told the veterinarian not to come until he could see if B would pay cost, or A would return animal. The Veterinarian came before he was notified to come and operated when A was away from home and before he had seen B. A then went to see B, who said before a witness that he would pay the operation, but since says he will not as he could sell an animal with lump jaw.

1. Is it against the law to sell animals with lump jaw?

2. What should A do, refuse to pay the veterinarian who did not wait for further notice?

3. What course should A pursue? The veterinarian is demanding his money from A?

Ans.—1, 2 and 3. We see no reason to prevent the selling of a lumpy-jawed animal at an auction sale. This is different from slaughter. We do not see, under the circumstances if as stated, that the veterinarian can collect from A. There must have been some misunderstanding surely, or the veterinarian would not have gone ahead and operated. If B promised before a wit-

Potatoes Will Be Scarce

Next year, and even before next year, potatoes are going to be very scarce, and they are going to command high prices.

The bulk of the potatoes of the world have been produced by Germany, Austria, France and Russia. Germany and Austria are absolutely cut off from exporting, and French and Russian production will be very small as a result of the war.

The world will have to turn to Canada and the United States for its potatoes.

Here then is the Canadian farmers' opportunity. Grow potatoes—plenty of them! The market is ready, prices will be good! Take advantage of it!

There is only one way to grow potatoes right—to make the biggest profits from them. To get a big crop and to take care of a big crop you have to use up-to-date machinery.

How long would Napoleon's army last before those which are in the field to-day?

Modern ideas, modern machinery are what spell successful farming, as well as successful warfare, to-day.

How to make the most profit from potatoes is told by our catalogue of Potato Machinery. Write for it to-day—absolutely free.

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Canadian Potato Machinery Co. Limited
Dept. S, Galt, Ontario

ONCE USED ALWAYS USED

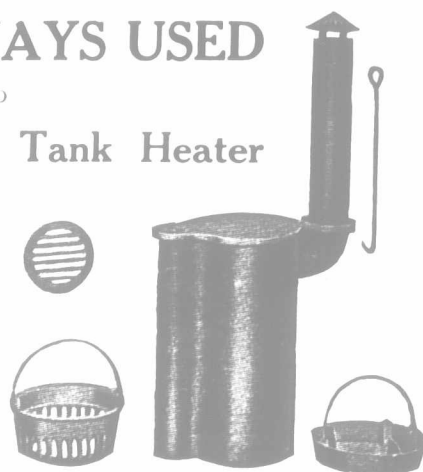
THE CELEBRATED

Heller-Aller Down-draft Tank Heater

The only thing on earth to supply warm water for your stock in cold weather. Every farmer should have one—and now is the time to buy, before the cold weather comes. They will consume anything in the shape of fuel—and will never wear out. The price is reasonable and within your reach.

Write to-day to

The Heller-Aller Co.
WINDSOR ONTARIO



ness to pay the operation it is more than likely that a judge would hold him to it.

Squirrels.

1. Is there an open season for hunting and trapping black squirrels this year? If so when is it?

2. What is a good black squirrel hide worth?

3. How should the black squirrel be skinned?

"A BRUCE SUBSCRIBER."

Ans.—1. There is an open season for black and grey squirrels from the 15th November to December 1st each year.

2. Write some of the fur firms advertising in these columns.

3. We never skinned one, but presume the usual method of slitting down the belly from end to end and up the inside of the four legs would answer.

Son and Wages.

A is owner of 150-acre farm free from incumbrance. B is A's only son, a saving young man who has taken the heavy end of the work. B has worked with A (his father) until all incumbrance has been paid. B's age is now 31 years. B would now like to start for himself.

1. What is B entitled to from A (his father), there being no other help hired?

2. Can B collect wages from A from the time he was 21 years of age until now?

3. If so, at what rate of wages? B got his clothes, board, and spending-money.

Ontario.
A READER.

Ans.—1. It is entirely a matter for adjustment between themselves. The amount is just what they may agree upon.

2 and 3. B is not in a position to enforce payment unless he can prove an express agreement for wages. This is on account of the relationship between the parties.

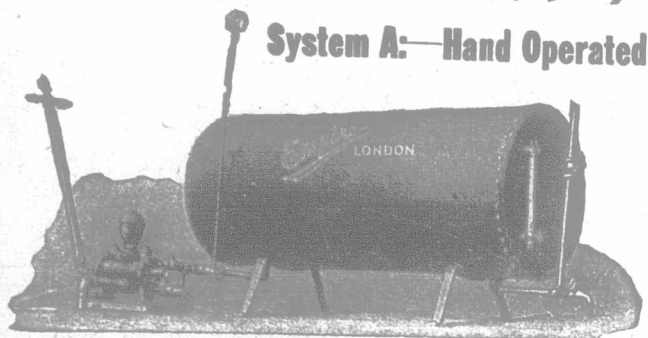
"What could be more sad than a man without a country?" feelingly asked the high-school literature teacher of her class.
"A country without a man," responded a pretty girl just as feelingly."

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You may have all the comfort, labor-saving convenience and safety of a complete water system at surprisingly little cost. We make **EMPIRE Water Supply Systems** to operate by hand, windmill, gasoline or electric power—many styles and sizes to suit all requirements.

Outfit shown below is the powerful, hand-operated

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System A:—Hand Operated

Our pumps will supply water and air at the same time, water only or air only. Very simple to run and nothing to get out of order. Gives strong pressure to every part of the house, and when connected up with kitchen range, enables you to have the comfort of ample running hot water on each floor. We can furnish you with an efficient, permanent water supply system at a very reasonable price.

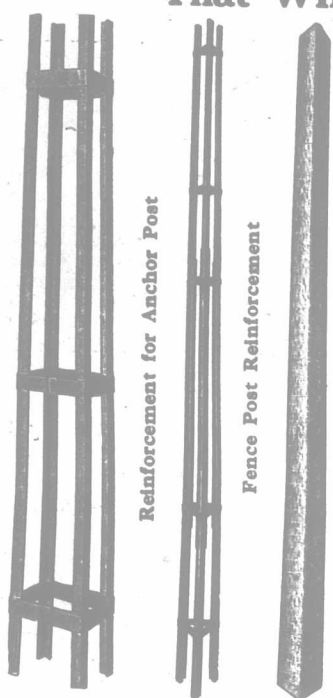


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EMPIRE MFG. CO., LIMITED
EAST LONDON, ONT.

An Indestructible Concrete Fence Post

That WILL NOT ROT—RUST—BURN or HEAVE



Guaranteed for 100 years. Easily made and strong. Cost you about the same as cedar posts.

Our **ANGLE STEEL REINFORCEMENT** gives a post "Backbone Solidity." Without it Concrete Posts are unreliable. With one of our moulds you can make two hundred (200) posts per day. Posts are turned out in ordinary hardware or butcher's paper, which permits you to use concrete sloppy (which sets much stronger) and can be turned out the moment it has been made; the paper retains the moisture. Your posts do not require to be wet down.

One yard of sharp sand or fine gravel and 1 1/2 barrels of cement will make 50 posts of standard length.

Write for our free, illustrated booklet telling you all about it. Do not buy another post until you have investigated this.

Ontario Concrete Post Co. Limited
BRANTFORD, ONTARIO



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Showing Mould

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We have again advanced our prices for good quality cream. We could use yours. It will be worth your while to write us.

Toronto Creamery Company, Limited
Toronto, Ontario

SWEET CREAM WANTED

Highest prices paid throughout the year. Write for particulars to

S. PRICE & SONS, LIMITED
Toronto, Ontario

CREAM WANTED

We are offering highest prices for cream to cheese factory patrons and others having a supply during the fall and winter. Express paid and cans supplied. Write us.

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Ravensdale Ayrshires

Bull calves sired by "Auchenbrain Sea Foam" (Imp.) 35758; 2nd at Ormstown; 1st and Grand Champion at Sherbrooke; 2nd at Ottawa, being beaten only by Ness' Champion "Masterpiece." Calves 12 months and under, sired by this great bull at reasonable prices.

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WATERLOO ONTARIO

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WE Supply cans and pay all express charges within a radius of 100 miles of Berlin. Send a statement of each shipment. Pay every two weeks. WRITE FOR FULL PARTICULARS.

THE BERLIN CREAMERY COMPANY
BERLIN, CANADA

Questions and Answers. Miscellaneous.

Road Fence.

1. What can A do if B's cattle come across the road into A's crops over A's fence, and B was warned twice before? Can A charge damages?

2. Does law force a farmer to put a fence along road? If not will a farmer have to stand the damage if people drive into the field when crop is almost ripe.

Ans.—1. Impound them and demand fair damages. D. B.

2. No. People are not allowed to trespass.

A Disagreement.

I hired with farmer last February for one year. There was no written agreement. Last June on a Sunday I was away visiting friends; when I came home farmer was angry and told me I had no business to go without permission. Monday morning he again began quarrelling about it. Finally he was going to fight me, and told me "to get out" as he put it. I left him at once. He refused to pay me. Can I get my wages from February to June or will I have to wait till next February to get same.

Ans.—If the farmer fired you without a reason you can collect at once. If you simply left without just cause you cannot collect until the year is up.

Line-fences.

A and B own adjoining farms. A has constructed his one-half of line-fence. B did not build his, and later sold his farm to a syndicate, who subdivided it and re-sold. A now has four parties on said line-fence to deal with. The parties who purchased where B did not have his line-fence desire a fence and insist that A should build one-half. If A does this he will then have built three-quarters of said line-fence. The party who purchased along where A has already built line-fence claims he purchased alongside of same, and cannot see why he should pay for one-half of said fence. Could the fence viewers compel A to build more than one-half of the line-fence? Would they value the fence built by A, and then compel the adjoining owners to pay their portion? What would you consider a fair adjustment of this case?

Ontario. TECUMSEH.
Ans.—The whole matter is one for decision by the fence viewers. It is their duty to see to it that A is not required to do more than his just proportion of the line fencing; but as to just what that may be, and other matters such as the description of fences, etc., we are not in a position to venture an opinion.

Sheep Killed by Dogs.

I had two sheep killed by dogs, but did not see dogs kill sheep. Set traps by dead sheep the night after they were killed and caught two dogs. They were acknowledged by their owners as their property. The traps were left set for seven days after, and no other dogs caught, which would go to prove that dogs caught were ones that did the killing. One of the owners of dogs had been previously warned that his dog was in the habit of chasing cattle in the pastures at night. Dogs were not from near neighbors of mine, but about two miles away. Kindly give me information as to what damages I can collect legally in this province. J.

Ans.—If you can prove absolutely that the dogs caught are the same as killed the sheep you can have them destroyed and can make their owners pay you a fair valuation for the sheep. The mere catching of the dogs in traps at the carcasses is scarcely absolute proof that these same dogs killed the sheep, although it is pretty good circumstantial evidence and it is quite likely these were the killing dogs. However, the difficulty would be to prove it. In Ontario, where the dog is not caught in the act of worrying the sheep the Township Council pays the owner two-thirds the valuation of the damage done. We do not know about the law in Quebec. If you are going to push your case against the owners of the dogs caught you had better see a solicitor. If not see the clerk of your township, and find out whether or not the municipality allows anything for such damage.

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Camp (Cont

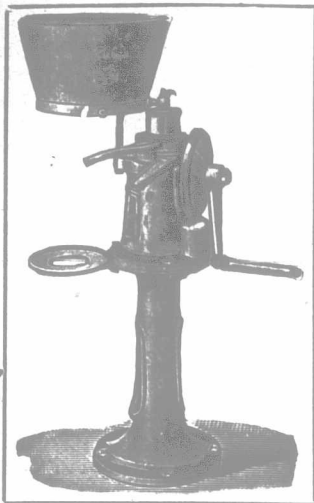
lonely than the desolat our friend that he co the shadow voices in th it is his la him from a However, th swagman p any other. after nightf solitude with hoofs, he lo self-consciou some grim S to his prese fashion, he w unembarrass to you to places his q reach. He he may be place to pla the camp fi humble but The attitud is one of times he is borrowed fr vironment. ings that m there are so one of whic into the wi different pat be closed b ervation m on with t shadowy vis generally all talking; to tination, an and the rea by the stars remarks, but

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The PREMIER increases quantity and improves quality of BUTTER. You are losing money if you are doing without a cream separator. Before purchasing examine the PREMIER carefully. Made in the largest and best equipped separator works in the British Empire.

Are you using an old separator? Bear in mind, if it is not doing good work you are losing just as much butter as you would by skimming with the pans in the old-fashioned way.

Our agent will make you a liberal allowance for your old machine.

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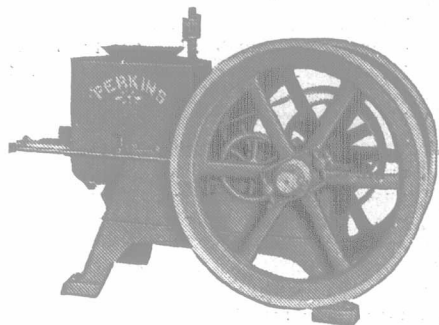
St. John, N. B.

Camp Fires of the Bush.

(Continued from page 2110.)

lonely than this tiny spot of flame in the desolate and endless darkness, but our friend has camped so often alone that he conjures up no figures out of the shadows, and hears no imaginary voices in the whispering boughs. Perhaps it is his lack of imagination that saves him from any feeling of eerie loneliness. However, that may be, the experienced swagman prefers his own company to any other. If, riding up the river road after nightfall, you burst in upon his solitude with a sudden tap of shoeless hoofs, he looks up without surprise or self-consciousness. You feel that even if some grim Spirit of the Silence rode into his presence in similar unceremonious fashion, he would receive him in the same unembarrassed way. Mechanically he signs to you to dismount, and mechanically places his quart-pot and cup within your reach. He is always hospitable, though he may be begging his own way from place to place. It is characteristic of the camp fires of the Bush; none is so humble but it extends you a welcome. The attitude of the swagman on camp is one of guarded reticence. At all times he is a man of mystery—mystery borrowed from his weird and lonely environment. There are so many happenings that may have brought him there; there are so many grades of society, any one of which may have sped him forth into the wilderness; there are so many different paths that may, any one of them, be closed behind him forever; that conversation must of necessity be carried on with tact, and a due regard for shadowy vistas and closed doors. He generally allows you to do most of the talking; to reveal your proposed destination, and the object of your journey, and the reason why you are travelling by the stars. He makes a few cautious remarks, but for the most part remains

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high-grade engine so reasonable? You take no chances when you buy a "PERKINS." We give you the privilege to try them before making settlement. The "PERKINS" is built to furnish power for the modern farm, and will do it without tinkering and fussing. They are the simplest and easiest started engine on the market, also the lightest on fuel consumption. This means considerable to you. Try one of them and be convinced.

WRITE US TO-DAY.

PERKINS WINDMILL & ENGINE CO.

90 King Street, London, Ontario

politely on the defensive, wrapped round with the shadow of mystery and the closer shadows of the night. Yet he fills the quart-pot a second time, and puts in another pinch of tea.

After you have gone he will set to work patching a spare pair of moleskin trousers, or rubbing oil on his travel-worn boots, or perhaps mixing flour and water for his next day's damper. But he, too, has his hour of absolute reward for a long day's fight with dust and flies—a stretch upon his blue blanket and a pipetful of tobacco, enjoyed as only the out-door man, healthily tired, can enjoy it.

There are swagmen of all kinds, educated and uneducated, cheerful and morose, sanguine and hopeless, but there is some subtle experience common to them all, which relegates them to one mould and manner; and surely it is the influence of the lonely camp fires!

Another traveller, whose red flower of flame blossoms in the darkness, is the man who rides, crossing the plains with his belongings on a pack horse. To this number belong the travelling shearer, the boundary rider out of work, the contractor seeking employment, the station overseer or jackaroo riding out on some business mission. These men travel long distances in the day, anything from thirty miles up to sixty or seventy, and it is generally long after dark when the first glow of their camp fire lights the edge of the scrub. They are quick and alert in choosing a camping place, and lose no time in whipping off saddle and pack, and getting their horses on to the best available grass.

With these men, as with the teamsters, the first thought is the care of the animals on which they depend. They are skilful grass thieves, and will take their tired horses quite a long way if the chance presents itself of putting them surreptitiously into some squatter's well-grassed horse paddock. Here they take

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It keeps better, does not freeze—sticks better, saves freight and storage. Besides all this 100 lbs. of Soluble Sulphur makes more spray than a 600 lb. barrel of Solution.

It is more efficient and easier to handle and apply. Soluble sulphur is a perfect control for Scales—Fungus—Peach Curl—Aphis and other infections. It is packed in drums of 100's, 50's, 25's, 10's and 5 lbs.

Remember Soluble Sulphur is a patented product and can only be procured from us.

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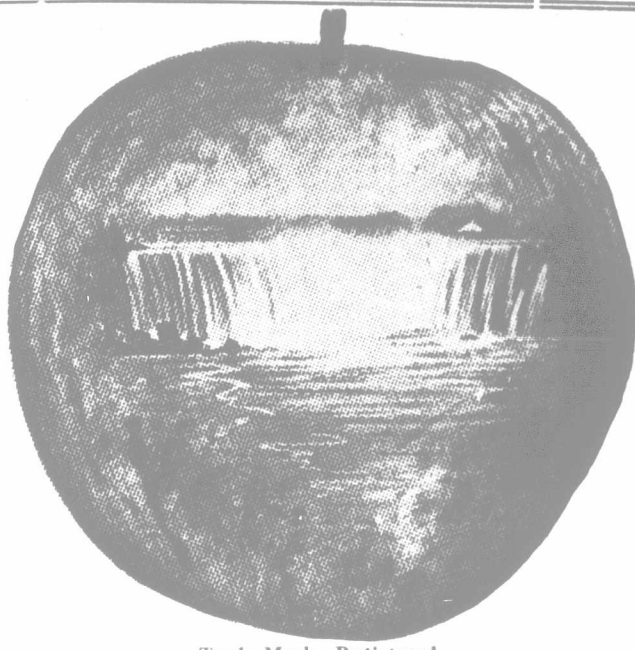
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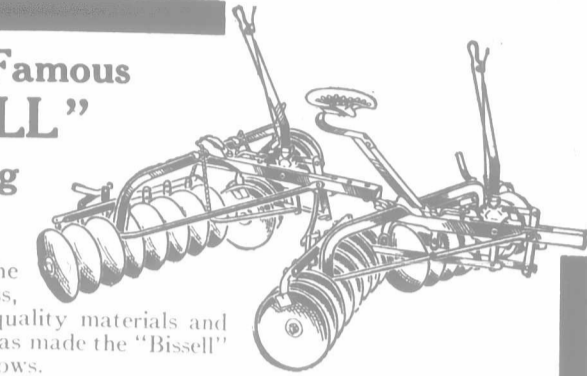
Choose the Famous "BISELL"

When Buying a Harrow!

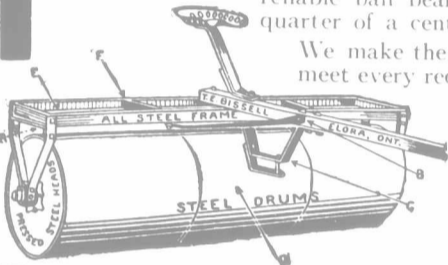
Our experience in the Disk Harrow business, combined with high quality materials and sterling construction, has made the "Bissell" the King of Disk Harrows.

The hitch is well back where the work is being done. This means light draught and ease on the horses. The frame is directly over the gangs. Horses do not carry the weight of the pole, levers, braces, frame and driver on their necks.

The "Bissell" enters the soil naturally, makes an even cut, turns it perfectly, pulverizes it thoroughly. The "Bissell" works easy in stiff soils without the need of Pressure Springs or other flimsy attachments. It has reliable ball bearings, tested and proved out for a quarter of a century.



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will pack your soil better. The 3 drum Roller is a stronger, stiffer Implement than the 2 drum style and turns about easier.

The "Bissell" is fitted with large ROLLER BEARINGS held by a one-piece CAGE and the axle revolves with the drums reducing friction to a minimum.

The entire frame, bottom plate and all, is of high quality steel and there can be no twisting, warping or sagging of Bissell Roller frames. There are many other good features making this the Roller that stands up against all kinds of hard work.

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Cost of Producing Winning Potatoes.

Editor "The Farmer's Advocate":
I have grown the heaviest yield of potatoes in 1914 in the field competition (for one acre) in Caradoc Township, Middlesex County, which speaks very highly for the Dooley potato, which I grew exclusively. I have been asked by many for the cost of production, also for my method of growing, so I thought it proper to send it to "The Farmer's Advocate" to print.

I grew the potatoes on wheat-stubble ground, which was prepared immediately after wheat was harvested by gang-plowing, harrowing once, then repeating same three times during fall season. The manure was drawn on the ground during the winter, ready in piles to spread in the spring. It was of the best quality, from stable of well-fed cattle. I spread it after seeding in the spring, then gang-plowed and harrowed once.

I planted them on the 28th of May, four inches deep, 27 inches between rows and 8 inches in the drill. These were harrowed once a week until the potatoes were five inches in height. The last harrowing was straight with the rows. They were cultivated when eight inches high once, hilling them slightly, and again just before they covered the ground, hilling a little more. This finished the work of cultivation. (The yield was 24,840 lbs., or 414 bushels, which cost \$98 to produce, or nearly 23¢ per bushel. I will give an estimate of the cost of work as follows:

Rent of ground.....	\$ 8.00
Preparation of ground.....	7.00
Manure, 20 loads.....	21.00
Drawing and spreading same.....	7.00
Planting.....	7.00
Cultivating and harrowing.....	4.00
Price of seed (25 bushels).....	15.00
Cutting same.....	3.00
Cultivating and harrowing.....	3.00
Spraying and material.....	4.00
Digging.....	4.00
Picking up same.....	10.00
Drawing in, weighing, and putting in cellar.....	6.00
Total.....	\$98.00

RICHARD SABIN,
Middlesex Co., Ont.

War Lords Impeached.

"You emperors and military bureaucracies, trustees of your peoples—phrase that would make the devil blush!—you who safeguard and pursue the 'national aspirations,' you who open the gates of the kennel and let loose the mad dogs of war; you who drive husbands from their wives, sons from their mothers' arms, and send them out by the hundred thousand to become lumps of bloody clay; you with your 'God defend the right!' and your lust for useless territory, spare one fraction of your time, from august diplomacy, to see the peoples for 'whose good' you launch this glorious murder; come out of your clouds of incense and sniff for one moment that sickly, acrid smell in the homes of the poor! And then put up prices, if you dare; then talk of national aspirations. You emperors and militarist bureaucracies! There is only one national aspiration worth the name; to have from roof to basement a clean, healthy, happy national house. War the cleanser! Without war no sacrifice no nobility! I refer you to the mother, slaving, starving, without hope and without glory, starved and ill, and slaving in a war with death that lasts all her life for the children she has borne."—John Galsworthy in Scribner's Magazine.

"All methods of putting children to sleep by monotonous sensation ought to be forbidden," says The American Inventor, "including monotonous lullabies. It is undesirable either to intercept or to prolong artificially the slumber of infants and young folks. As for the practice of rocking, Dr. Manganini has found by experiment that swaying the body for only fifteen minutes produces in a healthy adult a lowering in temperature of from one to two and one-half degrees Fahrenheit, with more or less pronounced brain anemia (bloodlessness) and pain at the heart."

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It never needs repairs. It is the cheapest fence to erect because, owing to its exceptionally heavy top and bottom wires, but half the usual amount of lumber and posts are required.

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Winnipeg, Manitoba Hamilton, Ontario

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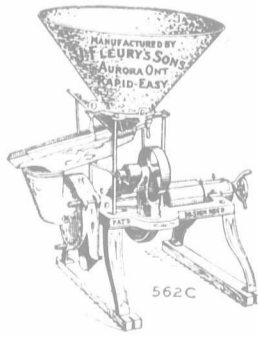


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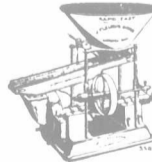
JESSE COPELAND, Bond Head, Ont.

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The Farmer's Advocate.

Gossip.

FORSTER FARM ANGUS AND DORSETTS.

This year the young stock on the Forster Farm, Oakville, Ont., has developed exceptionally well. Both in Aberdeen-Angus cattle and Dorset Horn sheep, the year has been a good one, and the youngsters have done well. Young bulls and rams are offered that should make excellent sires. The Dorset flock is now among the largest in Canada, and has been bred along the right lines. So pleased are the firm with the Dorsets that they are fitting up a new farm to be devoted entirely to Dorsets. The object is to have a hundred acres enclosed with a dog-proof fence, and many farmers would do well to copy this lead. It will go a long way towards making sheep-raising more profitable and enjoyable, adding greatly to the feeling of security. Try a young ram from this farm. The Aberdeen-Angus herd includes some stout, compact females, with a bull at the head sired by old Champion Hundred. He, too, is a fine type of Angus. The youngsters are coming along nicely, and will be ready for shipping shortly. Get a first choice. The Angus are rapidly growing in favor every year.

HOLSTEINS AT THE MAPLES DAIRY FARM.

Persistent official testing and systematic culling carried on for many years have raised the noted Holstein herd of Walburn Rivers, of Ingersoll, Ont., to a high standard of producing ability and individual excellence. Everything of milking age on the farm is in the official R. O. M., and many of them in the official R. O. P. For some years at the head of the herd was the great breeding bull, Prince Aaggie Mechthilde, whose dam and two grandams had records averaging 25 lbs. 12 ozs. of butter in seven days. Three of this bull's daughters have come to milk and show the following tests: Aaggie Posch Mechthilde, age two years, four months after calving made in seven days, 375.9 lbs. of milk and 16.857 lbs. of butter, butter-fat test 3.58 per cent.; seven months in R. O. P. test she gave 10,000 lbs. Calamity Snow Mechthilde, age two years, record seven days 381.9 milk and 16.274 of butter, butter-fat test 4 per cent.; eleven months in R. O. P. test she gave 14,201 lbs. Countess Clay Mechthilde, age one year and eleven months, seven-day test 346.5 milk, 12.606 lbs. of butter, butter-fat test nearly 4 per cent.; eleven months R. O. P. test she gave 13,151 lbs. These great heifers are sisters to the young bulls Mr. Rivers is now offering, they being by the same sire, and one of them nine months old is out of Duchess Wayne Calamity, a 20-lb. three-year-old R. O. M., and 14,077 lbs. in 340 days in R. O. P., butter-fat test 3.77 per cent. This cow is a full sister to Duchess Wayne Calamity 2nd, the senior two-year-old R. O. P. Canadian champion, with 16,714 lbs. milk and 677 lbs. butter-fat in 361 days, average test 4 per cent.; seven-day record 29.28 lbs. as a junior four-year-old. Mr. Rivers is satisfied that both these cows will make a 30-lb. record at their next freshening. A yearling bull is out of Fairmont Wayne, R. O. P. in ten months 14,700 lbs., R. O. M. 17.50 lbs. Another eight-months bull is out of Daisy Albino De Kol Duchess, the dam of the two above-mentioned cows. Her seven-day record made at eleven years of age is a little over 19 lbs. Another eight-months-old is out of Calamity Posch Wayne, seven-day record 17.50 lbs. Still another eight-months bull is out of Princess Calamity Wayne, R. O. P. record for 348 days 13,279 lbs. milk, 477.316 lbs. fat, average test 3.59 per cent.; seven-day record as a four-year-old 18.50 lbs. Combined with the great producing breeding of these young bulls is a straight, nicely-balanced individuality. For use on the daughters of this great breeding bull, Mr. Rivers has purchased the richly-bred Canary Hartog, a son of Canary Mercedes Pietertje Hartog 7th, whose dam has a seven-day butter record of 34.60 lbs., and a one-day milk record of 116 lbs., and the grandam of Canary Hartog, on his dam's side, has a one-day milk record of 119 lbs., and seven-day butter record of 30 lbs. Great things must surely result from such intense breeding as this, but Mr. Rivers is never satisfied with anything but the best.

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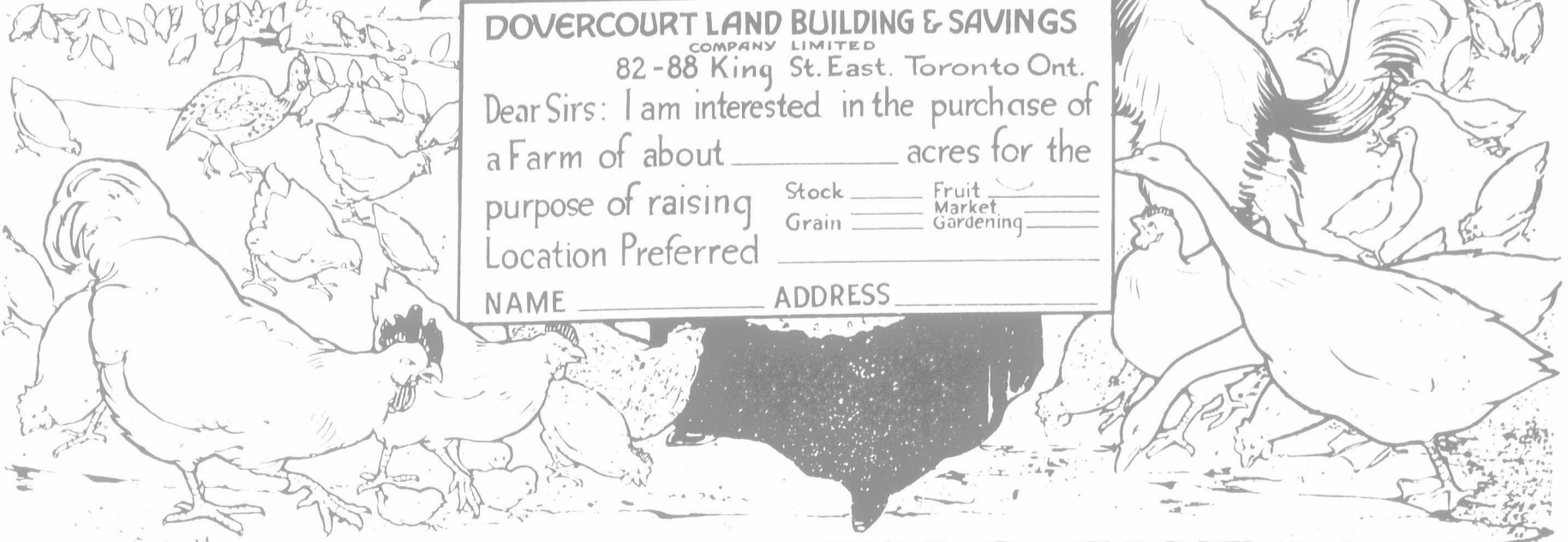
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