

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED
FOUNDED 1886

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

Dairy and Cold Storage
Commissioners Dec 31, 15
Dept. of Agriculture

Vol. L. LONDON, ONTARIO, DECEMBER 30, 1915. No. 1214

FREE

We will give absolutely free to any farmer, stock or poultry raiser one of our new 80-page booklets, which tells how to balance rations for feeding stock, milch cows, horses, etc. This also deals with the common diseases in poultry, the symptoms, treatments, etc. Tells how to build poultry houses; how to avoid all kinds of diseases in both stock and poultry; tells how to raise calves without milk, and describes fully the high-class stock and poultry remedies and foods we manufacture.



Last year our horses were troubled greatly with coughs and I used 26 tins of your Cough Specific with excellent results.

It will increase the flow of milk from 3 to 5 pounds during the winter. It will help fatten steers a month earlier, thereby saving a month's feed and labor. You can raise and fatten pigs and market them a month earlier, saving a month's feed and labor. Malcolm Gray of Komoka, Ont., says: "In regard to the feeding of Royal Purple, I had two lots of hogs. To the first lot I fed Royal Purple Stock Specific and sold them when 6 months old and they averaged 196 pounds each. On the second lot I did not use Royal Purple Stock Specific and at the same age they averaged only 150 pounds. They were both the same breed and one lot had as good a chance as the other. We have also fed Royal Purple Poultry Specific with excellent results."

Norman C. Charlton, Scott, Sask., says: "I am from Ontario and fed your Royal Purple Stock Specific when in Brownsville. My cows made the largest average and tested 5 pounds over average at C. M. P. at Brownsville. I believe you make the best conditioner on the market."

Put up in 50c. packages; \$1.50 tins that hold as much as four 50c. packages, and \$5.00 tins which hold four times as much as the \$1.50 tins. A 50c. package will last an animal 70 days. A \$5.00 tin will last 10 animals nearly three months. The cost to use this condition powder is so small that no farmer can afford to be without it, as it will average less than 1/4c. a day if purchased in large tins.

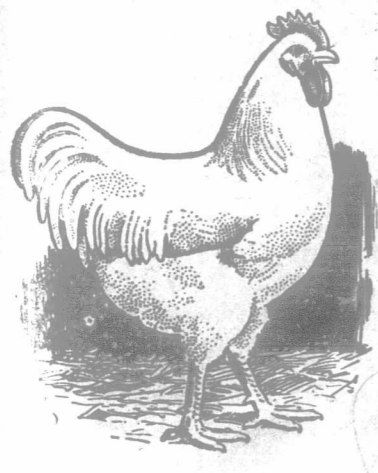
Royal Purple Stock Specific

Not a dope, but a pure unadulterated condition powder that can be fed according to directions every day. Will make the animal digest its food properly and secure the greatest good therefrom. There has not been a season in a decade when it will be so absolutely necessary to use condition powders as this coming season on account of the enormous amounts of musty grain and fodder that have been harvested. Unless farmers are extra careful, they will have many animals in bad condition due to coughs, heaves, indigestion, etc. Royal Purple Stock Specific will cause the animal to digest every particle of food and will make impurities pass through without injury. Royal Purple Stock Specific will fatten animals you have never been able to fatten before.

Mr. Dan McEwan, the veteran horse-trainer, says: "I have used your Stock Specific 8 years and have never had an animal out of condition more than a week in all that time. Your stock conditioner is the best I have ever used, and as for your Cough Powder, I can safely say it will cure any ordinary cough in 4 days."

Royal Purple Poultry Specific

Works entirely on the digestive organs of the poultry. When a bird's gizzard is working properly, it will be healthy, and when healthy will lay just as many eggs in winter as in summer. You can fatten turkeys and other fowl in just one-half the time on the same food when they digest their food properly. Royal Purple Poultry Specific should be used in the food once a day through the fall, winter and spring seasons. The cost to use it is so small that it will pay for itself 10 times over in actual results. No poultryman can afford to be without this excellent tonic. It is a hen's business to lay. It is our business to make her lay. Put up in 25c. and 50c. packages, \$1.50 and \$5.00 tins. A 50c. package will last 25 hens 70 days. A \$5.00 tin will last 200 hens for over four months.



Put up in 25c. tins; 30c. by mail.

Royal Purple Cough Cure

It will cure any ordinary cough in four days and break up and cure distemper in 10 days. The large quantities of musty grains and fodder harvested this year will start more horses coughing than in any year for a decade past. John Cartier, Bothwell, Ont., says: "I have used one tin of Royal Purple Cough Specific and found it excellent for distemper. One of my father's horses had distemper last fall and inside of two weeks the distemper was entirely cured by using your Royal Purple Cough Specific. I am recommending it to my neighbors."

Put up in 50c. tins; 60c. by mail.

Barrie, April 28th.

"The W. A. Jenkins Mfg. Co., London, Ont.: Dear Sirs,—In response to your request as to our opinion of 'Royal Purple' brands, beg to say that in two years, or rather two seasons (winter), we have sold it, we have found it the best and most satisfactory stock and poultry specific we have ever handled. We have had many testimonials from customers as to its good qualities. One lady customer told us that she used 'Royal Purple' in feeding her turkeys, and the result was that she got the highest price paid on our market for them. The buyer stated they were the best turkeys he had seen."

Respectfully yours, H. H. OTTON & SON.

Royal Purple Roup Specific

Is a most excellent remedy and every poultryman should use it in the drinking water during fall, winter and spring months. Read over what Messrs. McConnell & Fergusson have to say about it.

"Gentlemen,—Enclosed you will find a photograph of one of our 'Dul-Mage' White Rocks. Isn't he a big-boned vigorous specimen? About three years ago we had a hen nearly dead with the roup, and after trying a number of remedies, sought the advice of Mr. Wm. McNeill, the well-known poultry judge, and he advised us to kill her at once, as it was impossible to save her life. She was not a valuable hen, and we thought it better to experiment further, as we might have a more valuable bird to treat later on. We got a package of your Roup Cure, and it relieved her at once. At the end of a week's time she was completely cured. We have put a little of your Roup Cure in the water from time to time, and have only had one case of roup in our immense flock in the last three years."

(The bird shown in this advertisement is reproduced from McConnell & Fergusson's photo.)

Put up in 25c tins; 30c. by mail.

Royal Purple Calf Meal

You can raise calves on this meal without using milk. It is without doubt the highest grade calf meal on the Canadian market. This year we gave two \$25.00 prizes at the Western Fair, London, Ont., for the two best calves raised entirely on our calf meal. Read what Mr. Lipsit, who won these prizes, has to say about this meal. Mr. Lipsit is probably one of the best-known Holstein cattle men in Canada.

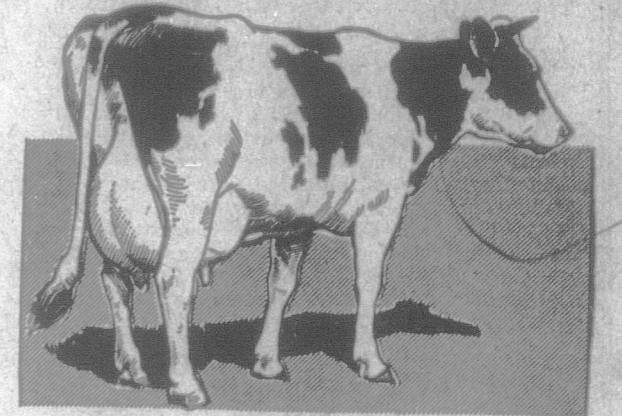
"The W. A. Jenkins Mfg. Co., London, Ont.: Dear Sirs,—Replying to your letter of Sept. 18th, my bull's name is Funderine King May Payne. I am having printed now an extended pedigree of him, which I will be pleased to forward you, along with his photograph, as soon as completed."

"The calves I won your two special prizes on were Forest Ridge Payne Elite and Forest Ridge Payne Calamity 2nd. They were both fed regularly on your calf meal, as well as the calf that won first at the Canadian National Exhibition, Toronto, this year in a class of 33. I also won first and your special prize at the Stratfordville Fair here on another calf."

"The above I believe to be recommend enough for one breeder, as I have used several different calf meals, and have not found any quite so satisfactory."

Yours truly, L. H. LIPSIT.

\$4.00 a cwt. F.O.B. London, Ont.



Peace River Crossing, Alta., Oct. 4, 1915.

"The W. A. Jenkins Mfg. Co., London, Ont.: Dear Sirs,—I used your Roup Cure last spring and can safely say that it saved my flock. Previous to my getting the remedy I had lost 37 hens, and after I began using it I only lost three and the entire flock were affected. Many people here have small chicks and they all complain of the roup condition of their fowl. There seems to be something in the climate or soil that caused the disease."

Yours very truly, J. W. MARR.

- We also manufacture:
- Royal Purple Sweat Liniment—8-oz. bottles, 50c.; by mail, 60c.
 - Royal Purple Gail Cure.—25c. and 50c. packages, 30c. and 60c. by mail.
 - Royal Purple Disinfectant—25c., 50c. and \$1.
 - Royal Purple Worm Powder—25c. tins; 30c. by mail.
 - Royal Purple Lice Killer—25c. and 50c. tins; 30c. and 60c. by mail.
 - Royal Purple Linseed Meal.
 - Royal Purple Chick Feed—25c. packages, 100-lb. bags.

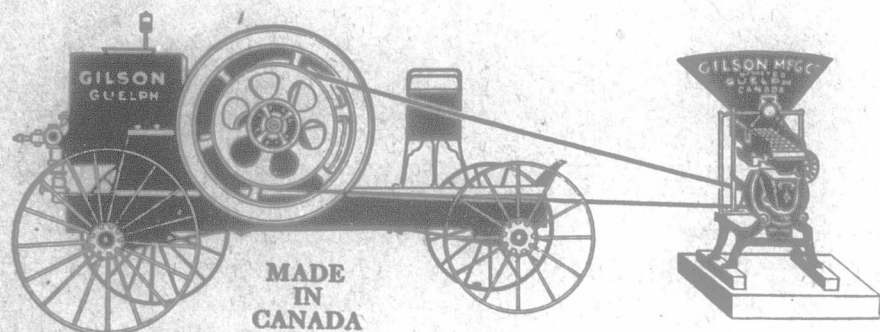
We sell only to the trade, but if you cannot get these goods from a merchant in your town, we will send any 25c. tin by mail for 30c. and any 50c. package for 60c. Larger packages will be forwarded by express or freight.

Made in Canada by Canadian capital and labor.
THE W. A. JENKINS MFG. CO., LONDON, ONT.

One of these GILSON PRODUCTS is built for you

You will eventually get a Gilson Engine, Ensilage Cutter, or Silo
WHY NOT MAKE YOUR SECOND PURCHASE FIRST

M. I. Adolph, of Gowanstown, Ont., writes: Gentlemen,—“About three years ago I purchased a Gilson Engine from you. On the strength of the excellent service rendered by the engine, I purchased a Gilson Papec Ensilage Cutter last year, and also a Gilson Hylo Silo. I filled 17 feet in my 12x30-ft. Hylo Silo in 7½ hours on the ½-inch cut with my 8 h.-p. engine and the Gilson Ensilage Cutter. We would have filled the complete silo in the same time if we had used the 1-inch cut, but we had no more corn. I am satisfied that my Engine, Ensilage Cutter and Silo represent the best in their several lines. Certainly their performance was a revelation to everyone. I can strongly recommend Gilson Engines, Ensilage Cutters and Silos to anyone wanting the best that is made.”



THE WONDERFUL GILSON PAPEC



GUARANTEED to cut and elevate more ensilage with the same power than any other blower cutter.

POWER plus service

When you buy a “GILSON” Engine you buy *reliable power plus service*. We point with pride to the many GILSON Engines turned out in the early part of our career, that to-day are running as smoothly and giving the same reliable service as when they left our factory.

Owners of “GILSON” Engines will tell you frankly that their engines have actually *cost them less* and given them *more service* than engines which could have been bought at a far lower first cost. Durability—dependability—*Service to the Buyer* are the watchwords of the GILSON factory.

Send for **FREE Engine Catalogue To-day.**

Dear Sirs:—I have had a Gilson 6 h.-p. engine for eight years and it is equally as good as new now, after doing all our work. In all this time, I have had absolutely no expense for repairs. I would not be without it for anything. I can chop a bag of the heaviest grain in four minutes,—mixed grain and oats in less time. I also use it on the circular saw, rip saw, cutting box, etc. All these jobs it handles very easily. Compared with other makes of engines around me, I am perfectly satisfied with its economy of fuel.

H. Tutton, Branchton, Ont.

THE HYLO SILO

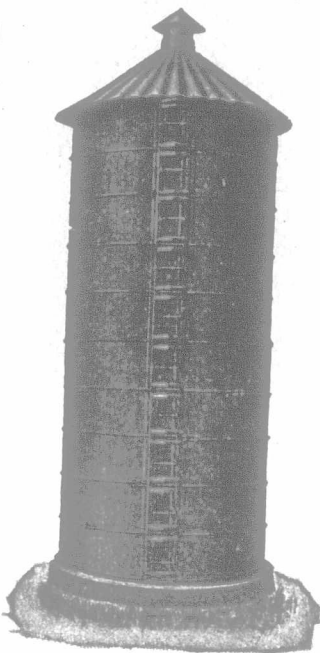
The Mortgage Lifter—The Money Maker

THE HYLO SILO is scientifically designed, and made of IMPORTED LONG LEAF SOUTHERN YELLOW PINE,—the one wood prepared by nature to resist the acids generated by ensilage. Special construction, such as tongued, grooved and beveled joints on both sides and ends of staves, patented door frame, convenient, perfect fitting doors, permanent anchoring device, etc., insure long life, convenience, and strength to withstand storms and varying weather conditions. The Hylo Silo is leak-tight and mildew proof, with no metal parts, and no porous walls.

Write for free HYLO SILO book to-day.

Gentlemen:—I opened my 12x36 Hylo Silo recently, and was very much gratified at the condition in which we found the silage. The expert who erected our Hylo Silo put up over fifty of various makes this season, and was quite sincere in saying the Hylo was the best of them all. I have not heard from all of the other six Hylos that you sold to my neighbors, but those of which I have heard are all giving the same excellent satisfaction.

E. H. SILLS, Napanee, Ont.



AGENTS WANTED

Fill Your Own Silo With a Light-Running GILSON

Use your own gasoline engine (4 H.-P or more) and fill your silo with a Gilson Papec,—that light running cutter that throws and blows. Be independent of the corn cutting gang. Cut your corn at the right stage, and save half its feeding value. The Gilson Papec means

**Better Ensilage
 Fewer Delays
 Greater Durability
 Big Saving in Power
 Higher Elevation**

Has one-piece semi-steel frame,—bearings always in alignment. Easy to set up, operate and take down. Capacities 3 to 30 tons per hour. Thousands in use.

The Gilson Papec is used only by up-to-date and progressive men, who recognize that the best is the cheapest.

Write for Ensilage Cutter Catalogue To-day

Gentlemen:—I am exceedingly enthusiastic over my 0-10 Gilson Papec Ensilage Cutter. It is certainly a wonder. My silo is forty-five feet high, and I put it up there with a 7 H.-P. Engine
 FRED ABBOTT, Mossley, Ont.

Gentlemen:—I want to tell you what we did with our 6 H.-P. Gilson Engine and an N-13 Gilson Ensilage Cutter. We filled and refilled a 40 x 12 ft. Silo in 16½ hrs. We had a 14” pulley on the cutter. Everybody said we couldn’t do it, and laughed at us for even attempting it, but we did the job to everybody’s surprise. The outfit made a record, cutting at the rate of five loads per hour.
 Yours truly, J. GILDNER, Berlin, Ont.

THE GILSON MFG. CO., Limited, 259 York Street, GUELPH, CANADA

PATENTS AND LEGAL
FETHERTONHAUGH & CO., PATENTS
 Solicitors—The Old Established Firm. Head Office: Royal Bank Building, Toronto, and 5 Elgin St., Ottawa, and other principal cities.

CUT THIS OUT



Farmer's Advocate Pen Coupon, Value 4c
 Send this coupon with remittance of only \$1.52 direct to the Fleet Pen Co., 119 Fleet Street, London, England. It return you will receive by registered post, free, a splendid British-made Fleet gold nibbed, self-filling Fleet Fountain Pen, value \$4 (16s. 6d.). Further coupons, up to 13, will each cost you 1c of the price, so you may send 14 coupons and only \$1. Say whether you want a fine, medium or broad nib. The great offer is made to introduce the famous Fleet Pen to Canada. Over 100,000 have been sold in England. Agents Wanted. Liberal Terms

We pay highest Prices For **FREE**

RAW FURS

And Remit Promptly

John Hallan Limited

More Trappers and Fur Collectors send their Raw Furs to us than to any other five houses in Canada. Because they know we pay highest prices, pay mail and express charges, charge no commissions, and treat our shippers right. Result, we are the largest in our line in Canada. Ship to us today and deal with a Reliable House. No Shipment too small or too large to receive our prompt attention.

Guns We sell Guns, Rifles, Traps, Animal Bait, Sheepcra, Flashlights, Headlights, Fishing Nets, Fishing Tackle and Sportsmen's Supplies at lowest prices. CATALOG FREE.

Hallan's Three Books "Trapper's Guide" English or French 96 pages, illustrated, tells how and where to trap and other valuable information for trappers; also "Trapper's and Sportsmen's Supply Catalog" "Raw Fur Price List," and latest "Fur Style Book" of beautiful fur sets and fur garments. All these books fully illustrated and sent FREE ON REQUEST.

313 Hallam Building **TORONTO**



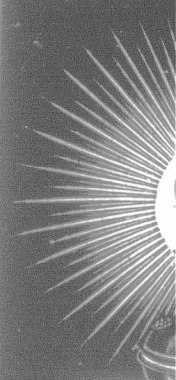
Build Concrete Silos
 Anysize with the London Adjustable Silo Curbs. Over 9,000 concrete silos built in Ontario with our Silo Curbs. Send for Catalogue No. 10. **London Concrete Machinery Co., Limited, Dept. B, London, Ontario.** Largest Manufacturers of Concrete Machinery in Canada.

RAW FURS

Highest cash price paid for raw furs. Oldest in trade. Write for price list and tags—FREE.
C. H. ROGERS, WALKERTON, ONT.

Wonderful Coal

Burns Vapor Saves Oil



Awarded **GOLD MEDAL** at World's Exposition San Francisco

10-Days

Send No Money

We don't ask you to have used this wonderful home ten day portable lamp. No expense if not perfect to every possible you that it makes like a candle; beats them. Lights and is ready enjoying his light, nearest to sun

Burns 70 H.

common coal oil, as much light as 10 flame lamps. No simple, clean, no Children run it. Tests at 33 leading ment Bureau of Sta

\$1000.00

to the person who sl to the new ALADDIN our circular.) Wou challenge if there y as to the merits of

Men Make \$5

Month With Rig the ALADDIN in vious experience every farm home will buy after try had never sold anyth "I sold 51 lamps the says: "I disposed of Thousands who are ALADDIN just as st

No Mon

We furnish capita started. Ask for our how to make big mo Sample Lamp sent

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Free Trial. Send co

WANTLE LAMP CO., Largest Kerosene (Coa in the World. Montr

10-Day FREE T

I would like to know and your Easy Deliv experienced men with without capital. Th

Name P.O. Address

Harab Fertiliz

Write fo THE ONTARIO F West

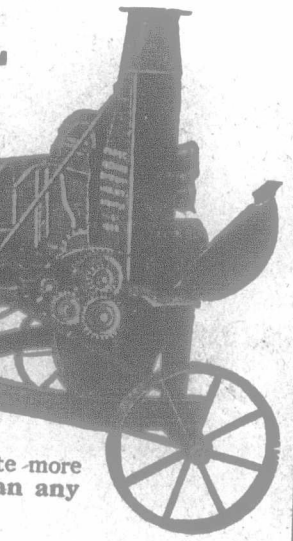
Louden Bar

SAVE Time—Save Our new catalog kind of device and labor saving Louden Mach Dept. 1

Please mention "Th

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I am satisfied that my
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ABBOTT, Mossley, Ont.

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10 1/2 hrs. We had a 14"
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J. GILDNER, Berlin, Ont.

CANADA

Build
Concrete Silos
Any size with the London Ad-
justable Silo Curbs. Over
9,000 concrete silos built in
Ontario with our Silo Curb.
Send for Catalogue No. 10.
London Concrete Machin-
ery Co'y, Limited, Dept.
B, London, Ontario. Largest
Manufacturers of Concrete
Machinery in Canada.

FURS

paid for raw furs. Old-
ite for price list and tags

WALKERTON, ONT.

Wonderful New
Coal Oil Light

Burns Vapor Saves Oil Beats Electric or Gasoline



Awarded GOLD MEDAL at World's Exposition San Francisco
Scientists say its White Light is nearest to day-light in color

10-Days FREE TRIAL

Send No Money, We Prepay Charges

We don't ask you to pay us a cent until you have used this wonderful modern light in your own home ten days—we even prepay transportation charges. You may return it at our expense if not perfectly satisfied after putting it to every possible test for 10 nights. You can't possibly lose a cent. We want to prove to you that it makes an ordinary oil lamp look like a candle; beats electric, gasoline or acetylene. Lights and is put out like old oil lamp. Tests at 33 leading Universities and Government Bureau of Standards show that it

Burns 70 Hours on 1 Gallon

common coal oil, and gives more than twice as much light as the best modern wick open flame lamps. No odor, smoke or noise, simple, clean, no pressure, won't explode. Children run it. Several million people already enjoying this powerful, white, steady light, nearest to sunlight. Guaranteed.

\$1000.00 Will Be Given

to the person who shows us an oil lamp equal to the new Aladdin (details of offer given in our circular.) Would we dare make such a challenge if there were the slightest doubt as to the merits of the Aladdin?

Men Make \$50 to \$300.00 per Month With Rigs or Autos Delivering

the ALADDIN on our easy plan. No previous experience necessary. Practically every farm home and small town home will buy after trying. One farmer who had never sold anything in his life before writes: "I sold 51 lamps the first seven days." Another says: "I disposed of 34 lamps out of 81 calls." Thousands who are coining money endorse the ALADDIN just as strongly.

No Money Required

We furnish capital to reliable men to get started. Ask for our distributor's plan, and learn how to make big money in unoccupied territory. Sample Lamp sent for 10 days FREE TRIAL.

We want one user in each locality to whom we can refer customers. Be the first and get our special introductory offer, under which you get your own lamp free for showing it to a few neighbors and sending in their names. Write quick for our 10-day Absolutely Free Trial. Send coupon to nearest office.

MANTLE LAMP CO., 221 Aladdin Building
Largest Kerosene (Coal Oil) Mantle Lamp House in the World. Montreal, Can. Winnipeg, Can.

10-Day FREE TRIAL Coupon 221

I would like to know more about the Aladdin and your Easy Delivery Plan, under which inexperienced men with rigs make big money without capital. This in no way obligates me.

Name
P.O.
Address Prov

Harab-Davies
Fertilizers Yield Big Results

Write for Booklet.
THE ONTARIO FERTILIZERS, LTD.
West Toronto

Louden Barn Equipments

SAVE Time—Save Labor—Save Expense

Our new catalogue describes every kind of device for money making and labor saving on farms. Write to:

Louden Machinery Company
Dept. 1 Guelph, Ont.

Please mention "The Farmer's Advocate."

Offer
Extended



OUR Special Gift Offer has been extended to January 5th in order to give all our farmer friends a chance. With every 98-lb. bag of flour ordered between now and that date we will give an interesting novel or cook book free. After January 5th, one book will be given with every four bags. Make out your order at once, and select your books from list at bottom of advertisement.

Cream of the West Flour

the hard wheat flour guaranteed for bread

GUARANTEED FLOURS Per 98-lb. bag

Cream of the West Flour (for bread).....\$3.45
Toronto's Pride (for bread)..... 3.25
Queen City Flour (blended for all purposes)..... 3.15
Monarch Flour (makes delicious pastry)..... 3.05

CEREALS

Cream of the West Wheatlets (per 6-lb. bag)..... .30
Norwegian Rolled Oats (per 90-lb. bag)..... 3.00
Bob-o-link Cornmeal (per 98-lb. bag)..... 2.40

FEEDS Per 100-lb. bag

"Bullrush" Bran.....\$1.30
"Bullrush" Middlings..... 1.30
Extra White Middlings..... 1.45
"Tower" Feed Flour..... 1.75
Whole Manitoba Oats..... 1.80
"Bullrush" Crushed Oats..... 1.85
Sunset Crushed Oats..... 1.70
Manitoba Feed Barley..... 1.85
Barley Meal..... 1.90
Geneva Feed (crushed corn, oats and barley)..... 1.80
Oil Cake Meal (old process, ground fine)..... 2.25
Chopped Oats..... 1.85
Feed Wheat..... 1.80
Whole Corn..... 1.95
Cracked Corn..... 2.00
Feed Corn Meal..... 1.95

Prices on Ton Lots: We cannot make any reduction on above prices, even if you purchase five or ten tons. The only reduction from the above prices would be on carload orders.

Terms Cash with Order: Orders may be assorted as desired. On shipments up to five bags, buyer pays freight charges. On shipments over five bags we will prepay freight to any station in Ontario, east of Sudbury and south of North Bay. West of Sudbury and New Ontario, add 15 cents per bag. Prices are subject to market changes.

LIST OF FAMOUS BOOKS:

Ye Olde Miller's Household Book.—Over 1,000 tested recipes, and large medical section. Enclose 10 cents to pay postage and packing on this book. No postage asked for on other books.
Black Beauty, by Anna Sewell.
Rebecca of Sunnybrook Farm, by Kate Douglas Wiggin.
Little Women, by Louisa Alcott.
Innocents Abroad, by Mark Twain.
The Lilac Sunbonnet, by S. R. Crockett.
Quo Vadis, by Sienkiowicz.
Lorna Doone, by R. D. Blackmore.
The Three Musketeers, by Alexandre Dumas.
The Mighty Atom, by Marie Corelli.
Mr. Potter of Texas, by A. C. Gunter.
Beautiful Joe, by Marshall Saunders.
A Welsh Singer, by Allen Raine
Adam Bede, by George Eliot.
Helen's Babies, by John Habberton.
Tom Brown's School Days, by Thos. Hughes.
David Harum, by E. N. Westcott.
The Scarlet Pimpernell, by Baroness Orczy.
The Mill on the Floss, by Geo. Eliot.
Jess, by Rider Haggard.
The Story of an African Farm, by Olive Schreiner.

The Campbell Flour Mills Company
LIMITED
(WEST) TORONTO, ONTARIO

Better Butter—
Bigger Profits!



If you wish your butter to be smooth and uniform, use the

"BRITISH" Butter Worker

Adopted by the best dairies in Gt. Britain and Canada. Makes the butter firm—even-consistent all through. Results in better butter and bigger profits!

Sold by dealers everywhere. Three sizes—14 in., 17 in. and 20 in. wide.

MAXWELL'S, LTD. - St. Mary's, Ont.

GRAND TRUNK RAILWAY SYSTEM
NEW YEAR FARES

SINGLE FARE

Good going Dec. 31st, 1915, and Jan. 1st, 1916

Return limit, January 3rd, 1916

FARE AND ONE-THIRD

Good going Dec. 29th, 1915, to Jan. 1st, 1916, inclusive.

Return limit, January 4th, 1916

Return tickets will be issued between all stations in Canada east of Port Arthur and to Detroit and Port Huron, Mich., Buffalo, Black Rock, Niagara Falls and Suspension Bridge, N. Y.

Tickets and full information on application to Grand Trunk Ticket Agents.

SAVE MONEY AND BUY YOUR

Seed Now

No. 1 Red Clover at \$17.00 per bushel.
No. 1 Timothy at \$5.50 per bushel.
We pay railway freight on \$25.00 order or more, in Ontario and Quebec.
Allow 30c. for each cotton bag required.
We have a small quantity of Grimm or Variegated Alfalfa. If interested, write for prices.
We are buyers of Red, Alsike and Alfalfa Clovers and Timothy Seed.
Write us and send samples.

GEO. KEITH & SONS

124 King St. East Toronto

"1900" Gravity Washer

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

"1900" WASHER COMPANY

357 Yonge Street Toronto, Ont.
(Factory 79-81 Portland St., Toronto)

London Engine Supplies Co.
Limited

LONDON CANADA

Our L. E. S. Water Works System will give you the comfort of High Pressure Water System for your home or about the farm. Refer to the Christmas Number for details.

When Building—Specify

MILTON BRICK

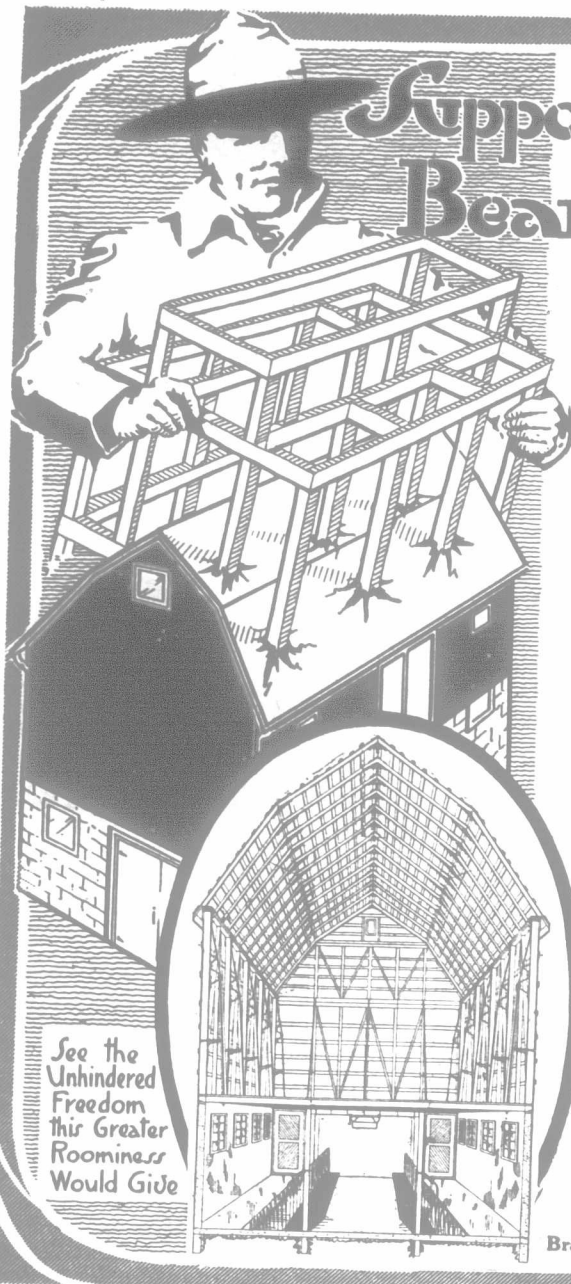
Smooth, Hard, Clean-Cut.

Write for Booklet.

MILTON PRESSED BRICK COMPANY
Milton, Ontario



THE CANADA LINSEED OIL MILLS, LTD.
TORONTO & MONTREAL



Suppose You Could Take Those Massive Beams Right Out of Your Barn

THINK of the clear, broad sweep of space from wall to wall and floor to roof their removal would give you. Think of the unhindered freedom in the mows or any part of the barn, this Greater ROOMINESS would bring! Greater ease in haying! More space for storing grain.

PEDLAR'S STEEL BRACE BARN'S

bring you for the first time the most convenient use of every inch of space within your barn—and with a positive strength of structure that even the costly wooden beams could not give.

Greater Roominess Along the Walls
Notice how the Pedlar Steel Brace, "Wardle Patent," sets up close to every post. Extending only three feet at the base, it is entirely out of the way at all times. The Pedlar Steel Brace is not a new, untried idea, but a brace that has proved its strength and convenience through the test of ten years' usage.

Absolute Freedom at the Hips
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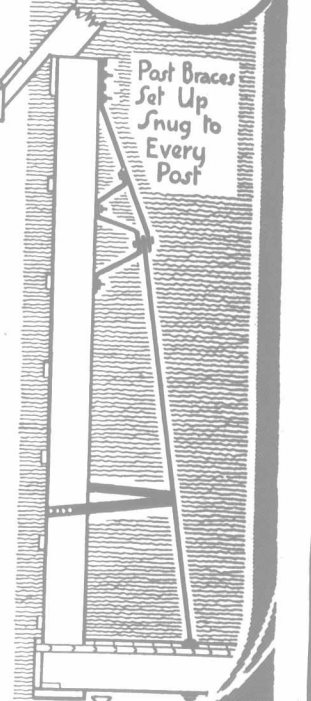
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London, Canada

The Farmer's Advocate and Home Magazine

PERSEVERE AND SUCCEED

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ESTABLISHED 1875

VOL. L. LONDON, ONTARIO, DECEMBER 30, 1915. No. 1214

EDITORIAL.

Prepare to put in ice.

You cannot fatten stock without feed.

If you are going to sell a horse next spring, fit him first.

There is time now to use the fanning mill on the seed grain.

Keep the store cattle growing. No money is made by letting young stock stand still.

THE FARMER'S ADVOCATE wishes all its readers A Bright and Prosperous Year, 1916.

Remember, always, the soldiers at the front. Anything which makes for their comfort will aid the Allies to win the war.

Did you save the Christmas Number? The number of congratulatory messages arriving at this office indicates that it was worth saving.

There are no hard and fast rules for winter feeding. The individuality of the animal and the capability of the feeder are of prime importance.

If there is no Farmer's Club or Literary Society in your district, this is a good time to organize. Discussion is a fine seed-bed for thought and action.

Horned cattle and buck lambs are not market toppers. Stop the horns on the calves with caustic potash and unsex all lambs before two weeks of age.

The market demand is for baby beef and butchers' cattle well finished. Heavy cattle are not wanted. Feed the cattle off at an earlier age and make the greatest profit.

There will be money in the laying hen. If Canada produces enough good eggs and markets them in first-class condition, there is a fine opportunity to establish a strong export trade with Britain.

It is said that a French Government Commission is going to visit Canada to arrange for the purchase of war material in this country. They might, if permitted, take a few of the farmers' surplus horses.

It is already intimated that the new regime in China is not going to prove popular, and the man who made it possible for the present ruler to become a great man may upset his monarchical aspirations.

You have finished threshing before this. If the grain did not turn out as well as you thought it should have done, perhaps it would pay to change the variety. There is no use working with inferior yielders.

"Produce! Prepare! Grade! Market! Advertise!" These are the slogans which the Canadian farmer and the Canadian dealer in farm products must pay attention to if Canada is to establish her goods as they should be established in the markets of the world.

This is Canada's opportunity, we are told. Here's hoping that the Canadian farmer takes full advantage of it and gets his just share of the profits arising from it. Agriculture needs big men as representatives in parliament, on Commissions, and in the general affairs which go to make farming profitable or otherwise.

Agriculture's Mainstay.

Live stock is the mainstay of all agriculture. We were somewhat surprised in reading a number of reminiscences of the early times in Western Canada to find that in most of the cases where a man had made good he had attributed his success, even in the beginning, to the keeping of live stock. The great West has in time past been generally considered, and rightly so, a grain growing country, but in these reminiscences published in THE FARMER'S ADVOCATE and Home Journal of Winnipeg, we find that through the trials of the early days, when the wheat failed, in one case as often as seven times out of nine due to drouth or frost, live stock saved the settler and made it possible for him to live on his land and develop the country, making money for himself as well. When the wheat was frosted, a man with a few pigs, a few cattle and some poultry, was able to go through the winter without the hardship experienced by the settler who attempted to farm with wheat alone. It was not generally conceded in those days that live stock was necessary, and no doubt failures were many because the settlers had not learned the lesson that mixed farming paid. In the East mixed farming was also practised in the beginning. The cow and the hens and the pigs came with the early settlers, and it is largely due to the live-stock branch of agriculture that farming has attained whatever success it has in Canada, and more and more as time goes on and the fertility of the land requires replenishing will live stock be recognized as a first principle in all our farming operations, and more and more will it be recognized that good live stock is more profitable than scrubs.

Unfair to the Farmer.

A short time ago particular stress was laid upon certain statements made by the Toronto Humane Society to the effect that farmers maltreat their animals. Several cases of neglect and the working of lame horses were brought to the attention of the Society, and a prominent "J.P." expressed it as his opinion that these cases were typical of conditions to be found too commonly in the rural districts, and declared that some of the very worst cases of cruelty were to be found on the farms. We are not upholding any man be he farmer, teamster, stable-boy, or what not, for abusing or exercising cruelty upon any animals under his charge, but we do object when a city man makes the statement that cruelties such as working horses which are very badly crippled, starving them, moving away from deserted farms, leaving a horse or horses to rustle for themselves and otherwise subjecting the animal to such treatment that the bones wear through the skin, is typical of conditions commonly found on Canadian farms. We venture to say that none of the cases cited by the Humane Society were found on real farms, but were far more likely located in some of the shack-town area around Toronto or where some mere squatter who had collected a few dollars thought he could farm, and had invested in a few acres of vacant lots and lost his money through lack of knowledge of what was necessary to make a living from the land.

From our experience, both in the country and in the cities, we have not seen as much abuse of animals on the farms as on the city streets. Real farmers are good teamsters, know how to handle horses and know how to feed stock, and, knowing that in their live stock they have the source of greatest profit and that abuse can in no way pay them, and also having a heart, they give their animals fair treatment and should not be placed in the light of being brutal and cruel by any association, particularly one which operates in the city and knows very little of the conditions on Ontario's well-regulated farms.

Apply Manure in Winter.

The season is again here when the average farm in the East is turning out a fair quantity of farm fertilizer daily, and with it comes the question whether or not this barnyard manure should be applied to the land as made, or piled in the yard or manure-shed to rot ready for application next spring before the corn or root ground is prepared for the crop. We have heard a good many discussions of this question and we have come to the conclusion that one year with another, provided the soil is at all level so that too much is not lost in the spring run-off, it is more profitable to apply in the winter, as made. In the first place, the manure goes a great deal farther, and we believe this is a good thing, because the average man applies his farmyard manure to the soil in altogether too heavy coats. Smaller quantities at more frequent intervals would surely be a better practice than applying more manure at a time than the next two or three crops will require, thus making conditions more favorable for leaching and loss. The labor question is going to be more acute next summer than it has ever been in Canada. Farm laborers will be in khaki and farmers will be forced to manage well, otherwise their work will lag. The manure can be put out through the winter at the slack season, saving time next summer, and, besides this, on most soils green manure is more valuable than manure which has been well rotted. Of course, well-rotted manure should be applied in intensive agriculture or vegetable gardening, but for the average farm, where manuring is done on a large scale, the long, strawy article applied direct from the stable is more valuable than the shorter, well-rotted manure. In putting the manure straight from the stable to the field extra handling is avoided and much loss through bad methods of saving is prevented. The man who has not a suitable manure shed where he can keep his manure covered until applied generally loses by attempting to pile it in the yard and haul it in the spring. Where it must be piled it should be kept up in a neat, well-tramped, solid heap, away from the eaves and preferably the manure from all classes of animals should be mixed together. But for this winter we would recommend drawing to the field as made and spreading on the snow. We do not favor piling out in heaps in the winter. We tried that last year, but this year are taking it from the barn as made and are spreading it on the snow. The heap method may be all right, but spreading now saves the work of spreading in the spring, which is much more difficult to accomplish as the manure stays frozen in these small heaps quite late in the spring, holds the snow and frost under them, and by the time the frost is out so it can be spread it is so dried out that it is shook apart with difficulty. We believe that this year it is more important than ever that most of the manure should go to the field during the winter.

Efficiency in the Farm Factory.

A crop rotation system has been defined as the adoption of a fixed system of farm crops to be grown successively on the same soil at regular intervals. It is a matter of regret that more of our farmers have not adopted a fixed cropping system with particular stress placed upon a complete change of crop in as few years as possible. A short crop rotation simply means the application of business efficiency in the farm factory, which means not only the field, but in the stable. Short rotations mean a smaller acreage of cereals, a greater area of hoed crops, more clover and pasture, and consequently more live stock and a larger amount of manure to apply to the land, which, summed up, means bigger yields from the farm both in crop and financial returns. And with all this the farm should be getting cleaner all the time because a short rotation, with an increased

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

Published weekly by
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

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

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s.; in advance.
3. ADVERTISING RATES.—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
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12. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots or Vegetables not generally known. Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
13. ADDRESSES OF CORRESPONDENTS ARE CONSIDERED AS CONFIDENTIAL and will not be forwarded.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.
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THE WILLIAM WELD COMPANY (Limited),
London, Canada.

hoed crop kept clean, means fewer weeds year by year. Rotating crops is simply organizing the farm into departments, working in harmony one with the other, on the same system as a departmental store. Each department strengthens the others. While it is not possible to bring a farm under a rotation all at once, considerable planning can be done during the winter months, and when spring comes, every farm in Eastern Canada should be started, if not already well advanced in a definite rotation of crops, preferably a three-or-four-year rotation and certainly not more than a five-year. We refer, of course, to the farms being operated as mixed farms, and not to specialized agriculture.

Poor Seed a Source of Loss.

It is hard to understand why men will persist in being careless with their seed grain. They know full well that clean, plump, virile seed is far more likely to give them a high yield of grain per acre than is dirty, shrunken, sprouted, musty or damaged seed, and yet very often no efforts are made to secure the good seed, the grain bin being called upon when time for sowing comes, and the seed, whatever is there, taken from it without special effort to clean or select. The sowing of shrunken seed may be responsible for the falling off in yield of anywhere from 4 to 15 bushels per acre as compared with plump seed. Sprouted grain is not good seed. According to experiments carried on by Prof. Zavitz, at the O.A.C., sprouting injures the seed, and only 94 per cent. grew where the skin of the germ was unbroken, 76 per cent. where the skin over the germ was broken, 30 per cent. where the sprouts were $\frac{1}{4}$ inch long, and only 18 per cent. where the sprouts were 1 inch long. It may be early to be talking about seed for next spring, but there is always a rush when seed time comes, and the man who is prepared weeks or months before generally is the man who sows good seed and puts it in well. Some of these winter days could be very profitably spent in cleaning and selecting seed from the best bins of grain in the granary, and, by the way, if you do not happen to have some of the high-yielding varieties, it might pay you to make a change. It has been amply proven that there is something in variety, and there is no use sowing poor yielders when more bushels may be had from another variety.

A Liberal Offer.

We have had a liberal response to our offer to send the Farmer's Advocate and Home Magazine for the year 1916 to a regular subscriber and one new subscriber for the sum of \$2.25. We had intended to close this offer January 1st, but we feel that many more of our readers would like to send us a new name and their own renewal at this low rate of \$2.25 for the two subscriptions for 1916, and the new subscriber to get a copy of our half century Christmas issue, which is generally conceded to be the high-water mark of Canadian agricultural Journalism. Therefore, we have decided to extend the time for accepting renewals and new subscriptions on this special offer. The chance is still open for a short time to avail yourself of this unequalled opportunity. Send in your renewal and a new name immediately, so that no issues of the paper are missed by yourself or the new subscriber. The Farmer's Advocate will contain more information for farmers in 1916 than it has done in any one year in the past. You cannot afford to miss this special offer.

Anniversary Number Appreciated.

We are pleased to be able to publish a few of the many expressions of delight with our Christmas Number which have come to hand since it left this office, December 9th. We quote the following from letters received:

"I have just received a copy of the Jubilee Number of THE FARMER'S ADVOCATE. It is certainly a creditable production, and I desire to congratulate you on the magnificent outcome of your efforts. The late Wm. Weld, in starting this paper, 'built better than he knew.' It will remain his enduring monument through all time."

St. Paul, Minn.

THOS. SHAW.

"I have enjoyed most thoroughly the reading of your Christmas Number. It is packed full of valuable material in regard to the development of our Canadian agriculture, and this number will be used for many years to come as a valuable reference in connection with agricultural historical materials."

Toronto.

C. C. JAMES.

"You certainly gave your subscribers a generous treat in the Christmas Number of THE FARMER'S ADVOCATE."

N. S.

J. R. SEMPLE.

"I congratulate you most heartily and thoroughly on the excellence of your Christmas Number as viewed from every standpoint. The whole edition is extremely creditable and should do much to strengthen the position of the ADVOCATE through the farming community."

York Co., Ont.

GEO. BRIGDEN.

"I want to congratulate you on the successful Christmas ADVOCATE that you sent out this year. It sure is a dandy."

Grey Co., Ont.

THOS. H. BINNIE.

"We appreciate your Anniversary Number of THE FARMER'S ADVOCATE very much. The resume of farm history in Canada for the last half century is in itself worth the subscription."

Stormont Co., Ont.

JOHN H. SHAVER.

"Let me take this opportunity of congratulating THE ADVOCATE on the splendid Christmas Number. You have put out a good many excellent Christmas editions, but I think this, your fiftieth anniversary one, excels all previous efforts."

Dundas Co., Ont.

E. P. BRADT.

"Permit me to congratulate you upon your Christmas Number. It is an artistic, interesting and instructive number."

O. A. C., Guelph.

G. E. DAY.

"The Jubilee issue certainly is a beauty and as excellent in matter as it is beautiful in appearance."

N. Y. State.

EDGAR L. VINCENT.

Satisfy Market Demands.

The feeder seems to have no other alternative than to satisfy market demands. Sometimes these fit in well with his operations, and at others they may not. There is no gainsaying the fact that the young beef animal makes more rapid and cheaper gains than the older steer. Therefore, the market demand for baby beef and butchers' cattle should prove very profitable to the feeder who understands his business well. The same is true of the bacon hog. The market demands a hog weighing from 170 to 225 lbs., and experiments have proven that up to this weight the pig makes a much more rapid gain than when fed to much greater weight. The lamb market is somewhat different. The demand is for a lamb weighing from 75 to 90 lbs., and at the present time most of the good lambs produced

are too heavy and the feeder does not care to sacrifice size, constitution and substance in his sheep in order to satisfy the market. According to the butchers, he has the alternative of marketing his lambs at an earlier age, but there is a danger that they would not be finished and would not prove as profitable as the heavier lamb. The demand for beef is best met in the well-bred, smoothly-finished animal weighing from 900 to 1050 lbs. The feeder of beef should recognize this fact in all his operations, plan to finish the cattle and put them on the market fat at this weight. Packing houses do not want the big, rough (as one man terms it), "dairy-bred-steer," and they will not pay the best prices for heavy cattle of the beef breed which are old, tallowy, and do not carry a high quality of meat as do the young animals. It is well that all breeders should familiarize themselves with market demands, and plan, as far as possible, to meet them. There is no use of placing on the market stock which is not in demand and for which a lower price per pound must be accepted, particularly when the younger and more suitable animal can be fed at greater profit.

Applying Science to the Farm.

For many years, even from the days of Xenophon, earnest men have labored to apply science to farming, and no doubt much good has been accomplished. But when we read a statement by one of our leading agriculturists that "not one farmer in 10,000 knows as much about horses as Xenophon did," and the statement is allowed to go without challenge, and when we know that this old Greek farmer was writing articles on animal husbandry and probably speaking at farmers' institutes over 22 centuries ago, there is, it would seem, ample reason to pause and wonder whether we have used the right system of applying science to agriculture, even in these latter days when the necessity for its application is generally conceded, and when so much is heard of the gospel of the new agriculture. As a matter of fact, much that has of late years been hailed as new in theory and practice is simply old material that has undergone rejuvenation, but that is not the point most worthy of consideration. In this article the emphasis is to be placed upon the first word of the subject, not upon the second. How can we best apply science to farming?

Let us repeat that science in agriculture is not as new as many suppose or wish us to suppose. Many of the old writers, so dear to the hearts of the exponents of present-day culture, wrote learned articles about farming, and unlike most of the agricultural scribes of the present day, they practiced farming as well. So from the days of Xenophon, Cato and Varro, down to our own day there have not been wanting leaders and teachers in agriculture. It is true that evolution in scientific agricultural research has brought to light many reasons not previously understood; that this evolution has been responsible for modification in farming practices is also true, but the leading principles of field husbandry and animal husbandry were known centuries ago. It is, however, only in very recent years that science in agriculture has begun to receive its deserved recognition. We can not apply science to farming without the consent of the farmer, and that the farmer has not always been in hearty sympathy with the idea will be admitted by many an institute organizer, not yet grey in the service. No doubt there may be more than one good reason given for slow progress in applying science to farming, but in the opinion of the writer one explanation stands out from all others, namely, that until within comparatively recent years all effort was directed toward educating adults when most of these were more or less past redemption. Even when we recognized youth by establishing agricultural colleges, we were not beginning at the right end of the proposition. We cannot apply science to farming without educating in the principles of science and their application, and if we would educate properly we must begin with the child. For the consideration of your earnest readers let us submit the following scheme:—

1. Agriculture in the public schools.
2. Agriculture in the high schools.
3. Secondary schools of agriculture.
4. Advanced institutions of agriculture.

1. It should not be necessary in this day to offer reasons for giving agriculture a place in the public school, but nevertheless the necessity exists, and because of this condition we must give justification for the faith that is in us. Two reasons will suffice. Agricultural education should begin in the public school, because that is the logical place to begin all education. They generally call it Nature study in the lower grades and elementary agriculture in the last two grades, and they may call it almost what they like so long as our educators give it a place commensurate with the importance of our paramount profession. Oh, yes, a girl teacher may not teach much scientific agriculture, but it is not the sum total of agricultural facts taught that counts—it is the trend of mind induced in the pupil. Develop his interest in and his respect for the profession of his father, and when he is older he will not depart from it. In the name of commonsense, then, do not talk as though the young girl teacher were trying to teach agriculture to the whole district. Her business is with the school, and she knows her business much better than most self-constituted critics can teach it to her. Just acquire a smile, and help the girl teacher when she wants a school garden, and you will have had the

privilege of help in the world. schools is the s drift to the cit its proper recog it is not necessa he will be less a toward the br cry is all right a back, unless a them back to s Let us try to h now known or them we can ap

2. If agric it is doubly nec it is advisable tha the recognition there is anothe agricultural sci pupils receive hi many of them of our young t Then we have graduate, so of environment, is the children of t is unfair to bot make fun out of fested by many tion is too seriou a definite cours pupils, and this door laboratory and demonstrati garden practice r hold science. In teacher out to h sympathy that c

3. For vario never enter a hig do not finish Gr will enter a Pr such, the establis provides a great the matter of a offer a fine last these schools the sible, featuring a farm mechanics a attention to Eng science. The peo schools—they wa are past the exper year of operatio for the three sch year, despite well ber advanced to show further mar of this school syste hen's teeth.

4. It is ma speak of advan making a confessio which he has the p attained a prescr course at a school similar standing o Faculty of Agricul year course leadi the whole course b apply science to f this is the younges the spurs are yet thoughts for the sy readers.

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privilege of helping in one of the most responsible works
in the world. Then, too, this agriculture in the public
schools is the surest means to check the much deplored
drift to the cities. When the boy sees farming receive
its proper recognition in his school, when he feels that
it is not necessary to leave the farm to rise in the world,
he will be less apt to join the ranks of those who move
toward the bright lights. This "back to the land"
cry is all right as far as it goes, but not many will come
back, unless a too-prolonged diet of husks may send
them back to see how chances are for the fattened calf.
Let us try to hold the lads, yes, and lasses, too, who are
now known only as public school pupils. Through
them we can apply science to farming.

2. If agriculture is necessary in the public school,
it is doubly necessary in the high school. Not only is
it advisable that the child shall see agriculture receive
the recognition in the curriculum that is its due, but
there is another imperative demand for instruction in
agricultural science in the high school. Most of the
pupils receive high school training under town conditions;
many of them indeed are town-bred as well. Most
of our young teachers begin work in a rural school.
Then we have this condition—the young high school
graduate, so often a girl, after a training in a town
environment, is turned loose in a rural district to teach
the children of those whose profession is farming. This
is unfair to both teacher and children. We are apt to
make fun out of the unfamiliarity with rural life mani-
fested by many of the young teachers, but the condi-
tion is too serious to be treated thus. There should be
a definite course in agriculture for these high school
pupils, and this should be supplemented by an out-
door laboratory course, such as simple experimental
and demonstration plot work, and in addition kitchen
garden practice may be made an integral part of house-
hold science. In this way only can we send the young
teacher out to her responsible duties armed with the
sympathy that comes from understanding.

3. For various reasons many of our country children
never enter a high school, and many of those who enter
do not finish Grade XI. Comparatively few of these
will enter a Provincial College of Agriculture. To
such, the establishment of special schools of agriculture
provides a great boon. Easy of access and lenient in
the matter of admission requirements, these schools
offer a fine last chance for additional education. At
these schools the course should be as practical as possi-
ble, featuring field husbandry, animal husbandry,
farm mechanics and household science, with adequate
attention to English, mathematics and fundamental
science. The people of the country not only need these
schools—they want them. In Alberta these schools
are past the experimental stages, being now in the third
year of operation. For the first year the enrollment
for the three schools was 368 students; for the second
year, despite well-known adverse conditions, the num-
ber advanced to 327; this year the registration will
show further marked increase. In Alberta opponents
of this school system are about as scarce as the proverbial
hen's teeth.

4. It is manifestly impossible for the writer to
speak of advanced agricultural education without
making a confession of the ideals of the institution over
which he has the privilege to preside. Students who have
attained a prescribed standing during the two-year
course at a school of agriculture, or who have received
similar standing elsewhere, are allowed to enter the
Faculty of Agriculture at Edmonton for a further three-
year course leading to the B.S.A. degree in agriculture,
the whole course being five years in the study of how to
apply science to farming. With a full realization that
this is the youngest member of a good family, and that
the spurs are yet to win, we would like to submit a few
thoughts for the sympathetic consideration of interested
readers.

It has been the leading criticism of the agricultural
college that it failed to reach the country at large, that
its chief function was to prepare young men for official
positions of different kinds. Even if this criticism were
just, and we are not ready to grant this, we must recog-
nize the fact that in doing the very work ascribed to it,
the college, while doing a grand service to the country,
was but marking an evolutionary period in its career
in attempting to meet a demand, the supply for which
has been until lately limited. However, we would
like to submit that the time has arrived for a modifica-
tion in the idea of service on the part of the college.
Believing this, it is our ideal to send back to the land
every student who has more than "two by six" of land
to which he may look forward. This will leave a
sufficiency of young men to become teachers of agri-
culture or to fill other official positions. Also we believe
that the measure of the success of a college should lie
in the quality of student graduated rather than in the
number turned out. When we shall be instrumental
in returning a graduate of the right sort to take his
place in an agricultural community, we shall have done
more for that community than if we sent there a dozen
paid to offer expert advice. Critics in the past have
been prone to harp upon isolated cases of failure to make
good on the part of agricultural college graduates who
return to the farm. It is to be feared that the wish
was father to the thought. For one failure we can easily
find many outstanding successes. Failures in the ranks
of the so-called learned professions are by no means rare,
but we rightfully ascribe these to individuality rather
than to training. The right kind of a boy will succeed
in an agricultural college or in a school of law. How-
ever, we must keep the training up to the mark, and the
training in an agricultural college should be essentially
practical. To secure this, certain features must not be
neglected in the light of present day conditions.

(a) The boy should acquire some knowledge of the

principles of pedagogy, of the science of imparting
knowledge to others. This is essentially necessary if
he is to become a teacher of agriculture. It is not
wasted upon the boy who returns to private life, especi-
ally if he has children of his own some day to deal with.
Then, too, he will make a better school trustee than
some we have known in the past.

(b) The boy should have a practical training in
veterinary science as part of his course in animal hus-
bandry. Particularly should he learn by practice the
nature and treatment of diseases in live stock. He
should be able to handle many of the ailments among
the animals on his own farm, or be able to help any
farmer in an emergency by doing things rather than by
giving second-hand information from his college notes.

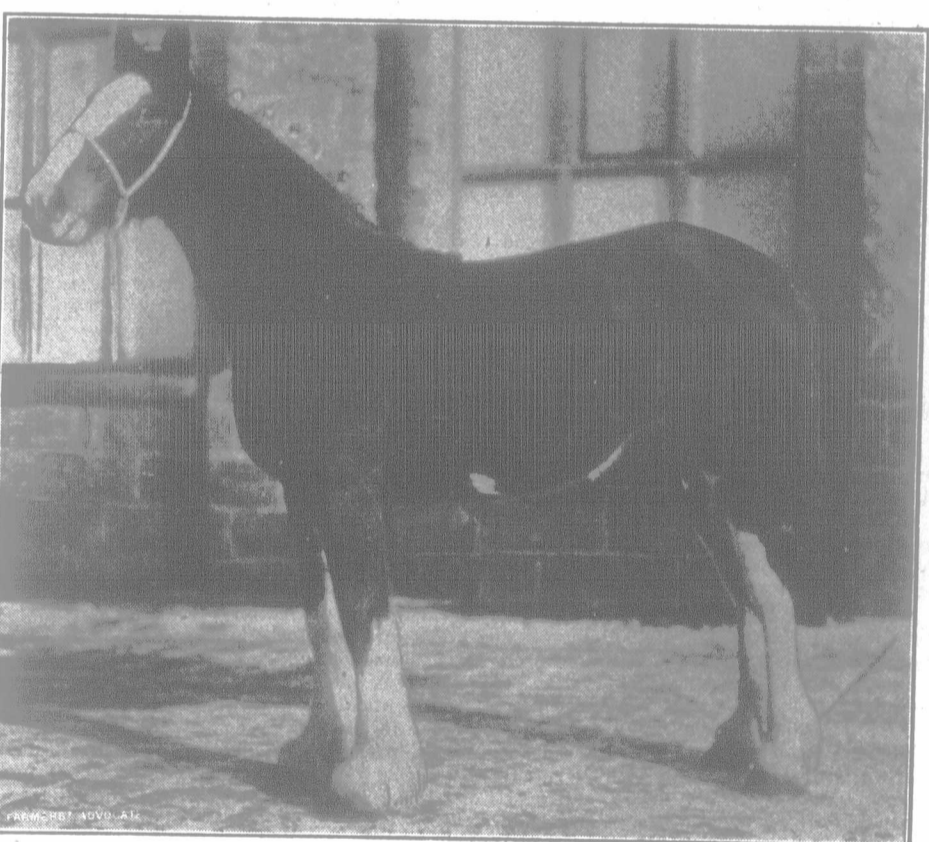
(c) There should be intimate contact with the
experimental work of the college. Most of this is car-
ried on during the summer vacation, but each boy should
co-operate with the station by carrying on certain
practical experiments on his own land. Should this
result in nothing astounding in the realm of research,
it will have served perhaps a greater purpose in bringing
the college into the home and home into the college.
Community effort makes us wondrous kind, and good
feeling radiates as truly as bad, pessimists to the con-
trary notwithstanding.

(d) Practice in surveying is another requisite.
This should be given particularly in connection with
instruction in drainage, irrigation and road making.
There is no reason why the farmer of the future should
not be competent to handle these problems for himself
when the necessity arises.

not put to shame. These men will look after the applica-
tion of science to farming.

This article will have failed in its purpose if it has
not brought out the idea that true agricultural education
will ensure the application of science to farming, and
that true agricultural education must begin with the
child and proceed in a logical order. At the outset it
was stated, perhaps rather bluntly, that most adults
are not susceptible to change. A few of us may have
been fortunate in being able to maintain some ideals
from boyhood days, when a moon shone on every
telegraph pole, but for the most part we, who have
topped the hill and are jogging down the sunset trail,
have our habits of thought and action pretty well fixed.
We enjoy farmers' institutes, short course schools,
demonstration trains, seed fairs and such, because they
brighten us up a bit and give us something to talk about,
but we would hate to admit that the best service per-
formed by these institutions is in the number of lads they
interest and entice away in search of further agricultural
instruction. Yes, it is hard to modify the practice of
adults, but there is one way to reach many of them,
and that is through their children. Many a farmer has
gone against his own judgment to give his boy an op-
portunity to work out an idea perhaps learned at college.
So after all, the hope of the country is in its children.
Let us see that they get as much agricultural education
as time and money will allow. When they are young,
develop their interest in things agricultural, and as they
grow older direct their attention to the many available
sources of information, and when the boy thus trained
grows to manhood he will not hang the agricultural

bulletin or periodical
beside the kitchen win-
dow to use for shaving
paper on Sunday
morning. Let us fos-
ter all things that tend
to interest the boy in
the profession of farm-
ing—interesting books,
school gardens, school
fairs, private owner-
ship of some good live
stock that shall not be
"Johnny's pig and
Daddy's bacon," com-
monsense apportion-
ment of his hours of
labor and recreation—
and we shall reduce
materially the abnor-
mal exodus from coun-
try to city. We are
due for a wonderful ad-
vance in this young
country of ours, when
the cruel war is over,
and we have time and
inclination to devote
ourselves to further
advancement, if we
see to it that we exer-
cise our privilege of
training our youth and
see to it that we turn
out earnest, practical
men and women not in
spite of, but because
of education in agri-
cultural matters—edu-
cation in applying
science to farming.—
[E. A. HOWES, Dean
of the Faculty of Ag-
riculture, University of Al-
berta, in "The Farmer's Ad-
vocate and Home Journal," Winnipeg.]



Heather Moon.
First-prize yearling Clydesdale filly at the Provincial Winter Fair, Gae'ph, 1915.
Exhibited by H. A. Mason, Scarborough, Ont.

(e) Special emphasis should be placed upon animal
husbandry instruction. Mixed farming means returns
through live stock, and there is a wide opportunity for
improvement in the knowledge of breeds and breeding
and of feeds and feeding, not to speak of market require-
ments.

(f) Courses in farm economics are largely in the
process of making, but this much may be said—the boy
should not leave college without commonsense ideas
upon the questions of cost of production, co-operative
production and co-operative marketing, and he should
know some simple method of farm bookkeeping. Farm-
ing is now recognized as a business, and our boys must
understand common business principles.

(g) Aside from the usual courses in good English
there is room for a laboratory course, for want of a better
term. The boy from the college, whether he goes back
to the farm or not, whether he desires it or otherwise,
must become a leader in agricultural discussion. He
must early appear before the most critical audience in
the world, and much depends upon the first impression
he makes. He should then have practice in standing up
and in intelligent and intelligible words, with simple
and straightforward manner, saying what need be said
on any agricultural topic, and in knowing when to sit
down—the sense of this latter requirement is by no means
universal among speakers. Then, too, the boy should
have some course in good agricultural journalism so
that he may well express himself in timely contributions
to our agricultural publications, and thus add years to
the lives of the editors.

When all is said as to what the college can do for
the boy, we must still admit that, in a modified sense,
what we said of agriculture in the public school holds
good for agriculture in the college. "It is not the sum
total of agricultural facts taught that counts, it is the
bent of mind induced." If the college can turn out a
true man, a practical man, a man with a desire for further
knowledge and an appreciation of his place in the world,
the college will turn out a product that the years shall

Nature's Diary.

A. B. KLUGH, M.A.

During recent years botany has undergone an im-
mense change. The older botany was what might be
very appropriately termed a "dry subject," it was
concerned largely with dried plants, the naming and
classifying of them, and a study of the names of parts
of plants. Many students found botany nothing but a
long list of names—a subject which aroused no interest
or enthusiasm, and consequently left it as soon as possible.
The modern botany is entirely different; it is concerned
with the living plant, with its life processes, with its
relations to other plants and to its environment. Thus
the whole aspect of the study has changed—it is now a
live subject. True enough, there are still names to be
learned, but they are no longer presented in long lists,
but introduced when the need for a name is felt. And
this makes a world of difference, for once the need of a
name is felt the remembering of that name is perfectly
easy.

This change in the aspect of botany is mainly due
to the development of that branch of botany known as
ecology. The word ecology is derived from the Greek
"oikos—a home," and may be defined as the study of
plants in relation to their environment. This branch
of botany is so full of interest that everyone interested
in outdoor life should have some knowledge of it. Fur-
ther, it is an extremely practical study, and some of the
results obtained by it have a far-reaching value.

Before we can consider plants in relation to their
environment, we must first consider the environment
carefully. The environment of a plant is made up of
a complex of a great many factors. We may divide
these into three main groups—air factors, soil factors
and biotic (living) factors. The air factors are tempera-

ture, light, humidity, and air currents. The soil factors are water, physical character, chemical character, nutriment, depth, temperature and air. The biotic factors are other plants and animals.

Temperature is of great importance since the various vital processes of plants take place only within definite limits of temperature, and most actively at a certain optimum (best) temperature. Temperature is also of very great indirect importance, since it has a most decided effect upon humidity. One point in connection with temperature which must be strongly emphasized is that the mean annual temperature has little effect upon plant-life, but it is the temperatures which prevail during the period of growth and reproduction which count.

Light plays an important part in many ways. Without light there would be no production of chlorophyll, consequently no making of food from the carbon dioxide of the air and water of the soil by plants, since their power to do so depends upon the action of light upon this green coloring matter. Commencing at a certain minimum intensity of light, which varies with the species, this manufacturing of food increases as the intensity of the light rises, until an optimum is reached. Light that is too strong is injurious in action. The development of plants depends upon the duration as well as the intensity of the light to which they are exposed. Direct light promotes the production of leaves and flowers. The vegetative shapes of plants are greatly influenced by the intensity and direction of the light. Of this forest trees furnish excellent examples. Light, in the first place, determines the shape of the individual tree. The duration of the life of the branches depends partly upon the intensity of the light. The shade cast by the younger branches retards the activity of the leaves of the older branches, and thus renders impossible the normal development of buds and ripening of wood. The branches die off, become brittle and break by reason of their weight or of storms. It is because of this suppression that the central parts of trees and shrubs have so few twigs. A spruce standing in the open is conical and bears branches from its summit to its base, whereas one standing in a dense forest has only a small green crown. Deciduous trees standing in the open have a full ovoid head, but when growing in dense wood have only a small crown with upwardly directed branches.

Atmospheric moisture, or humidity is an important factor, because the relative humidity controls the loss of water from the plant, and anything which is concerned with the amount of water in a plant is particularly vital to it.

Air currents or wind acts as a factor mainly by its evaporating power. It dries the soil and it dries the plants. In a calm atmosphere the air adjacent to plants becomes humid, so that transpiration (loss of water through the stomata, or pores, of the leaf) is checked. By even weak movements of the air that close to the plants is carried away, and fresh, less humid, portions of it come in contact with the plant. Even when the atmosphere is very humid, its uninterrupted renewal will lead to strong transpiration. The stronger the wind and the drier the air, the greater will be the drying action. The force of the wind is far less on the ground than at some distance above it, consequently short plants are much better protected from wind than tall ones. The danger arising from wind is increased when at the same time the soil is cold, thus reducing the activity of the roots. Wind, when long-continued and mainly from one direction, exercises a marked effect upon tree-growth. The trees are low in stature, the trunk is often bent away from the prevailing wind, the shoots are short, irregularly branched and interlaced, many shoots are killed on the windward side and the leaves are smaller than usual. While the mechanical effect of the wind may have some slight influence in producing the effects mentioned above, they are in the main due to its drying action.

In some environments—sand-dunes—the wind exercises a very important indirect effect by moving the substratum in which the plants are growing.

THE HORSE.

High Prices There—No Demand Here.

Canadian horsemen, who cannot dispose of their horses because of lack of market demand, will wonder, when they read our English correspondent's article in the Live Stock Department of this issue, why they cannot sell their horses. In Britain, in 1915, horses have sold for at least \$120 each more than heretofore. Such is the statement of a man familiar with the trade over there. The average for foal sales showed an advance of nearly \$55 per head over similar sales in 1914. Our horsemen will be pleased to know that the British horse breeder is finding ready sale at high prices, but this does not help matters. It is more than likely that the British Government could buy horses at less money in Canada than it is costing them to purchase at home and in neutral countries, but, for some reason, outside buyers have not operated extensively in Canada. Do they not want our horses or do we not want them to get them? There is no doubt about the farmer's wishes in the matter. He is anxious for and deserving of a market for his surplus horses, and if he cannot get it, he rightfully asks why. While marketing commissions and authorities are investigating other marketing problems, it might be as well if they threw a little light on the horse-market situation. And the matter of United States horses going through in bond and free

of duty and the cripples unloaded and dumped on Canada, if such be the case, should be looked into. A little action, or, at least, a straightforward statement would be appreciated by Canadian farmers and horsemen.

Lameness in Horses III.

The examiner, having become satisfied which leg the horse is lame in, must now endeavor to find the seat of its cause. In all cases where doubt exists as to the seat of lameness, it is good practice to remove the shoe and examine the foot carefully; and, if he fails to find anything wrong there, he must endeavor to find out where the lameness is by careful manual examination, assisted by the peculiarity of action, which will be discussed in future articles as the various lamenesses are observed.

Lameness is not of itself a disease, but a symptom of disease. It is an expression of pain or inability, the result of disease, accident or malformation in the limb or limbs in which it is manifested. It may, however, arise from disease apart from the limbs, as from injury to or disease of the spinal cord, disease of the brain, nerves or arteries, and occasionally from disease of the liver. It may exist for a time independent of disease—a mere expression of pain without actual disease, as from a stone caught in the shoe, an ill-fitting shoe, a shoe the nails of which are too tightly clinched, etc., but if these causes of pain and lameness continue for any considerable length of time, disease is sure to follow. Disease without lameness much oftener exists in a limb than lameness without disease. Thus, a horse may have a wound, ulcer, bony deposit, tumor or other diseased condition in a limb and at the same time go sound. Some authorities claim that any impediment in action is lameness, while others claim that lameness cannot exist without pain, and that where disease which interferes with action but does not cause pain exists, it causes stiffness, but not lameness. For example, the fracture of a bone or inflammatory action in a joint may result in ankylosis (the union of two or more bones into one big bony deposit) of two or more bones of the joint, when, where inflammatory action has ceased, causing no pain, but interfering more or less with action causing the horse to go stiff with the affected limb. Again, complete dislocation of the patella (stifle bone) causes the animal no pain, but produces complete inability to use the limb.

Pain may be generally said to be the cause of lameness. The patient feels the pain, either when he moves the limb or when he bears weight or presses upon it. During progression the patient endeavors to avoid throwing weight upon the lame leg by treading lightly or stepping short, and by removing weight as far from the seat of pain as possible. Not only by using the lame limb in a manner calculated for this purpose, as by treading on the heels when the pain is in the toe, and vice versa, but also throwing as little weight as possible on the lame limb.

Weakness of the limbs, either congenital or acquired, may cause lameness, and inability to perform the functions of progression properly. For example, want of development of muscular fibre in the extensor muscles of the forearm, sometimes seen in foals, causes the animal to stand and walk upon the front part of the fetlock joint, the heel of the foot and the fetlock pad being thus brought into close contact, due to the flexor muscles being well developed and having little antagonistic power opposed to them; the fetlock joint is flexed and the power of progression greatly interfered with. Again, a horse may be lame by access of tonicity in the muscles of a limb, accompanied by great pain, as in muscular cramp, which renders him very lame for a time.

For the detection of the lame limb, the following general rules should be observed. When the foot of the lame limb comes in contact with the ground during progression, the patient suddenly elevates that side of the body and drops the other side. If the lameness be in the fore limb, the head, as well as the fore part of the body, is raised from the lame and dropped upon the sound limb. This is called "nodding," hence the animal nods when the sound limb touches the ground. If the lameness be in a hind limb, the quarter of the lame side will be elevated, and that of the sound side thrown forwards and downwards with a jerking motion, the head being held moderately steady, unless the pain be excessive, in which case it may be jerked in agony.

The symptoms indicating the seat of lameness are of two kinds: (1) Those manifested during action, and (2) those discoverable by an examination while the animal is at rest. In some cases the latter alone are sufficient to indicate the seat and nature of the disease, but in such cases the lameness must be well marked, manifested by "pointing," standing with the lame leg flexed or elevated from the ground, with the healthy feet placed as much under the body as possible in order to bear its weight.

In most cases, however, it is necessary to cause the patient to perform some movement; and experience teaches us that a slow, easy trot on hard ground, with a free head, is the best pace. A horse may walk lame, but in most cases the peculiar characteristics of the lameness is best shown at the gait mentioned. There are cases of lameness, however, as in slight splint lameness, where it is necessary to urge the patient to a sharp trot before any deviation from the normal gait can be noticed.

WHIP.

Can you manufacture a reasonable excuse for using a scrub sire?

Making a Start to Improve the Market.

The Ontario Horse Breeders' Association held a meeting last Tuesday in Toronto to discuss some matters pertaining to the purchase of army horses in Canada and the dumping of rejected army horses in this province, which horses had been shipped through from the United States. John Bright, Live Stock Commissioner, denied the rumors that horses from the other side had been dumped here, stating that of the 30,000 animals purchased in Canada and of the thousands passing through from the United States only 300 rejects have been sold, and all of these were given veterinary inspection before being disposed of. Mr. Bright is also reported as stating on the authority of the Premier that the Government had never ceased to buy horses in Canada, and advised Ontario breeders not to dispose of their good mares, believing that all the horses in Canada would be needed before the end of this war. Because of the dissatisfaction among farmers and horse breeders over the present situation a committee composed of John Boag, Wm. Smith and Robt. Graham was appointed to discuss with the Minister of Agriculture the question of buying remounts for the Dominion of Canada.

We are glad to know that a committee has been appointed to look into the matter, for there certainly is dissatisfaction, and not without reason. We attended a sale on the same day that this meeting was called in Toronto, and at that sale a good team of heavy draft work horses were put up, with a large crowd present, and never a bid was forthcoming. The men at this sale paid fair prices for cattle, but would not bid on horses, and the horses went back to their stalls without anyone bidding even as much as \$25 for them. Now, these were not cull horses, for a little more than a year ago their owner refused \$300 for one of the team. This is only typical of horse-market conditions the province over, and when we know that horses are scarce in Britain and are commanding unprecedentedly high prices, and when the horse breeder reads that the Allied Governments have spent millions of dollars for horses in the United States while Canada's horses are unsaleable, it is time someone looked into the cause of the trouble. We hope that the committee is able to bring enough pressure to bear upon the powers that be that Canada may at least have a part of the trade now being carried on for army horses. If the Government has never stopped buying, they have so nearly done so on many occasions as not to be an important factor in the horse-market conditions of the country.

Mr. Boag, Mr. Graham and Mr. Smith have an important work in hand, and we know them well enough to state that if they are given any opportunity to do something for the horse breeders of Canada, they will do it, and we have hopes that horse-market conditions in the very near future will greatly improve. There is no use saying that everything has been done that could be done for the horse markets of Canada. If it had, there would be no dissatisfaction at the present time, and the bulk of this country's surplus horses would have been disposed of for army purposes.

LIVE STOCK.

Raising Orphan Pigs.

Editor THE FARMER'S ADVOCATE:

I am going to write you of my experience in raising a whole family of pigs. Twelve hours after giving birth to a litter of ten fine pigs our sow died suddenly and as it seemed a shame to allow such a profitable lot of youngsters to die, I determined to do my best to save them. I let them get good and hungry before experimenting with them; then, taking each separately, I poured a little warm milk down their throats. This seemed to satisfy them, but in a little while they were hungry again. For their feed I took about three parts milk and one part water and sweetened this slightly with a little brown sugar. I rigged up two boxes with clean, dry bedding in each, and put them beside a stove which we had in an outside kitchen and put the pigs in one of these. Every 1½ hours, night and day, I fed them, taking one at a time and, as it was fed, putting it in the other box. I had a small round dish, and the little fellows would keep their noses pressed against the side of the dish and would soon drink greedily. After getting them in the second box, the first one was cleaned out and dry bedding put in ready for their next feed. I kept this up for 10 days, and at the end of that time I added a little well-cooked porridge made from corn meal and rolled oats in equal parts. Then I gradually lengthened the time between feeds from 1½ hours to 3 hours, and by this time they were thriving and living in a pen of their own and drinking from a trough as pig-like. I then left off feeding them at night, but would feed them the last thing before going to bed.

A nicer family of pigs never lived. They knew me and came at the slightest call, and would follow me everywhere if allowed. To my delight they grew and grew, getting greedier and greedier until I knew my experiment was proving a success. Between six and eight weeks they were growing so nicely that I found we could feed them any sort of pig feed. My troubles were over, and at five months my porkers averaged from 125 to 150 pounds each.

I have often seen enquiries about raising young pigs by hand, and a trust this may prove helpful to any one left with such a lot of orphans on their hands.

Algoma District.

Mrs. M. WARAM.

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Breeders' Association held a meeting in Toronto to discuss some matters of importance to army horses in Canada. The stock commissioner, denied from the other side had been of the 30,000 animals purchased by 300 rejects have been sold, after veterinary inspection before the Premier that the Government buy horses in Canada, and not to dispose of their good horses in Canada would of this war. Because of the horse and horse breeders over a committee composed of John G. Graham was appointed as the question of Agriculture the question of Dominion of Canada.

That a committee has been formed for this meeting was called in a good team of heavy draft horses with a large crowd present, and coming. The men at this meeting, but would not bid on back to their stalls without such as \$25 for them. Now, for a little more than a year ago for one of the team. This market conditions the province of horses are scarce in Britain and the Allied Government of dollars for horses in the market are unsaleable, it is to the cause of the trouble. The Government is able to bring enough horses that be that Canada the trade now being carried the Government has never so nearly done so on many important factor in the horse industry.

Mr. and Mrs. Smith have an opportunity to do breeders of Canada, they will that horse-market conditions greatly improve. There is a great chance that could be taken at the present time, and the surplus horses would be used for many purposes.

STOCK.

Phan Pigs.

STATE:
of my experience in raising twelve hours after giving our sow died suddenly. I allow such a profitable lot to do my best to save and hungry before experimenting each separately, I down their throats. This in a little while they were and I took about three parts and sweetened this slightly and rigged up two boxes with , and put them beside a outside kitchen and put the 1 1/2 hours, night and day, a time and, as it was fed, I had a small round dish, I keep their noses pressed and would soon drink greedily. Second box, the first one was put in ready for their next 0 days, and at the end of well-cooked porridge made rats in equal parts. Then I ne between feeds from 1 1/2 is time they were thriving own and drinking from a it off feeding them at night, ever living. They knew me call, and would follow me my delight they grew and greedier until I knew my success. Between six and ing so nicely that I found of pig feed. My troubles with my porkers averaged inquiries about raising young may prove helpful to any phans on their hands.
MRS. M. WARAM.

Live Stock Business in Britain in 1915

EDITOR OF THE FARMER'S ADVOCATE:

The Shire horse in England is undoubtedly going stronger to-day than ever before. The demand caused by the war has been remarkably helpful. During the present year horses have been making good prices, at least \$120 each more than heretofore. At Peterborough and Wrexham the average for foals has worked out at an advance of nearly \$55 per head over similar sales there last year.

There is a growing desire making itself very manifest among English Hackney breeders at the moment that the time has now come when the breed might receive Government aid, specially so in the light of the undeniable fact that the Hackney has provided the British Army with a large quota of its utility horses, either pure-bred or bred on Hackney lines, which have proved themselves abundantly useful for many services, either in the field or at the bases. To-day the Hackney is the only breed that does not receive the British Government's assistance. Those days when it did flourish amazingly with the aid of "the private enterprise" of exceedingly rich men have gone; the breed has completely changed its ground, and now needs all the assistance the Government can give it in the way of subsidising classes for stallions (and mares) considered of the type which will produce and throw gunners' and officers' cobs, sans flashiness of action, but examples of the virile type of Hackney which once did exist, possessed of bone, substance and that indefinable something called quality. The Hackney undoubtedly is the ride-and-drive breed, pure and simple. It made its reputation as such in the days of long ago; it has stood near unto losing it in present times, because the ride abilities of the breed were neglected to catch the straw of fashion which has floated on the tide of ring-craft and driving.

The Suffolk horse is thrusting ahead well beyond the borders of his own county. As an indication that the newly-established studs in Norfolk and counties more distant from Suffolk are likely to be well founded, it need only be stated that stallions and mares acquired this year by the distant buyers were invariably the best obtainable.

There is nothing wrong with pony-breeding in Britain to-day. The encouragement the Government has given to the small horse of England has done a power of good in a little time. In those obscure places of the country where the many old-time native breeds were fast running to seed, something very valuable has been achieved by the Government's help, timely as it was to stir up fresh enthusiasm among those people whose ways of raising their small but useful animals had certainly grown haphazard.

Shorthorn transactions during the memorable year of 1915 have been almost entirely of a business character. The breeding of pure-bred stock has many attractions, not the least of them being the pleasure and interest it gives to men of money and leisure apart from any profit that may accrue. In 1915, however, with so much else at stake, many have not had the time to give to their herds and have used their energy in the service of the country. This, combined with the heavy financial calls entailed by the war, has had its effect upon the value of high-grade pedigree stock, which before the war was realizing very high prices. On the other hand, the enhanced value of ordinary stock, owing chiefly to the increased consumption of meat, has raised the price of the lower grades, consequently the all-round results have fully maintained and, in fact, are well above the level of the last few years. This levelling of prices has induced the more enterprising farmers to start pure-bred herds, and at many of the sales the number of fresh buyers has been quite remarkable. Once more Shorthorn breeders in England suffered in comparison with those in Scotland and Ireland owing to the Argentine ports being closed against them during the greater part of the year. All told, in Great Britain during 1915, sixty-nine sales of pure-bred stock were held, and 5,957 head sold for \$1,280,662.06, or a general average of \$214.97, the highest for years past.

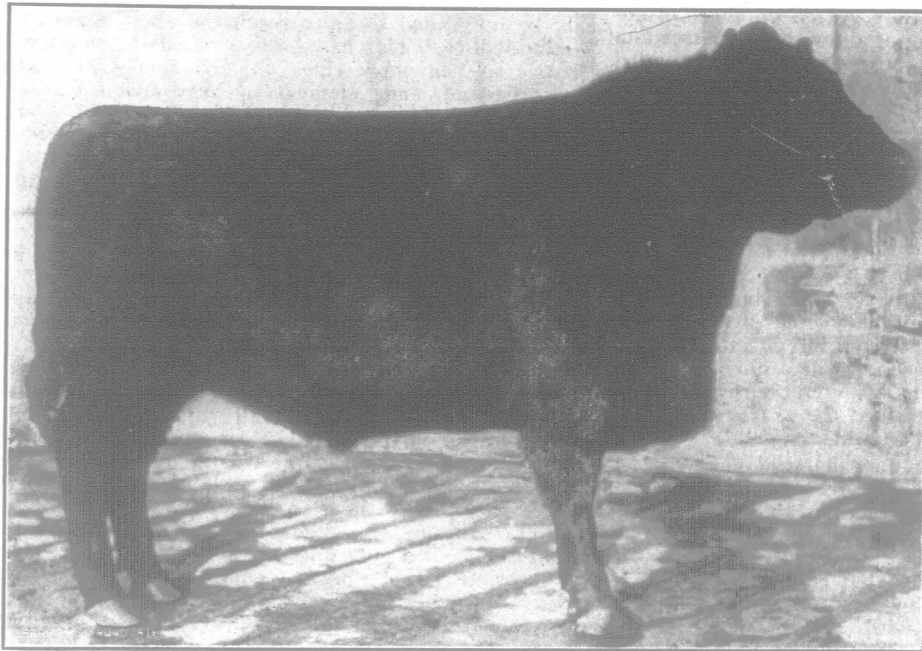
During the twelve months the exportation certificates for Hereford cattle issued were 278—i.e., Uruguay 76, U.S.A. 70, South America 66, South Africa 46, Australia 8, Brazil 5, British East Africa 4, Chili 2, and Rhodesia 1. The demand for export continues good, especially in Uruguay, where Herefords are gaining in favor more and more. The United States of America have been good customers.

Ayrshire cattle have been suffering owing to the all but complete stoppage of the export trade. Yet at home the Ayrshire herds are being increased in number and size in a satisfactory manner, and breeders are paying strict attention to the entering of their cattle in the herd-book and the compiling of milk records of their cows.

With the high prices that have ruled during the year for beef cattle the Aberdeen-Angus has flourished. In all those "lean" years which have passed since the boom of the early eighties, when Canada and the United States were being stocked with representatives of this beef breed, the fortunes of Aberdeen-Angus cattle have never just sunk to a low ebb—a fact which is wholly attributable to the record the breed has established in the matter of meat production. Its employment for crossing purposes has met with striking success, and thus the ordinary market values have been kept on a commercial basis. With the enhanced price of meat has come the increased patronage of the Aberdeen-Angus breed, and at the spring sales bulls of the breed brought very high prices, even in cases where they were bought

for crossing purposes and the raising of beef cattle. This has been the outstanding feature of the year. A number of new herds, it is true, have been formed both in England and Ireland, and one or two in Scotland. Only seventy-three animals have been officially certificated for export during 1915, and South Africa was the biggest buyer.

Highland cattle go ahead like wildfire. They have been selling at fine prices. Those paid for growthy sorts, privately and in the store stock rings, tend to encourage a reasonable amount of size, and slowly but surely make for improved wintering. The Scottish Board of Agriculture is doing excellent work in placing naturally well-bred and unpanpered bulls at convenient centres for the use of small tenants, and useful hints on the keeping and handling of the stock are informally "passed along" by the practica officia of the Board.



Smiler.

Champion Aberdeen-Angus steer at the Provincial Winter Fair, Guelph, 1915. Exhibited by John Brown & Sons, Galt, Ont.

The revival in the demand for good sheep, both for English flocks and for exportation, has been very apparent among the Lincoln and Longwool breeds, which have been sold at much higher prices, the foreign trade having considerably increased. The averages at the ram sales were decidedly higher, and there is every prospect of the continuance of a good demand now that mutton and wool sell so readily.

The export certificates granted from October 1st, 1914, to November 30th, 1915, comprised the following: 3 rams and 50 ewes to New South Wales; 1 ram and 2 ewes to Colombia; 3 rams to France; 1 ram to Chili; 1 ram to Ireland; 6 rams and 10 ewes to South Africa; 91 rams to South America; 197 rams and 7 ewes to the Argentine; 300 rams and 33 ewes to Monte Video; 581 rams and 15 ewes to Buenos Ayres; 99 rams to Uruguay, and 4 rams and 5 ewes to U. S. A. Total, 112 ewes and 1,277 rams. In 1914 the total was 877.



The Drummond Cup Winners.

The pen of Southdown lambs which won the Drummond Cup for Robt. McEwen, Byron, Ont., at the Guelph Winter Fair. This is the third time in succession that this breeder has won this cup.

The export trade in sheep generally has suffered a considerable setback in consequence of the war, as the United States and Canada have taken few sheep this season, and the other importing countries have not made good the falling away of the before-mentioned markets. Suffolks have been making new friends in all the colonies.

Hampshire Downs have met with a fine "internal" trade, and the Wensleydale is being much sought after for crosses. The Welsh and Border-Welsh sheep continue to sell freely. The Border-Leicester breed is spreading through Northern England very quickly.

During the year pigs have been in great demand, and values for all good specimens have been very high. Bacon has been realizing prices which consumers have found to be almost prohibitory, and hams and pork

have also sold well. Unfortunately, for producers, the prices of feeding stuffs have also been very dear, so that the cost of fattening has reduced the margin of profits. The increase in the number of pigs reported in 1914 was not continued; on the contrary, there was a substantial diminution. As regards pure-bred pigs, exports were less than usual owing to the disturbances caused in many ways by the war.
Surrey, England.

G. T. BURROWS.

A Bright Outlook.

The official estimate of the Canadian wheat crop for 1915 contains an item to the effect that 10 per cent. of the production will not be saleable for milling purposes. That quantity comes out as a result of the cleaning process to which the wheat must be subjected. What will be done with the discarded wheat or through what channels will it be marketed? The prairie provinces will, of course, be in possession of the greater

part of the feed wheat, for they produce the major part of the millable wheat crop. The same part of Canada this year produced enormous quantities of the coarse grains, for which they can find a ready market if they wish to sell, which, of course, the majority of them do. However, there are a great number of Western farmers who have begun to look ahead and fortify themselves against just such misfortunes as have overtaken them in the past. There have been seasons when the crop became injured through untimely frosts, and had they been equipped with a fair amount of live stock, they could have precluded the possibility of any considerable loss. Many farmers in favorable circumstances, taking advantage of the ill-

luck of their neighbors, have purchased their frosted wheat and fed it with considerable profit. There are those who have had their crops frosted seven years out of nine, and one pioneer who arrived in Manitoba in 1883 recently related how after seven reverses he gave up the exclusive growing of wheat and purchased a few cows, a few breeding sows and a pair of brood mares. From that time he always had something to sell.

Circumstances of the past and present, and prophetic visions into the future all point to an awakening in Western Canada this year and next and to an exodus towards live-stock farming. There is now the money wherewith to commence the enterprise and there is sufficient live stock in the West to prove conclusively that the principle is outstandingly correct. In addition to this, it will be easy for the farmer to conserve and store about his place ample fodder and grain to nourish his foundation stock in proper condition. Unless fate

punishes the prairie farmer very relentlessly next season he can expect to produce adequate roughage and coarse grains for the winter of 1916-17. At no time in the history of the country has the outlook been so bright for a substantial business in sheep and cattle between breeders and those departing from the unwise system of exclusive grain farming. Raisers of hogs in the West were disappointed in the fall of 1914, but conditions in Canada and Europe at the present time all point to a market that will prevent a repetition of the unfavorable circumstances that discouraged the Westerner one year ago. Feed and capital are great promoters of the live-stock industry. In these, Western Canada is particularly blessed this season. May it encourage a movement for better farming. We believe it will.

Exercise is essential to success with all live stock breeding animals. You cannot expect big, strong, vigorous lambs, calves, colts or pigs if you confine their mothers during the pregnant period and prohibit exercise. A few hours in the yard each day will greatly increase the vigor and general health of both dam and offspring when it comes.

Care of In-lamb Ewes.

The good shepherd takes care of his flock in winter as well as at weaning time. The little extras, the additional attention, and the proper accommodations mean more and stronger lambs. Simply wintering the ewes and "pushing" them about two or three weeks before lambing is not a good practice, for the lambs, that next summer will be frolicking about, are now being developed. Their constitutions and ability to survive hardships are determined, to a large extent, by the condition of the dams which in the spring will give them birth. Exercise and liberal, commonsense rations during January, February and March may result in a 10-per-cent larger crop, which on the whole will be a hardier lot.

To answer the question—What and how to feed? Simply sit down and consider what sheep like and what the natural conditions were which surrounded the early history of the woolled tribe. True, all classes of live stock become modified and altered somewhat in consequence of captivity at the hands of man, but there lingers still that in-born tendency of love of range, and freedom to cater to their own desires. Sheep naturally took considerable exercise; they grazed on the hillsides and went far afield. We can not allow them the freedom of the farm, but a form of exercise can be provided that will keep them physically fit and healthy. Have the yard, if possible, where it will not drift, and place the feed trough at the far end of the run. This will occasion more steps for the shepherd, but the flock will go back and forth to and from the trough even when there is nothing in it, and thus take exercise when they would otherwise be standing or lying in or near the pen.

Among the extras which it is well to provide may be counted sulphur and salt. A small box nailed to the wall inside the pen will be visited often and the conditioner will have a beneficial effect. Water, too, is necessary. Sheep will quench their thirst with snow, but water is preferable, and a small container in the pen, replenished daily, is a chore, the time required for which will be well repaid.

Coming to rations, it may be said that almost anything around the barn and granary can be fed, but there is a certain class of fodder and grain that is preferable. In roughage good clover hay stands supreme on most farms. Pea straw, threshed or unthreshed, is good indeed, but that commodity is not so common as formerly. Bean straw is often available, and one feed per day, with good clover hay, is quite in keeping with good sheep management. Alfalfa hay can be considered on a par with clover if care be taken at the beginning not to feed it too liberally. As succulent roughage, turnips rank high. Some sheepmen have spoken disparagingly of them, believing that weak lambs result from the use of roots. However, good shepherds claim that there is positively no danger if the ewes are allowed a reasonable amount of exercise. Three to four pounds of roots per head per day are recommended as a fair amount to feed. Relative to silage, there still exists some doubt as to its importance in the sheep fold. Speaking at Guelph, at the time of the recent Winter Fair, one experienced shepherd said he would advise the use of silage in careful quantities, while another breeder, feeder and dealer in pure-bred and high-class sheep declared that he entertained no fears of it whatever. Any misfortunes resulting from the feeding of silage have probably been due to the quality of the product. Immature and washy or moldy silage is not suitable for horses or sheep, and should not be offered to them. The proper quality of silage can be fed to almost any class of live stock with good results. If no roots are available, one-half pound of oats to each ewe per day will keep them in a thrifty condition. Without clover hay, and even along with it at times, a little bran mixed with the oats will help to keep the flock in better condition than will all dry fodder and grain. With roots or silage no bran should be necessary. Some shepherds feel that they could not get along without a mixture of oats, bran and oilmeal for the flock of pregnant ewes, and it is an ideal mixture, but it should be possible with clover hay, roots or silage and a little grain to winter a flock very nicely without resorting to the use of commercial feeds until lambing time.

It should be remembered that each in-lamb ewe, besides maintaining herself and producing a fleece, is developing offspring. Furthermore, at weaning time there is an exceptional drain upon her system. In order to successfully undergo parturition and nourish her lambs properly she must be built up during her pregnancy. The idea of just carrying the flock along until a couple of weeks prior to lambing and then "piling it on," is not common with successful shepherds; they endeavor to keep the breeding ewes in good fit all the time. Trouble, on the other hand, is prevalent at time of parturition with highly-conditioned ewes. There is a happy medium that must be striven for, in which state the individuals are thrifty, healthy and in good condition, but not over-conditioned. Avoid damp, basement pens. A cheap, dry shelter that will stop drafts and has light, and what may be converted into a large opening to the south, is most suitable. Preclude the possibility of crowding or jamming by providing a large doorway. Small, narrow doorways are an abomination. Handle the flock carefully and prevent undue fright and worrying. Don't allow the flock to roam the pasture fields during a thaw in winter; it will make them discontented, and what they gain by a few days' grazing will subsequently be lost. Litter a corner of the run as a place for them to lie down out of doors. It is thought that goitre and other troubles arise from chills contracted from lying in snow

banks or exposed positions. Handle the flock carefully; they will well repay the trouble.

Where is the Limit in Up-Grading.

Editor THE FARMER'S ADVOCATE:

Up-grading in the sense in which it is used here means the improvement of common or inferior stock by breeding for successive generations from sires of one and the same pure breed. The great value of such up-grading is generally acknowledged. This being so, the question naturally arises: is there any point at which up-grading may stop? In other words, can up-grading be made so complete that the animals so up-graded will measure up to the standard of pure-bred animals of the breed from which the sires are chosen? If it cannot, where is the limit to improvement in up-grading? Where does it stop? If, on the other hand, they can be so improved that they become equal in individuality, in performance and in transmitting power to the average of the pure breed from which the sires have been chosen, why should they not be admitted to record?

It will generally be conceded that animals may readily be up-graded so as to reach the above standard in individuality. This has been evidenced in many a battle in the show rings. It is a fact that animals possessed of some element of alien blood win more frequently in fat stock contests than pure bred. Why should that be? Is it not that alien blood frequently, though not always, brings with it renovating power? It is also a fact that grade cows well up-graded will often prove more valuable in the dairy than pure bred. Statistics can be quoted to show this; hence it must be conceded that they may be so improved as to at least equal pure bred in performance. But can they be made to equal pure bred, in certainty of transmission? Not so readily must, in all fairness, be the answer to this question. Experience and observation prove this. But will sires from cattle that have been up-graded for several generations prove impressive in any instances? It must be conceded that they will, for the originators of several of our pure breeds had at one period no other material to work with. But because of the less certainty of transmission sought from well up-graded sires, the rules that admit them to registration should be very strict. All that has been said thus far tends to show that the known principles of breeding are such that it is possible to so improve common stocks that they reach a point when they are virtually the equal of the animals from which the sires used in up-grading have been chosen. Why, then, should they be debarred from registry?

While I contend that no known principle of breeding can legitimately be quoted to show that improved grades should never be regarded as pure, I am ready to concede that it may not be expedient in some instances to admit improved grades to registry. The necessity for it may not be sustained by outstanding reasons. There are other instances I contend when it is expedient. I will cite one in which I contend the necessity, for it is most pressing. The reference is to Shorthorn cattle, both in the United States and Canada. At one time the breed was noted for its dual qualities. This was true of the Shorthorns that were imported during the first decades in which they were imported. These dual qualities have in a great measure been lost in the pure herds of the breed. This has resulted from breeding them in nearly all instances for beef only. Of all the pure Shorthorns in Canada and the United States at the present time, and they probably number one to two hundred thousand, can milk records be shown for more than one thousand of these, both in the United States and Canada? Now the cry has gone out for milking Shorthorns. It is being echoed throughout all the land. How is this demand to be satisfied? If only from animals now recorded and their progeny, will it not call for at least half a generation to pass before the demand will be met?

Surely there is a more speedy way! What is it? It is by so improving grade Shorthorns that have been milked for generations that in time they can be recorded. These are even now overwhelmingly in the majority on farms in both countries. Their milking properties have not been lost. They may have been impaired through the use of beef bulls, but they are not lost. Improve these by judicious breeding, encourage farmers to so improve them that they can in time be recorded as pure. This will prove a short cut to the rapid multiplication of milking Shorthorns.

With this object in view an organization has been formed in the United States known as "The American Milking Shorthorn Association." It was organized in St. Paul last September. Its main object, in a word, is to restore the milking properties of Shorthorns and to do it speedily. To that end it has adopted a plan that encourages the improvement of grades with a view to admitting them to registry when sufficiently up-graded. This organization will admit to registry Shorthorns that are now recorded in the English, Canadian and American Records, but with the proviso that the heifers so admitted must have produced not less than 4500 pounds of milk with the first lactation, and not less than 6000 pounds of milk by cows in the four-year-old form. In other words, this organization, in the absence of evidence that it is really a milking Shorthorn, will not admit it to record. The fact that it is recorded carries with it the guaranty that it is a milking Shorthorn. Registration in the Canadian Shorthorn herd book does not furnish such a guaranty; such registration is based on pedigree only. The same is true of registration in the American and English herd books.

Such being the case, how is a man to be assured

that an animal recorded in any one of these is really a milking Shorthorn. In the few instances relatively in which milk records are kept by these associations, he has such a guaranty, but what are these few among so many? To the writer it appears about as wise to try and mix water and oil as to record beef and milking Shorthorns in the one organization. To take such a stand may appear to many as indicative of unblushing cheek, but I take it nevertheless. I can't see why the registration of milking Shorthorns that carries with it a guaranty that they are milking Shorthorns is not vastly superior to the registration that professes to record milking Shorthorns without furnishing the evidence that they are.

The plank in our platform that admits of up-grading with certain safeguards is the one that provokes the most severe criticism. Many of the Animal Husbandry men in our colleges are opposed to it. Can they furnish a single reason that is valid why it should not be done on the lines outlined above? If they can, I would like to know what it is. The only reason that I have heard advanced so far, is that it will lead to a lowering of the standard of individuality. How can that be in this instance, when the females must show not less than four pure crosses in succession, when they must measure up to a certain standard in weight, and when they must pass inspection to be admitted? How can these safeguards result in lowering the standard? Moreover, it is required that the up-grading shall begin on a grade Shorthorn foundation. Is there not both reason and commonsense in such up-grading?

Of course, at the present time, nearly all the breeders of pure-bred stock oppose the idea of improving animals so that they can be recorded. It is pleasant and may stand in the ranks of the majority. But majorities sometimes dwindle and minorities increase. Not many years ago it was generally regarded as rank heresy to claim that there was such a thing as a dual purpose cow. The man who had the courage to say there was, was showered with shot and shell. How many are there to-day who dare to say that dual cows can't be bred? Let this furnish a cue to the teachers of animal husbandry that the measure of the commonness with which an idea is held is not always the measure of its correctness.

U. S.

THOMAS SHAW.

Every Farmer His Own Salesman.

The live stock shipping associations, common in Minnesota and Wisconsin, are co-operative institutions of unusual merit. They substitute for the old, local buyer system, a system of handling stock that results in an actual saving in necessary expenses amounting to forty or fifty dollars a carload. This saving is entirely outside of any profits that the local buyer might make. It is quite impossible for a local buyer to compete with a shipping association.

There are approximately 200 of these associations in Minnesota, and so far as we know, says A. D. Wilson, director of the extension division of the Minnesota college of agriculture, not one has failed. The organization is exceedingly simple, as no capital stock is sold and none is needed. It represents simply a mutual agreement by a group of farmers to ship their stock together, and by this means each farmer, regardless of the amount of stock handled, is enabled to ship to a central market at carload rates and to get exactly what his stock brings on the market less the cost for freight, yardage, commission, etc. In other words, a man can sell one hog to just as good advantage as he can a carload.

The agricultural extension division of the University of Minnesota believes that every hoof grown in Minnesota should be marketed by its owner. This may be done through shipping associations, and it is the hope of the division that every shipping point in the state will soon have such an association, and in this way take a safe step toward improvement of live-stock marketing. Several farmers' clubs have perfected shipping associations.

The Boar in Winter.

There is a right and a wrong way to handle the stock boar in winter. The incorrect way is to shut him up in close quarters inside and feed sparingly. The proper method is to get the boar outside, force him to move about and feed him liberally. Confinement is injurious to the male, and he is an important part of the herd, for excessive service, underfeeding or improper accommodations will surely result in loss of vigor and smaller and weaker litters. A large yard of any kind or a large barnyard is suitable. Construct a portable pen or put up a shelter that is dry and will break the winds. In these quarters put a liberal supply of litter, and the boar will do very well. At "Weldwood" the boar and three brood sows have been wintering in the barnyard, which is sufficiently large to give them ample exercise, and they take it of their own accord. Their sleeping quarters are not elaborate. Where practicable have the feed trough at some distance from the pen, and if the intervening distance becomes icy, litter the way with straw horse manure. This, of course, becomes necessary only when the animal is loath to move about.

Do not winter the boar too economically. It is not necessary to keep him very thin, nor is it wise to fatten him, but a good supply of flesh put on under outside conditions, with plenty of exercise, will maintain the sire in the most suitable condition for the next breeding season. The size and character of the litter will depend to a considerable extent upon the condition and vigor of the boar, and any extra care and attention

given the sire in way will be reew quality of the off boar, but perhaps the idle season. middlings or bran it, for corn by it Ground oats and meal ration. In for the swine, and quantity of them. constipation, and Alfalfa and clover or cut and steam Soaked or steepe roots or the latt possible to feed a with the meal ex quantity of meal himself. During fed liberally, but than he will clea the idle months condition of the an

Theory ar

EDITOR THE FARM

Of late years about the PRINCE the same period, about the PRAC been laid upon th composition and d etc.; and much v is now available. valuable is this k other questions of operations than th ment? Having se "other questions," remarks upon the my own person are intended to be as the whole subje

In the first pl can be a good f acquainted with t individual animals capacities, and unl these individual make the best use can only be gaine be written concern

In the second to the faeces of ea digestion and assis observation, but no faces in the norma condition indicates or heavy feeding o mild chronic diarrh and which will pro unchecked. I have produce this trouble ness. The only cu Cut down the grain the use of silage; and, when the tro very cautiously. I individual attention be utilized to advan

A third point that various feed by their chemical co the utmost importa this is the fact that certain combination are not easy to dete one of the most impo But it may becom exclusively. It is n what proportions of profit, and also to most safely fed with

any one of these is really a few instances relatively in pt by these associations, he what are these few among so appears about as wise to try to record beef and milking organization. To take such a as indicative of unblushing. I can't see why the Shorthorns that carries with it milking Shorthorns is not registration that professes to s—without furnishing the

form that admits of up-ards is the one that provokes Many of the Animal Hus- are opposed to it. Can that is valid why it should (lined above? If they can, it is. The only reason that far, is that it will lead to a of individuality. How can when the females must show ses in succession, when they in standard in weight, and tion to be admitted? How in lowering the standard? t the up-grading shall begin dation. Is there not both such up-grading? time, nearly all the breeders e idea of improving animals d. It is pleasant and may majority. But majorities orities increase. Not many regarded as rank heresy to hing as a dual purpose cow. age to say there was, was ell. How many are there t dual cows can't be bred? e teachers of animal hus- e commonness with which e measure of its correctness.

THOMAS SHAW.

given the sire in maintaining him in the best possible way will be rewarded by the increased number and quality of the offspring. Oats are a suitable grain for a boar, but perhaps a mixture would be quite as good in the idle season. If corn be fed, either ground oats, middlings or bran should be given in conjunction with it, for corn by itself is too fattening and debilitating. Ground oats and middlings together make an excellent meal ration. In winter a few roots should be spared for the swine, and the boar will be improved by a fair quantity of them. They have a laxative effect, prevent constipation, and keep the animal healthy and vigorous. Alfalfa and clover hay cut and mixed with pulped roots, or cut and steamed, are good, indeed, as a roughage. Soaked or steeped alfalfa will act as a substitute if roots or the latter are not available. If it is at all possible to feed a little skim milk or buttermilk along with the meal excellent results will come from it. The quantity of meal to feed must be decided by the feeder himself. During the busy season, the boar should be fed liberally, but at no time should he be given more than he will clean up before leaving the trough. In the idle months let the rations be regulated by the condition of the animal.

Theory and Practice in Feeding.

EDITOR THE FARMER'S ADVOCATE:

Of late years much has been learned and written about the PRINCIPLES OF FEEDING. Have we, during the same period, learned anything of consequence about the PRACTICE OF FEEDING? Emphasis has been laid upon the nature and functions of food, the composition and digestibility of feeds, balanced rations, etc.; and much valuable information along these lines is now available for the average farmer. But how valuable is this knowledge in ordinary practice? Are other questions of more importance in actual feeding operations than those determined by laboratory experiment? Having seen little published concerning these "other questions," I venture to make the following remarks upon the actual practice of feeding, based upon my own personal observation and experience. They are intended to be merely of an introductory character, as the whole subject is too big for a short letter.

In the first place, it may be asserted that no one can be a good feeder without becoming intimately acquainted with the stock he is feeding. Different individual animals vary considerably in their tastes and capacities, and unless the feeder makes a close study of these individual animals as individuals he cannot make the best use of his feed. Knowledge of this kind can only be gained by actual practice. It cannot be written concerning it. One must learn to do by doing.

In the second place, close attention must be given to the faeces of each animal as an indication of good digestion and assimilation. One may soon learn by observation, but not otherwise, the appearance of the faeces in the normal health. Any variation from this condition indicates more or less indigestion. Injudicious or heavy feeding often produces in cattle a species of mild chronic diarrhoea, which sometimes escapes notice, and which will produce serious results if allowed to go unchecked. I have found barley and silage likely to produce this trouble unless fed with cautious watchfulness. The only cure is to reduce or change the feed. Cut down the grain ration; cut down, or discontinue, the use of silage; feed roots and hay in moderation, and, when the trouble is remedied, increase the feed very cautiously. Every individual animal requires individual attention to get the best results, for what will be utilized to advantage by one will kill another.

A third point, of no little importance, is the fact that various feeds possess properties not represented by their chemical composition, which properties are of the utmost importance in practice. Connected with this is the fact that feeds are usually more valuable in certain combinations than alone—which combinations are not easy to determine. For example, good silage is one of the most important and most wholesome of feeds. But it may become positively poisonous if fed too exclusively. It is not an easy matter to determine what proportions of silage can be fed with maximum profit, and also to discover what other feeds may be most safely fed with it. My own experience is much

in favor of cotton-seed meal as a concentrate to feed with silage. Roots are a very safe feed, and even if fed in large quantities will not produce injurious looseness of the bowels. Barley I have found relatively unsafe as a cattle feed, at all events if fed in connection with silage. Oats are, on the contrary, much safer. I have never known a case of sickness from overfeeding of oats, but have seen quite a number of cases where serious indigestion has resulted from moderately heavy feeding of barley or barley and oat chop. I have found that great watchfulness must be exercised in feeding to cattle meal containing barley. Whether this is equally the case without silage I cannot say. Possibly some of your readers could throw light upon this point. Then, again, there is the question of the tonic or medicinal value of certain feeds. I am disposed to think that turnips, for example, have a value of this kind, which is quite worth while considering. This whole question needs careful investigation, for there are many intricate points of the greatest importance in practice upon which light may be thrown by careful experimentation.

Further, in actual feeding operations, one must consider the following points, if his efforts are to meet with success: Keeping stock free from vermin and skin diseases; keeping them dry and comfortable; providing them with sufficient clean water at suitable times and with fresh air; and observing punctuality and regularity in every respect. Neglect in such matters cannot be atoned for by the best of information as to the composition of feeds.

What is the conclusion of the whole matter? This, at all events: (1) That our recent scientific investigations of feeds and feeding have been too narrowly conceived, and that much of importance still remains for investigation. (2) That much knowledge concerning feeds and feeding must be gained by personal observation and experience, and cannot be communicated.

I should be very much pleased if some of your readers who are practical feeders would publish their experience and let us know how much, or how little, importance they attach to recent scientific investigation of feeds and feeding.

Brant Co., Ont.

W. C. GOOD.

FARM.

Co-Operative Work on Manitoulin Island.

Editor "The Farmer's Advocate":

Three years ago there was no co-operative work in progress in this district, although a couple of experiments in this line had been tried. The outstanding one was where a car load of salt was bought through the old Grange, and the man who brought it in had a big job to get rid of it, because the dealers cut the prices and many who had ordered went back on their word and bought from the dealers. Three years ago, then, the only feeling about co-operation here was of a very discouraging nature, and no co-operative work was being completed by our farmers.

There was, however, one Farmers' Club still running, and during that winter four more were organized. Seed judging classes were held for each of these clubs, and as a result a small business was worked up in co-operative buying and selling of seed grain—particularly in buying seed corn. It was from this humble start that our successful co-operative work really dates. Two of these clubs (Billings and Tehkummah) sold their lambs together the next fall, getting about 25 cents a hundred pounds profit over those who sold individually. Gordon Club appointed a salesman and sold some butter, eggs, and potatoes through him, getting one or two cents more than the going price for their butter and eggs, and ten cents per bag more for their potatoes.

The farmers in other parts of the district heard of what these Farmers' Clubs were doing, and the next winter there were seven more clubs organized, making twelve active Farmers' Clubs.

The membership in these clubs was between fifteen and sixty, depending upon the size of the settlements. That year they did quite a business in buying clover, corn and other seeds, salt, etc., and in selling their lambs, and in every case they made better bargains than they could have made as individuals, the Billings Farmers' Club getting 50 cents per hundred pounds more than the highest quotation that was given at any other place in the district. The club at the west end of the Island also made a start in shipping produce to the Soo, which was sold on the open market. As soon as this move was made the local store-keepers raised the price of butter three cents per pound, and still those who shipped through the clubs got more money than they could have got locally. In justice to the local store-keepers, though, it must be admitted that only the best of the butter was shipped, and they had to take what was left, which, in many cases, was not very good. On the other hand it was and is impossible to get them to pay a premium for the best butter, so that it was more or less of a hardship for those who took pains to make a good product, and could not market it to advantage. When this movement was started butter was selling locally at 17 cents per pound, but it immediately jumped to 20 cents. The butter that was sent to the Soo, however, sold for 25 cents. Deducting 3 cents for carrying charges, commission, etc., the butter returned 22 cents here. Later, though, the butter sold for 30 cents at the Soo, which returned 27 cents here. There was the same proportion of gain in eggs as well. Then, late in the fall last year, there did not appear to be any local market for either poultry or pork, and the Farmers' Club started things off by making good-sized shipments to the Soo. This is where they struck their first snag, for they were a long time in getting their returns for the poultry and pork, and a few got discouraged. Most of them stayed with the Farmers' Clubs, however, and to-day they have this matter nearly straightened out. It might be emphasized here that this trouble really made co-operative work stronger here, as it exposed the ones who were most likely to prove traitors to the cause in time to prevent them doing much damage. To-day they have entirely recovered from this setback and are stronger and more determined than ever.

It seems to be a very difficult matter to get farmers to keep an accurate statement (or any other kind of statement) of what they do, and it is very difficult to find out just what amount of business was done by our Farmers' Clubs until this time, excepting for the shipments that went forward to the Soo. The amounts of these were: 3,864 lbs. butter, bringing \$986.37; 408 dozen eggs, bringing \$92.67; 98 bags of potatoes, bringing \$33.73; 1,901 lbs. poultry, bringing \$250.46, and 13,037 lbs. pork, bringing \$1,378.43 or a total of \$2,741.71.

However, we do know fairly accurately what business our Farmers' Clubs have done during the past year. Their business was as follows:

Club.	Supplies bought.	Produce sold.	Total.
Mindemoya ..	\$ 498.65	\$3,046.00	\$3,539.65
Spring Bay ..	1,438.53	1,153.83	2,592.41
Robinson	96.00	1,615.00	1,711.00
Gordon	952.06	584.60	1,486.66
Budges	65.00	890.00	955.00
Barrie Island.	125.80	600.12	725.92
Blue Jay	116.00	500.00	616.00
Billings	302.35	199.55	501.90
Ice Lake	176.05	—	176.05
Mills	74.50	153.60	228.10
Evansville ..	154.89	—	154.89
Total	\$3,994.88	\$8,692.70	\$12,687.58

This statement does not necessarily represent

Own Salesman.

associations, common in co-operative institutions substitute for the old, local handling stock that results in heavy expenses amounting to a fortune. This saving is entirely the local buyer might make. The local buyer to compete with

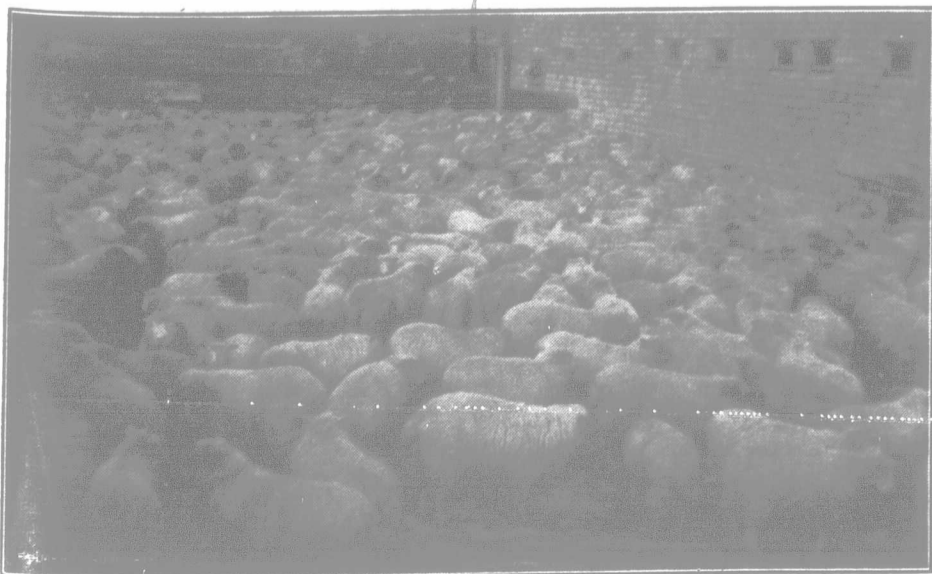
200 of these associations know, says A. D. Wilson, division of the Minnesota has failed. The organiza- no capital stock is sold presents simply a mutual farmers to ship their stock each farmer, regardless of is, is enabled to ship to a and to get exactly what at less the cost for freight, other words, a man can advantage as he can a car-

division of the University very hoof grown in Minne- its owner. This may be tions, and it is the hope ipping point in the state ciation, and in this way improvement of live-stock clubs have perfected

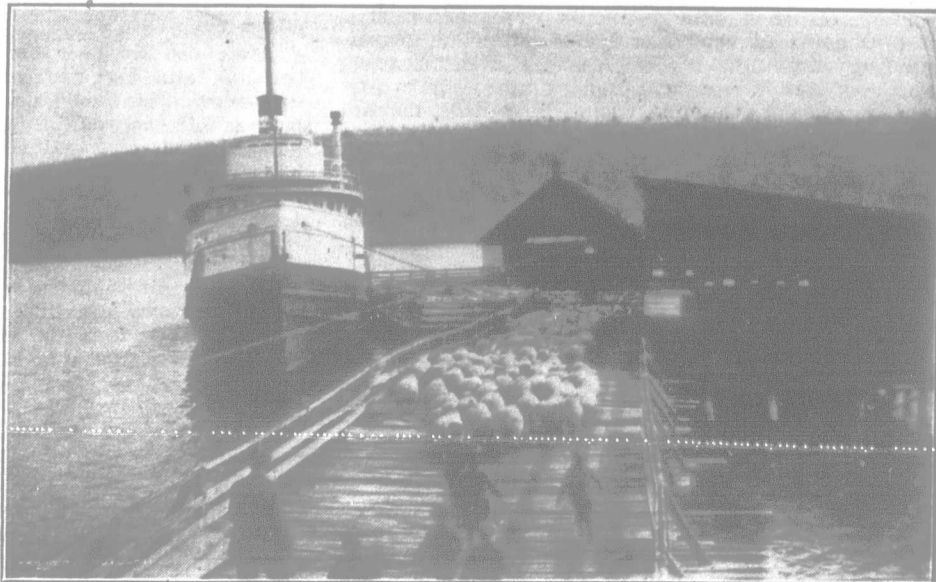
Winter.

strong way to handle the incorrect way is to shut side and feed sparingly. the boar outside, force him liberally. Confine- and he is an important ve service, underfeeding will surely result in loss- ter litters. A large yard d is suitable. Construct elter that is dry and will rters put a liberal supply very well. At "Weld- sows have been wintering iently large to give them it of their own accord. not elaborate. Where- h at some distance from g distance becomes icy, horse manure. This, of ly when the animal is

too economically. It is y thin, nor is it wise to y of flesh put on under of exercise, will maintain condition for the next l character of the litter- tent upon the condition- extra care and attention-



Pen of Lambs Sold by the Manitoulin Marketing Association.



Loading Manitoulin Lambs on the Boat.

the co-operative activities of these places, however, as other co-operative work is being carried on as well. Of course, too, some of these places are much smaller than others, and for that reason have not had the same opportunity to show as big results. Their business would show an average profit of 10 per cent.

Two years ago the Manitoulin Wool Growers' Association was organized by our Farmers' Clubs in order to have their wool graded and sold co-operatively. The wool that year graded and sold as follows: Medium Combing, 216 lbs., selling at 23½ cents; Low Medium Combing, 3,810½ lbs., selling at 22½ cents; Lustre Combing, 5,242 lbs., selling at 21 cents; Coarse Combing, 5,378½ lbs., selling at 19 cents; rejects, 737½ lbs., selling at 16 cents; Lustre Combing (Washed), 258 lbs., selling at 26½ cents; and Coarse Combing (Washed), 200 lbs., selling at 25 cents, or a total wool business of \$3,267.23. Flat prices paid by the dealers here were from 14 to 17 cents for unwashed, and about 24 cents for washed wool.

This year the Manitoulin Marketing Association was organized to take over the business of the Manitoulin Wool Growers' Association, and to also do a general marketing business, particularly in handling live stock. The wool was graded and sold just after the raising of this embargo for an average of 26 cents; this price being split up into the different grades, and each man paid according to quality. The wool brought \$5,189.57. The lambs were sold for \$6.60 per hundred pounds f. o. b. dock here and brought \$6,050.31. The cattle and hogs were shipped to Toronto and sold on the market. They brought \$10,995.66, most of which was for cattle. This makes a total business for the year of \$22,235.54, all of which was in selling farm produce. The produce is paid for at going prices at the time of sale, and for this year the profits on hogs and cattle were paid to the producer at the time they were sold. On the balance of the business the profits are being paid out in proportion to the business done, and a dividend of 13½ per cent. has been declared by the Directors.

To be sure, the co-operative business that has been done by the farmers of this district is not excessively large, but then there aren't many farmers here. There are only a little over a thousand farmers scattered over the district, and many of these have not yet experimented with the new-fangled idea. Then, too, the co-operative business is only rightly started, but even at that a satisfactory co-operative business of \$34,928.12 (\$12,687.58 by Farmers' Clubs, and \$22,235.54 by the Manitoulin Marketing Association) is a very good business, and augurs well for the future expansion of co-operative work on Manitoulin Island.

Manitoulin District. I. F. METCALF.

Four Things That Make Farming Pay.

A farm management demonstration in Southwestern Minnesota showed that the average labor income of sixty-three farms taken in order was \$423. This means that the farmer had \$423 left for his own work above all business expenses, and 5 per cent. interest on an average investment of \$24,500. In addition to the foregoing, the farmer had his house rent and such products as the farm furnished toward the family living. The results given coincide with extensive investigations in several states which have shown that one should endeavor to exceed the average of one's locality in as many of the following ways as possible if a profitable farm business is desired: 1, size of business; 2, crop yields per acre; 3, live stock receipts per \$1 of feed; 4, amount of work accomplished per man.

In this locality the average farm had 192 acres of crops; the yields per acre of the leading crops were corn, 39 bushels; wheat, 11 bushels; oats, 35 bushels; the average receipts for \$1 spent for feed were \$1.16; and the average amount of work done per man was the raising of 100 acres of crops, and the care of a corresponding amount of live stock. The foregoing averages should not be taken as applying to any locality except the one included in this demonstration.

There were five farmers, who fell below the average in each of the four factors. Not one of the five made as much as a \$500 labor income. Of eighteen farmers who exceeded the above average in but one of the four factors, only one made a \$500 labor income. Again eleven farmers exceeded the average in three of the four factors. Out of the eleven there were 10 who made more than a \$500 labor income. Just five farmers exceeded the average of their neighbors in all factors, and every one made more than a \$500 labor income.

This demonstration shows that under the conditions prevalent in this locality, in the year 1914, a farmer who can do a little better than the average of his neighbors in at least three of the above four factors is almost certain to make more than 5 per cent. interest on the investment, and a labor income of over \$500.—W. L. Cavert, University Farm, St. Paul.

Farm Sidelights.

Editor "The Farmer's Advocate":

The boys cut a bee tree the other night. There was a great deal of mystery about finding and laying low the forest home of the colony to which these industrious workers had belonged. First, there was the joy of discovering the tree, a piece of work which is supposed to involve a great deal of tact and almost endless patience in tracking the bees home, and determining for a certainty that it is really a bee tree. Then, too, for fear that someone else might have made the same discovery we had, we needed to be all the time on guard lest our secret should by some slip of the tongue be betrayed, and we have the disappointment of making the trip out into the woods in the darkness and finding that we have waited too long—somebody else had cut our tree. All there would be left in such a case would be a dead and fallen tree, with a big hole chopped in one side showing where the honey had been taken out.

It was not quite midnight when the boys began to cut down their tree; but the moon had wheeled far into the western sky before it fell. Some of the young folks who had not been permitted to share the secret of the doctory explorers, heard the first crack of the axe and crept softly out of bed to follow the trail deep into the woods to comfortably watch proceedings from a nearby thicket, listening to every low-spoken word, sure that they would by and by enjoy a share of the sweets, without a bit of the work of securing it. They found added sport in hurling a wagon load of old hemlock knots out of their hiding place toward the workers, bringing operations to a standstill with every volley until a reconnoiter could be made for the mischievous disturbers of the peace. It was hard work, and cost a lot of sweat, but the big pailfuls of honey paid for it all. I am sure the boys who cut the tree had the most fun. Honey that costs nothing loses half its sweetness.

How like to the bees and other creatures of field and forest we all are in our storing of good things for days when we cannot work, but still must eat! I thought of this as I watched our women folk busily canning and putting up fruits and vegetables for winter use. They seem to enjoy it just as much as the bees do their sweet labor of gathering honey from plant and tree. I think they do. One of the delights of life with us humans seems to be that of laying by treasures for future use.

I never see our home queen bees directing these operations that I do not think of a night I spent away over toward the border line between Illinois and Missouri. Then I was working for the national government, and had been sent out into the middle west on an errand. Night came on and I was a long way from any town. As I often did, I called at a little house and asked if I might stay all night, as I could not reach an inn before dark. When the man and his wife learned that I was a messenger from the national capital they could not do too much for me. Surely, I never was treated by any one more thoughtfully than I was in the home of that half-breed Indian and his wife. But the thing which most pleased me was that the good wife fairly outdid herself in preparing the supper for her guest that night. I ought not to have been so curious, but I could not help counting the different kinds of sauce she brought out from her little store. Eleven kinds, and she was not content unless the visitor had tasted of them all! And it is my testimony that they were all good.

Afterward I saw the farmer folks making apple butter out of doors many times. Great kettles that would hold as much as five big pailfuls of the apple fruit were kept boiling until the contents were soft and delightfully toothsome. It is to this day a thing of wonder to me how they were able to flavor that apple butter so deliciously. I never saw anything like it anywhere else.

How did we ever come by this characteristic to save and lay up for ourselves and for those we love? It seems to be at the very foundation of all successful life. Now and then a man has it to excess, and the world calls him miserly and selfish, and rightly so. On the other hand, there are those who think the world ought to take care of them, whether they work or not. Midway between these two classes stands the great army of men and women who are doing all the great things of the world. They are the people who drive back the forests, make the roads, improve the farming lands and make this old earth of ours bud and blossom like the rose.

I met one of these men the other day. He was getting old, but the fire of vim and the smile of a kindly heart lighted up his face as he told me how he had fought his way through hardship to comfort.

"I hung my vest on a little maple right over there," he pointed out to me. "Then I went at it with my axe to cut out my home. Man! Those were big trees! They are most all gone now. It was three miles to the post office, and

we only had the mail two or three times a week. The one who went was supposed to bring all that belonged to the neighbors. We were all thoughtful for each other. We built the first school-house out there on the corner, and for a good many years we kept the Farmers' Club alive, bringing some of the best speakers we could get from the city, ten miles away, now and then to tell us about what was going on in the world. Robert—my neighbor on the north, a fine Scotchman—and I took the lead in most everything. Why, we dug the graves for those who went away, and made their coffins out of nice pine boards. And we were all good friends. A good many of the old folks are gone now—if you find them you have to go down to the cemetery; but we took our turn and did the best we could."

And you did well, good old friend! You certainly made the world a better place to live in! Many years to you yet!

N. Y.

EDGAR L. VINCENT.

Sweet Clover Experiences.

Editor "The Farmer's Advocate":

Sweet clover was much discussed this fall at threshings, even as much as the war, and I trust a few items about it may be of interest to others.

We grew and cut 20 acres this summer, and therefore, should know a little about it. We almost feared by reports that our stock would refuse the hay, but we now use it as a luscious lunch to coax the cows in with, and they even tear down the threshed stack of it.

We cut ours in mid June for hay, and about October 1 for seed. The latter we cut with a binder, and after threshing had about 4 bushels per acre, but there was only about one-quarter enough plants, as we sowed it 4 lbs. per acre instead of 15 or 20 lbs. as we should have done. Our hay crop was also inferior by too thin seeding, as the stalks were too coarse; but even after all our mistakes the horses and cattle eat it greedily.

We accidentally found that we could kill it out easily by mowing too closely the first 3 rounds around our field. The mower was cutting very low, and then, to ease the horses, have less bulky stems, and to leave a platform of stubble for the hay to dry on we cut higher. The low-cut never grew again, but the other was three feet high in three weeks. Also we killed a little yellow blossoming we had in the white by mowing the crop before the white came out and yet the yellow was out and it never came on again; and by plowing some under about July 1, after the hay was hauled in we also killed it.

This year I sowed 15 lbs. on three-quarters of an acre about May 15, and by July 15 had hundreds of stalks in the oats 30 inches high, so if no nurse crop were sowed it could be mowed once, perhaps twice, the first year, or it would be ideal to sow to plow under for potatoes about June 20, especially if it were sowed the fall before.

It will grow where water flows, and where the sand banks blow. It grows most luxuriantly on gravelly hillsides, and throughout the valleys far and wide. On the small percentage of farms where alfalfa grows abundantly I would advise generally leaving sweet clover alone, but 80 per cent., perhaps, of Ontario land is not the best for alfalfa. It seems to get too dry and hot, or it kills in winter, or grass creeps in too quickly, or water is too close to the top, and on this the larger part of our farming land, sweet clover stands up and is ready to enlist to feed our soil, our stock and feed the nation.

I feel assured sweet clover is going to be one of the greatest of blessings to agricultural interests. Especially will thousands of acres of sandy land rise to nearly double their value through its possibilities, but as usual beginners should not sow over-much. Try it and then you will be most pleased, and be one of those contented farmers always having plenty of well-cured hay on hand. Sow at least 15 lbs. per acre, cover lightly. I let Nature cover mine, and Nature will do the rest.

FRANKLIN BETTSCHEN.

Dufferin Co., Ont.

A Manure Boat.

Editor "The Farmer's Advocate":

We use a stoneboat with good results for removing manure from the stable in winter. It is not an ordinary boat, but one made as follows: The runners are 3 inches by 4 inches, pine, (slightly curved to pass over lumps, etc.), and 4 feet long, the platform is set 18 inches higher than the runners, and made of 1-inch boards, size 4 feet 6 inches by 3 feet 4 inches. The runners are 24 inches apart (centres). A load is put on—about four good wheel-barrow loads—taken to the manure heap, and by the runners being close together and weight 18 inches above runners load is easily upset, and when the horse steps up the boat will always right itself. By using the boat, manure may be kept some good distance from buildings.

Ont. Co., Ont.

H. W.

Medic

Editor "The

We are at all its possible we will be w Year" as usu us will be w muckle happy ahead. The happy enouch they have no the wind is f body but it comes. An' ca' a wee bit the human re we are in tro plan tae tak what the cau hae a chance tae keep frae ond time. I different some the fault o' no need tae However, som that way, a necessity for a wi' a' its mi o' sae mony o' the unive think? He doesn't he?

Weel, I haad mysel' for a g I'll tell ye the far frae the tr but gin I can it will perhaps chap tae try a troubles hae s hae been for get tae the t thing we can that is that it the world wh track, or even aff, as some o ent. It seems senses sae the general at the a country tak they forget the it's time for w come tae the wastin' their l generations th us are over fo sick, but 'gin t guid judgment the better for can deny that were morally tae them. Th yet either, but their medicine, countries on th be needin' a d gin' we can ju case o' history back as far as A' the stories, the Bible gae lickin' frae the every once in a aff the road an ye'll find it was hae made ony Humanity is th tae the bad gi war seems tae in this tendency.

In auld Scotla morally, than a Was it no' the r frae the enemie sides. There's that is tae get a just cause. to-day? Why the same place was five thousan hersel'. Ane no oot o' her, an' She willna' fig chance tae sleep.

Sae, as I see punishment. W spoon. It's no for individuals. time an' again f that were worse deny that it was we didna' get fu There isna' mony wouldna' gae ta they could find g in some way or same law works The city o' Pari this, frae what durin' the past

Medicine and Punishment.

Editor "The Farmer's Advocate":

We are at the beginnin' o' another year wi' all its possibilities an' uncertainties, an' though we will be wishin' ane anither "A Happy New Year" as usual, I'm thinkin' that some amang us will be wonderin' gin there's ony chance for muckle happiness in the twelve months that are ahead. The maist o' people are apt tae be happy eneuch when everything is gaein' weel an' they have no trouble tae bother aboot. When the wind is fair they can sail their boat wi' onybody, but it's a different story when the storm comes. An' juist at present it's what ye might ca' a wee bit stormy for a conseederable part o' the human race; there's no denyin' that. When we are in trouble o' ony kind it's an unco' guid plan tae tak' a look back an' see, gin we can, what the cause o' oor trouble was, an' then we hae a chance maybe to get oot o' it, or at least tae keep frae gettin' in the same scrape the second time. But the present case seems tae be different some way. We are in trouble through the fault o' ithers, they tell us, an' sae we hae no need tae be worryin' aboot oor pairt in it. Hooveer, some o' us canna' let the maitter rest that way, an' we will be wonderin' what's the necessity for sic a war as is gaein' on at present wi' a' its misery an' bloodshed an' the sacrifice o' sae mony o' oor best men. Gin there's a ruler o' the universe why does he no' stap it, we think? He could dae it in a meenute. Why doesn't he?

Weel, I hae been thinkin' aboot these things mysel' for a guid while noo, an' gin ye'll let me I'll tell ye the way it looks tae me. I'm maybe far frae the truth in ma speculation an' guessin', but gin I canna' come onywhere near the mark it will perhaps be the means o' gettin' some ither chap tae try a shot. An' for ae' thing, gin oor troubles hae started us tae think they will no' hae been for naething. Gin we keep goin' we'll get tae the truth sometime. Noo, there's one thing we can say aboot war, bad as it is, an' that is that it's guid discipline for the nations o' the world when they get tae runnin' aff the track, or even gaein' doon grade wi' the brakes aff, as some o' them seem tae be daein' at present. It seems tae bring them back tae their senses sae that they are able tae judge things in general at their true value. When the people o' a country tak' tae chasin' money sae hard that they forget there's onything else worth livin' for, it's time for war or somethin' juist as bad tae come tae them an' show them hoo they are wastin' their lives an' spoilin' the chances o' the generations that are tae follow them. Nane o' us are over fond o' takin' medicine when we are sick, but gin the doctor that gies it tae us has guid judgment we're mair nor likely tae be a' the better for it. An' I'm thinkin' that no one can deny that some o' the nations o' Europe were morally pretty sick before this war cam' tae them. They're maybe no altogether better yet either, but they will be, when they've finished their medicine, I feel sure o' that. An' there are countries on this side o' the water that will soon be needin' a doctor tae prescribe for them, too, gin we can judge by appearances. It's juist a case o' history repeatin' itself, an' ye can gae back as far as ye like an' ye'll find it the same. A' the stories o' the auld Jews that we hae in the Bible gae tae prove it. They had tae get a lickin' frae the Philistines or some ither tribe, every once in a while tae keep them frae rinnin' aff the road an' gettin' lost in the bush. An' ye'll find it was no' different wi' ony people that hae made ony progress towards a better life. Humanity is the same the world over. We'll gae tae the bad gin we are left tae oor selves, an' war seems tae be Nature's way o' counteracting this tendency. What was it made oor ancestors in auld Scotland better men, physically and morally, than a lot o' their descendants to-day? Was it no' the necessity o' defendin' their country frae the enemies that surrounded them on a' sides. There's one sure way o' makin' men, an' that is tae get them fightin' in what they ken is a juist cause. What's the maitter wi' China to-day? Why is it that she is juist aboot in the same place, mentally an' morally, as she was five thousand years ago? She willna' defend hersel'. Ane nation after anither takes a bite oot o' her, an' even Japan canna' roose her up. She willna' fight sae lang as she has half a chance tae sleep.

Sae, as I see it, war is baith medicine an' punishment. We get the twa oot o' the ore spoon. It's no different for nations than it is for individuals. We a' ken that we hae suffered time an' again for oor mistak's, an' ither things that were worse than mistak's, an' we canna' deny that it was because o' this suffering that we didna' get further doon the hill than we are. There isna' mony men born intae this world that wouldna' gae tae the deil by the shortest road they could find gin they werena' pulled up short in some way or anither. An', as I said, the same law works in the same way wi' nations. The city o' Paris is an' unco' guid example o' this, frae what I hae been readin' an' hearin' durin' the past year or mair. As we a' ken

Paris used tae mak' a specialty o' one thing, an' that was haein' a guid time. Gin they could be amused in some way they didna' care muckle how it was, guid or bad. Gin ye had the price ye could dae aboot what ye liked. But they're thinkin' aboot ither things the noo. Ye wouldna' ken the city, they tell me. Ilka young man is awa' fightin' for his country, an' the women that used tae spend their time on card-playin' an' drinkin' an' dressin' are noo either lookin' aifter the wounded soldiers or makin' an' sendin' them supplies o' clothes an' ither things. Is there onyone that will say this isna' a change for the better, ony way ye look at it. Their trouble has brocht them tae a condeetion o' mind where they hae forgotten their ain pleasure in the necessity o' carin' for ithers. In ither words, Nature is bringin' them through their sickness intae a state o' moral health, an' what is true o' them is true o' the ither nations tae a certain extent. It's because o' the tremendous scale on which this war is being carried oot that we are struck wi' the horror o' it. We never gie the maitter a second thought when we hear o' a mon being murdered by somebody, but it's juist as bad an' maybe worse than onything that happens on the battlefield. What we want tae get is the richt view-point, an' then we will no' be sae apt tae get discouraged as we are the noo. When we think we see a purpose in the supposed calamities that come tae us, it makes them a hale lot easier tae bear, an' we hae a richt tae get a' the encouragement we can that disna' rin' contrary tae common sense. There's juist one thing that can keep us frae comin' oot a richt in the end, an' that is oor giving up hope. Sae lang as we fight we're sure o' winnin' oot some time or ither, but the Lord himsel' canna' dae onything wi' a discouraged mon.

clipped, and on the milk cows any long hair on udder, back, also on flanks and any place manure is liable to hold is clipped with a pair of horse clippers; this facilitates cleaning, and it is much easier to have less sediment in milk. Of course, one must see that water is before cattle at all times. Less feed is the main object of this practice. I fully believe cattle thus treated will gain or milk as well on 15 to 20 per cent. less feed. It means less labor also. What a mess the cattle make of the alley by the time twenty or more have walked in and out? It seems impossible to keep the stable clean if cows are let out to water. Of course, to one not engaged in dairying this does not matter so much. This is the eighth winter we have practiced this method, and I cannot remember a single instance of an animal off its feed nor ailing in any way that might be caused by lack of exercise.

Ontario Co., Ont. F. H. WESTNEY.

Raising the Dairy Calf.

It is now fairly well understood that calves properly raised on skim-milk are equally as growthy, thrifty and vigorous as those raised upon whole milk, or those allowed to run with their dams. In fact, the skim-milk calf will oftentimes show a more regged framework than a calf raised on whole milk. It is usual, however, for the whole-milk calf to appear smoother and more plump, due to the fact that it lays on a greater amount of body fat than the calf fed skim-milk.

Except for the fat that has been removed, skim-milk is identical in composition with whole milk. When whole milk is taken into the calf's body, the fat of the milk is used to produce heat to keep the calf warm and also to form body fat. This same function can be performed very much more cheaply by starchy grains, such as corn and oats.

The protein of milk, which is the constituent most concerned in muscular growth and the building up of the vital organs, is equally as abundant in skim-milk as in whole milk.

TAKING THE CALF FROM THE COW.

It matters little whether the calf is taken from the cow immediately after being dropped or is allowed to stay with its mother for several days. The essential thing is that the calf receive the first milk from its mother. A calf should always receive the milk from its own mother for the first two or three days of its life, because the milk is quite unlike normal milk and stimulates the calf's digestive tract to action.

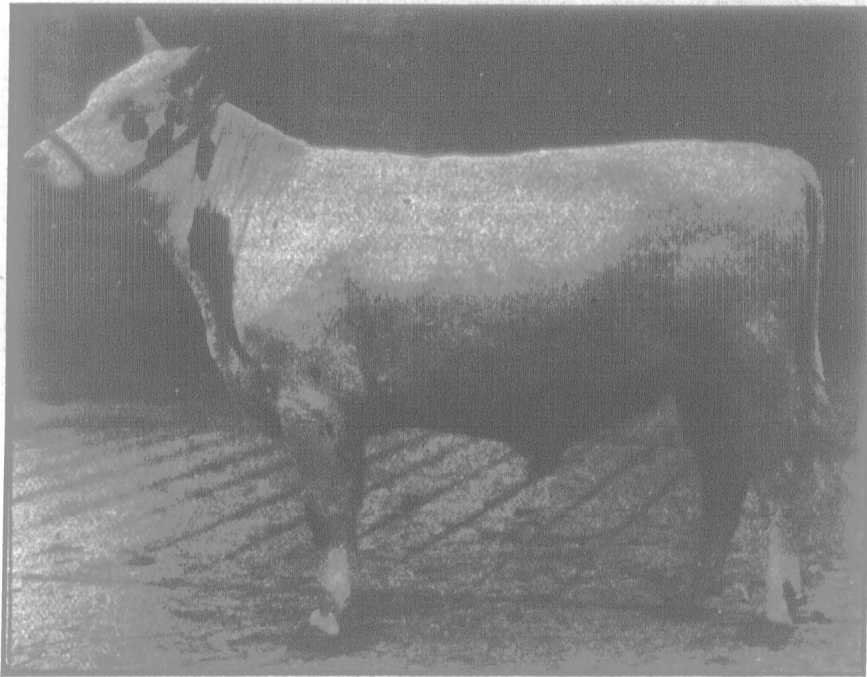
The earlier the calf is taken from its mother the easier will it be to teach it to drink. When the calf runs with its mother for several days it will learn to drink more quickly if it is not offered milk from 24 to 36 hours after it has been separated from the cow. In most cases the calf will learn to drink quite readily if allowed to suck the feeder's fingers while they are held under the milk.

FEEDING WHOLE MILK.

The stomach of the young calf is small, so that it is not able to handle large amounts of milk. Eight to 10 pounds or four to five quarts per day is the proper amount to feed a young calf. For a very small or weak calf, six pounds or three quarts is sufficient. The results are probably a little better when the calf is fed three times daily for the first few days. This is not necessary, however, and it is usually best not to feed three times daily unless the milk can be obtained fresh from the cow. The milk should be divided equally, the calf being fed twice daily, receiving four or five pounds at each feed.

FEEDING SKIM-MILK.

A calf of ordinary vigor can be put on a skim-milk diet at the age of two or three weeks. The change to skim-milk should be gradual. This change is best made by substituting a pound of skim-milk for a pound of whole milk at each feed until the calf is receiving only skim-milk. The amount of skim-milk fed should be the same as that of the whole milk which it replaces. This will usually be 10 to 12 pounds for a calf two to three weeks old. A gradual increase in the milk should be made as the calf grows, until at



Burnside Lucky Master Swell.

First-prize Ayrshire senior bull calf at the Provincial Winter Fair, Guelph, 1915. Exhibited by F. H. Harris, Mount Elgin, Ont.

Sae, whether oor place, for the comin' days will be in the trenches in France or on the farm at hame, let us wish ane anither a Happy New Year an' start oot tae mak' it that same by takin' the warst that may come tae us an' makin' the best o' it; for ye can tak' ma word for this, if for naething else, oor troubles will end as soon as they canna' dae us ony mair guid.

SANDY FRASER.

THE DAIRY.

Wintering Dairy Cows.

Editor "The Farmer's Advocate":

In your issue of Dec. 16 you ask feeders to send their methods of stabling cattle. Our method is to tie in the fall, when the weather gets severe, and not let out again until spring grass comes. I am aware that this method is severely condemned by some, but did you ever know any feeder to try this out and go back to daily exercising? (This does not apply to the bull.) We keep perhaps twenty-five milk cows, in an average year these are stabled at night about October 15, and about this time the stables are given a thorough cleansing and then sprayed or whitewashed with a fairly strong solution of carbolic acid or Zenoleum. All the stock are then treated for lice, even though none may be found. The most effective and altogether satisfactory lice killer we have found is sulphur, hellebore and cement mixed about equal bulk, and sifted along the backs and necks. This latter performance is repeated about every six weeks through the winter.

With a pair of sheep shears the tails are all

two or three times a week. As supposed to bring all neighbors. We were all ther. We built the first on the corner, and for a kept the Farmers' Club the best speakers we could miles away, now and then was going on in the world. the north, a fine Scotch- had in most everything. for those who went away, out of nice pine boards. friends. A good many of now—if you find them you e cemetery; but we took est we could." You cer- old friend! You cer- a better place to live in!

EDGAR L. VINCENT.

Experiences.

Advocate":
uch discussed this fall at as the war, and I trust may be of interest to

acres this summer, and a little about it. We al- that our stock would re- now use it as a luscious in with, and they even stack of it.

June for hay, and about the latter we cut with a ng had about 4 bushels only about one-quarter wad it 4 lbs. per acre in- as we should have done. inferior by too thin seed- oo coarse; but even after orses and cattle eat it

and that we could kill too closely the first 3 The mower was cutting ase the horses, have less ve a platform of stubble ve cut higher. The low- ut the other was three Also we killed a little yel- in the white by mowing e came out and yet the never came on again; nder about July 1, after e also killed it.

lbs. on three-quarters of and by July 15 had hun- ds 30 inches high, so if ved it could be mowed e first year, or it would nder for potatoes about were sowed the fall be

ter flows, and where the ows most luxuriantly on oughout the valleys far percentage of farms where I would advise general- alone, but 80 per cent., and is not the best for too dry and hot, or it creeps in too quickly, or e top, and on this the ming land, sweet clover o enlist to feed our soil, ation.

ver is going to be one of o agricultural interests. of acres of sandy land e value through its possi- ginners should not sow then you will be most those contented farmers well-cured hay on hand. acre, cover lightly. I let Nature will do the rest. NKLIN BETTSCHEN.

re Boat.

ocate":
th good results for re- stable in winter. It is t one made as follows: es by 4 inches, pine, ver lumps, etc.), and 4 is set 18 inches higher made of 1-inch boards, feet 4 inches. The run- (centres). A load is wheel-barrow loads— p, and by the runners weight 18 inches above et, and when the horse ways right itself. By ay be kept some good

H. W.

the age of five months it is receiving 16 to 20 pounds daily, depending upon the size of the calf.

FEEDING GRAIN.

A calf will begin to eat a little grain by the time it is two or three weeks old. After it is a few days old, grain should be kept before it, and a little put into its mouth immediately after it has finished drinking its milk to aid it in learning to eat. The grain should always be fed dry and never mixed with the milk. In order that grain be properly digested it is necessary that it be chewed before it is swallowed. Probably the best time to feed the grain is just after the milk has been fed. The calf's appetite is very keen at this time, and it will take to the grain readily.

A good grain mixture to use until the calf has learned to eat well is crushed oats. Up to the age of three months it is well to give the calf all the grain it will eat. At that time it will be eating two or three pounds daily, and may very well be limited to this amount until weaning time.

FEEDING HAY.

The calf will begin to eat hay at about the same time as it does grain, and some should be provided for it to nibble. For the young calf, clover or mixed hay is as good as any. It occasionally happens that where alfalfa hay of the best quality is fed immediately after the milk and grain, a calf will gorge itself to such an extent that impaction of the stomach may follow and prove fatal. When very palatable hay is fed, it is well either to supply it in limited amounts, or to keep it before the calves all of the time so that they will not gorge themselves at any one time.

FEEDING SILAGE.

Silage may be fed with safety to the young calf, and is very much relished by it. It is well to pick the pieces of ear out of the silage fed a young calf. In using silage avoid overloading the calf's digestive system either by offering even only a small amount or supplying it in the middle of the day.

WATER AND SALT.

It is a mistake to assume that a calf does not require water because it is receiving skim-milk. The calf should have water accessible at all times, as it will drink considerable despite the fact that it is receiving a large quantity of milk. It is also quite necessary that the calf be provided with salt. It requires salt besides its regular feed, the same as does an older animal.

WEANING.

Six months is a very good age at which to wean a calf, though there is no reason why the feeding of milk should not be prolonged beyond this time if skim-milk is abundant. A calf can be weaned in three or four days' time by gradually reducing the amount fed.

SCOURS.

Scours in calves are by far the most common source of trouble in calf raising. If a feeder is able to avoid the occurrence of scours in his calves, it is very seldom that other ailments will annoy. Scours in calves are of two kinds: White scours or scours from indigestion. The common cause of scours is indigestion or inflammation in the stomach. This may be brought about by a large variety of causes, but in any case the aim of the treatment should be to remove the source of the inflammation. As in most other ailments, half the battle in curing scours is to begin treatment as soon as any trouble is noticed. The calves should be watched closely and treatment administered upon the first indication of scours. Treatment should always begin by cutting down the ration, thus giving the calf a chance to rid itself of the irritating material. The milk should be cut down at least one-half, and in severe cases withheld entirely. In most cases after one or two feeding periods have passed, the calf will appear normal, and full feeding can be gradually resumed. In more obstinate cases it may be necessary to administer a physic of two or three ounces of castor oil given in a little milk. After a calf has suffered with scours, feeding should always be light for a few days until the calf regains its strength.

To avoid scours it is essential that the condition of the milk be controlled. Milk should always be fed sweet if good results are to be obtained. While it is known that healthy, vigorous calves may be raised on sour milk, it is not a good policy to try to feed it, because it is often impossible to obtain properly soured milk. Milk that has been allowed to stand around until it is half rotten is quite different from normal sour milk, though it may have a sour taste, and it is almost sure to cause trouble if fed to calves. Sweet milk is very much more dependable in quality, and should, therefore, be used exclusively.

Scours are often caused, no doubt, by a dirty condition of the feeding pail or trough. Clean milk or milk out of unclean vessels will cause trouble. It is best to give the calf pails that

same treatment and attention accorded the regular milk pails. They should be kept sweet smelling.

Milk should always be fed at a temperature near that of blood heat, or between 95 degrees and 100 degrees F. This is the temperature at which the calf would receive the milk if it were sucking the cow. Cold milk taken into a young calf's stomach so chills it that digestive processes are checked for a time, and digestive disturbances are liable to follow. Calves that have reached the age of two and one-half or three months may be fed milk somewhat colder than 95 degrees, but in any case the temperature should be constant, and a calf should not receive warm milk at one feed and cold milk at the next.

Probably the most frequent cause of scours is overfeeding. When properly fed the appetite of the calf will be more keen after taking its milk than before. It is impossible to satisfy a calf's appetite for milk without overfeeding it. Overfeeding at any particular feed is best guarded against by actually weighing the milk at each feed or measuring it in a vessel sufficiently small to avoid guess-work. Weighing is to be preferred, as the foam which occurs on separator milk makes accurate measuring difficult.

If several calves are being fed in the same pen it is best to have ties of some sort for them so that each calf may receive only its apportioned feed. For this purpose small, rigid stanchions are the most convenient. If the calf is kept tied until after the grain is eaten, there is less likelihood of it forming the habit of sucking other calves' ears.

On skim-milk fresh from the separator there is always more or less foam. Large quantities of this foam fed to a calf will cause it to become bloated, and may even cause sickness. The little that the calf will ordinarily receive with its milk will cause no trouble.

Dirty, muddy or uncomfortable quarters are favorable to scours. Calves should not be turned out into muddy or wet lots where they will not have a dry place in which to lie. In fact, young calves up to three or four months of age will thrive fully as well in a roomy, clean and well-lighted stall as on pasture. The young calf should be especially protected from quick changes in temperature and cold drafts, which are liable to bring on pneumonia.

VIGILANCE ON THE PART OF THE FEEDER.

One very important rule to follow in calf feeding is to be constantly on the lookout for disorders. Prevention of sickness is far better than curing it. The feeder should always observe the keenness of the calf's appetite and the character of the dung. At the slightest hint of any disturbance, the amount of milk should be cut down.—E. G. Woodward, of Nebraska Experiment Station.

How to Handle Dairy Utensils.

Dairy operations constitute a phase of agriculture to which science is rendering no small amount of assistance, yet there are a few little things in connection with the work, requiring only semi-scientific explanation, that are not executed generally to the best advantage. Keeping the utensils sweet and clean is a long, long stride toward good products. We have seen industrious dairymen labor conscientiously to do the work properly, but their efforts were robbed of their due reward because some step in the operation was not executed in accordance with the principles underlying that particular move. For instance, in a painstaking way boiling water is often poured into pails and crocks to rid them of remaining particles of milk or cream. The motive is good, but the manner of doing it is very unwise. If luke-warm water be used first it will cleanse the utensil much more effectively, and if this step be followed by a liberal use of boiling-hot water, then the container will be sterilized to some extent from all germs which might be lurking in obscure places. The peculiar effect of hot water upon the milk or cream makes it difficult to remove it from the hollows or creases in the vessel. This principle applies to all dairy utensils.

In preparing a churn for use hot water should be used first. The churn should be well scalded, and then cooled down before using. The water of high temperature will destroy the molds that may be growing on the wood, and it will close the pores of the wood so the cream or butter will not adhere to it. By cooling the churn the temperature of the cream will not be raised while churning and yield soft, greasy butter. After the butter has been taken from the churn rinse with warm water to remove any buttermilk that might remain in the pores of the wood. Follow this with hot water to remove any fat that might have lodged within. It is never well to use any soap or soap powders in the churn. Dairy washing powders or lime water are preferable. To keep the churn free from taints or odors, a small handful of lime is often allowed to remain in some water in the churn. A small quantity of lime water in the last rinsing is also beneficial. One of the essentials in good butter

making is to allow no odors or taints to exist in any utensils connected with the operation. The proper use of deodorants and water will result in an improved product.

HORTICULTURE.

Apple Production.

Unless we are mistaken there will be less said this winter about over-production of fruit than has been the case during the last two or three years. Nothing changes the critic quicker than a change of conditions. A bumper crop of apples in 1914 set every one to talking over-production and low prices. A short crop in 1915 with prices ranging high has served to put a quietus on the cry. We still contend that there is very little danger of over-production of the best varieties of apples. Those who have watched the markets this fall have noticed that Northern Spys, McIntosh Reds, and Fameuse have been unusually high. It is simply a question of quality. It is seldom, indeed, that any market is glutted with the very highest quality product, no matter what class of farm output this is, and it is just as true of apples as it is of any other farm produce. Seasons of big crops and low prices have a tendency to cause those having orchards, but who are not orchardists, to neglect their trees and each year of neglect means fewer apples in the future. We have noticed many orchards this fall in which pruning has been sadly neglected, and through some of the young plantations cattle and sheep were roaming, and the trees were rather a sorry sight. The man owning this class of orchard will not very soon be a great factor toward over-production. The point we wish to make is that there are three or four or five varieties of apples which will sell at a price which will return a profit to the growers whether production is high or low. There is always premium placed on quality, and the man who plants the best varieties, and through cultivation, spraying, fertilization, and careful picking and packing puts the very best quality of fruit on the market, will surely find ready sale. It is too bad that orchards are neglected because of the cry of over-production; because, in some instances, of a poor selection of varieties which might be overcome by grafting; and because, as the case with the general run, of sheer carelessness. We would not be afraid to plant an orchard in 1916, and if we were doing so we would make an early selection of the stock before it had been culled over. In planting we would not put in trees older than two years of age if we could possibly get them of this age.

Seeds.

On different occasions we have seen roots grown from home-grown seed, and in almost every instance they compared favorably with other roots grown from imported seed. There is a danger that seeds may be dear, owing to scarcity, next spring and the spring following. We would advise growers who can do so to select medium-sized roots of typical shape of the variety and sound, and put them away in a cool end of the cellar ready to be planted next spring, to produce seed for the following year; and we would advise also that purchases of root and garden seed be made early in the season, as the best selection is then available, and there will be less danger of disappointment, due to not being able to obtain desired varieties and new virile seed.

Fruit Growers' Convention.

The dates for the annual meeting of the Ontario Fruit Growers' Association have been set for January 19, 20 and 21, at the Carls-Rite Hotel, Toronto. Some good addresses are on the program, and lively discussions are promised. No fruit grower can afford to miss this convention, as matters of importance are always brought up in these annual meetings. Remember the dates.

POULTRY.

The Early Bird Digs Up the Money.

Editor "The Farmer's Advocate": I would like to have a dollar for every time I've answered that question. In order to show that there is, I propose to tell the story of a big English farm on which I have been lately working, and which may encourage somewhat some of the doubting Thomases.

The farm itself is of 80 acres. It stands on the low hills overlooking the Lancashire coast of the Irish Sea. It is wind-swept. The soil is heavy clay. Just south of the famous English Lake District are the hills of Cumberland and Westmoreland. It gets its more than full share of the rain that descends so plentifully upon the said hills. There is not an acre of arable land on the farm; all is meadow and pasture, yet

it supports a pig; 2 horses, these last the year the study of his incubator-house. A long, low, of the surface of 150, 250 and total of 12,000 hatching season one man to 1 January, and chicken factory; the chicks will large brooder-fer they have the business w order to save transferred from which a hurri and over the was thrown to came outside very laborious guard against when funds pe the ordinary h in each house. a big, special in which the c about two mo placed in color large pasture when the pulle ter quarters, breeders or for

The laying 40, each divide one holding al fowls. They fronted with Dropping board of sand, over six inches at l chaff, and as it becomes heav give them mor the pens in bar tanks mounted over the top,

All the birds and trap-nested White and Black Some of them eggs in their fin on the place. investment of \$ ness. Next ye There is no Simplicity cha But mind you, knocking around out of late-ha chick that dig is run on a syst admire the syst possible. The well handled. method and ha be got by a similarly.

Lanark Co.,

During recent has had the eff geese and other per pound, and for turkeys. T practiced very owy, no doubt dency for them crops. Howev overcome by the furnishing the birds.

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CULTURE.

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it supports about 45 head of cattle; 60 sheep; 20 pigs; 2 horses, and from 4,000 to 5,000 hens. It is these last that are the mainstay of the farm, and this year the owner has realized a profit of between ten and fifteen thousand dollars net. A study of his methods may be of interest. The incubator-house is the beginning, as it should be. A long, low, one-story building, most of it below the surface of the earth, contains incubators of 150, 250 and 400 egg capacity that will hold a total of 12,000 eggs at one time. During the hatching season it will take the whole time of one man to look after them. Eggs are set in January, and from then till June this great chicken factory is in full blast. After hatching the chicks will next season be transferred to a large brooder-house, which is not yet built. So far they have been handled in two ways. When the business was started, only four years ago, in order to save initial expense, the chicks were just transferred from the incubators to large boxes in which a hurricane lamp was placed as a heater, and over the front of which a curtain of sacking was thrown to keep the draft out. The chicks came outside to run about. This method was very laborious, as great care had to be taken to guard against sudden changes in the weather, so when funds permitted, large hovers were placed in the ordinary hen-houses, and 400 chickens raised in each house. Now, to save still further labor a big, special brooder-house is being constructed in which the chickens will be kept until they are about two months old. After that they will be placed in colony houses on the free range of a large pasture field, there to remain until fall, when the pullets will be transferred to their winter quarters, and the cockerels sold either as breeders or for market.

The laying houses, of which there are about 40, each divided into two parts, are of two sizes, one holding about 40 and the other about 75 fowls. They are all gable-roofed and open-fronted with shutters for the stormy weather. Dropping boards are provided and the floors are of sand, over which chaff is put to a depth of six inches at least. The sand works into the chaff, and as all grain is scattered in the litter it becomes heavier for the birds to scratch in and give them more exercise. Food is carted round the pens in barrows, water is drawn in 30-gallon tanks mounted on wheels, a coarse sack thrown over the top, preventing splashing.

All the birds kept are pedigreed, bred-to-lay, and trap-nested. The breeds are Buff Orpingtons, White and Black Leghorns and White Wyandottes. Some of them have egg records of well over 250 eggs in their first year. There isn't a show-bird on the place. At present the plant represents an investment of \$25,000, all made out of the business. Next year \$10,000 more is being put in. There is no secret in this man's success. Simplicity characterizes all the arrangements. But mind you, he does not keep any old hens knocking around, nor has the money been made out of late-hatched chickens. It is the early chick that digs up the money-worm. The place is run on a system. I, who have worked on it, admire the system. Labor is saved as much as possible. The stock is bred right, fed right and well handled. The secret of success has been just method and hard work, and the same results can be got by any man who will apply himself similarly.

Lanark Co., Ont.

W. J. FLETCHER.

Profit in Geese.

During recent years the high price of turkeys has had the effect of increasing the demand for geese and other fowl which sell at a smaller price per pound, and which make very good substitutes for turkeys. The raising of geese has not been practiced very extensively on Ontario farms, owing, no doubt, to the fact that there is a tendency for them to get into and destroy growing crops. However, this may be fairly easily overcome by the use of "pokes" and the furnishing of plenty of water for the birds. The man who has running water on his place or a pond nearby where the geese may go at will, will find little trouble in raising this class of poultry, and, being more easily raised than other poultry, many might find it profitable to give the goose a fair trial. Her meat is good and her feathers are more valuable than those of any other domesticated bird.

It is time now to make the selection and mate up the birds which will be laying early next spring. As a general thing, one gander is mated with from two to four geese. More than four geese should not be mated with one male bird, and the mating should be made as soon as possible, for, if the geese are comfortably housed and fairly well fed, they should begin laying in March. By comfortable housing we do not mean that they should be shut in. They should have a warm place at night, or at least a pen free from drafts and well ventilated, and should be allowed out for free range around the farmyard during the day. There will be very few days during the winter that geese, if they have free access

to the outside yard, will not come out of their pen for a short time at least. They may be very successfully wintered on grain with a liberal supply of pulped roots. In fact, geese will fatten on pulped turnips, and where these are used in conjunction with some such grain as peas they will fatten very rapidly. We have known a breeding flock to be wintered year after year on nothing more than pulped roots, and the grain they would pick up when the hens were fed. They were wintered in the same pen with the hens which were fed mixed grain—barley, wheat and oats, twice daily. Of course, the geese did not have much opportunity to get much of this grain, as it was scattered in the litter and the hens very quickly worked it out.

As spring approaches nests should be pro-

duce a second lot of eggs which she should be allowed to incubate.

A good way to keep the eggs is to place them in a cool room of even temperature, stood on end in a large pan of bran or chop. The eggs should be turned at least once each day, some prefer turning twice daily until they are set.

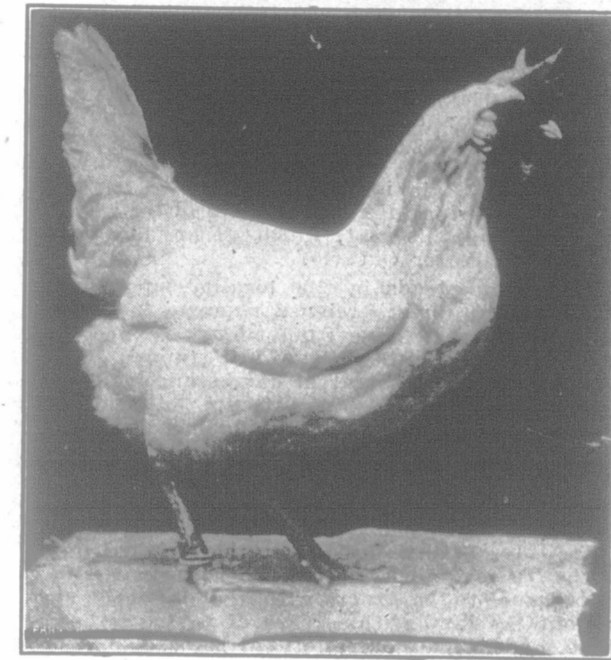
When the young birds hatch they will require feeding for a short time, but should get nothing the first day, but the grass which they will pick. After that for a short time they may be fed two or three times a day on moist mash composed of shorts or mixed, ground grain. They should have access to plenty of grass, and if so, as soon as they are big enough to forage well will pick their own living and grow well during the summer, especially if they have access to water.

They may be quickly fattened up in the fall, or, after full grown, at whatever season of the year the breeder wishes to dispose of them. They should never be sold thin in flesh, as it will always pay to fatten them, and this, as previously stated, may be done on cheap feed. It will require some care, perhaps, that the old geese do not get too fat during the winter. Do not give them too much grain, and see that they get out doors every day. There is a little money to be made from a small flock of geese under average farm conditions usually. One gander and two or three geese make flock enough. Never allow two ganders in the same flock.

FARM BULLETIN.

Toys.

By Peter McArthur.



Lady Eglantine.

The champion egg-layer of the world, with 314 eggs in 365 days.—Underwood & Underwood.

vided in good time, and in a protected place where the goose will not be disturbed by stock when sitting. A barrel turned on its side with plenty of fine straw will make a fairly good nest, but it is better to have provided covered boxes placed where they may be used as an incubating place by the geese year after year. It requires some watching, when the geese begin laying, that each individual goose selects a nest of her own, because when it comes time to set the geese no trouble should ensue over nests.

Some breeders leave the first egg laid by a goose in the nest as a nest egg, claiming that the first egg rarely hatches, others take all the eggs to the house each day as hatched. A goose generally lays every other day during her laying period. Occasionally one will lay every day for a short time. Some practice taking the first clutch of eggs away from the goose and setting them under hens. When this is done the goose will generally commence laying again, and pro-



A Farm Flock that Paid.

never give them more than a spasmodic lease of life. They are a nuisance from the time they come into the house. Each of them should have an engineer with it to keep it going. They are far beyond the capacity of the children. And the children really do not enjoy them except in the first happy moment when they open the gift package and see the gaudily painted contraptions. And besides being useless they are usually the most expensive toys of all.

As an observer of children I am convinced that they do not care for toys that do not require the use of their imaginations. The little girl with her doll makes believe that it is really alive, and talks to it as if it were a baby or a companion. Similarly they make believe that their bears and sheep and other solidly-made animals are alive, and get no end of serious enjoyment out of playing with them. But the practical toys are make believe on the part of the toy-makers, and the children are robbed of their chief delight. Even popguns and bean shooters that will work for a little while lack the charm of the home-made article. Last week two boys spent several days making bear shooters of their own contrivance from pieces of pine that they whittled into shape, and with pieces of the spring of an old alarm clock. They were so taken up with their work that they kept at it from morning till night, and insisted on bringing their crude toys to the table with them. They were so crudely made that they would not shoot except by a system of throwing the beans that was really a kind of make believe. And when they took those toys to school with them they were envied by all the other boys, and left-over pieces of the clock spring were sold for fabulous amounts of boy bric-a-brac. Last night they received a toy cannon with a set of lithographed soldiers and seemed very happy for a little while, but by nine o'clock this morning it was brought to me to be fixed, and was found to be hopelessly beyond repair. Now, they are back at their own shooting contraptions and enjoying life again. While watching them I cannot help reflecting how seriously they are handicapped in their work. When I was a boy there were hoop skirts made of "dandy" steel springs that could be fitted into a piece of alder to make a pea shooter that was guaranteed to lift a boy at the other side of the school-room out of his seat if the pea struck him on a tender spot. Owing to the changes of fashion the best the boys can get nowadays is a clock spring, but they manage to enjoy themselves with it all the same. And I contend that in making their own little toys of this kind they are learning to use tools, and to use their hands in a way that is in line with the best educational ideas.

I have heard it argued that mechanical toys interest the children in mechanics, and are helpful in that way. It may be so, but I regard the point as not proven. Furthermore, I hold that make-believe and personal attempts to make machines are a very real help in this way. I have a very distinct memory of a day spent with a boy chum who was all the time inventing engines that were run by the wonderful power of make-believe. He induced me to spend the day with him on the promise that he would make a really truly railway engine. Although it all happened over forty years ago I can still remember all the details of that wonderful engine. We cut a piece off an iron-wood pole for the boiler, and thin pieces cut off the same pole served for wheels. We fastened on old-fashioned smoke-stack on top, nailed the wheels on the side of the boiler, and made a track on an old board. After putting together our engine we spent a happy afternoon making believe that we were hauling a long train on our stationary track, the cars being nothing more than a row of bricks. Of course, it was all very childish and foolish, but it meant so happy a day that I have remembered it through all these years. Of course, it did not make a mechanical genius of me for my interest was only for that one day, but the boy who made the engine kept playing with his make-believe engines until he was old enough to work with real engines, and now he is an engineer on an ocean liner. I do not think the faculty for being a master engineer was born in him, but it was developed by his make-believe games with engines of his own making.

Now, I do not want to give the impression that I am opposed to toys, or that I am getting so "thrifty" that I do not want to buy them for the children. There is nothing I would regret more than to have the Beaver Circle down on me for justifying "tightwads" who would like an excuse for not giving toys. But I hold that the money spent on the ordinary mechanical toys is wasted, and gives no real satisfaction to the children. The best possible present for children is tools with which they can make things for themselves. . . . At this point I was interrupted by a request to go to the door. I was asked to view a workmanlike little sleigh that

had been made to take the place of the steel frame little sleigh that was broken while coasting yesterday. It was secretly made in the granary, and judging from the delight with which my approval was received the making of it gave as much pleasure as will ever be gained from its use. As the runners are made from two solid pieces of scantling it will stand any amount of rough usage. It may not be as fine as a store sleigh, but it will last longer and will slip down hill just as readily. And having made it successfully the boys will not be afraid to try to make other things. They are learning to help themselves as well as having a good time.

The Call of the North.

Editor "The Farmer's Advocate":

There may be many who have reached the half-century mark, physically fit and mentally capable, yet dissatisfied with their present environment or occupation, to whom pioneer life would appeal; as well as to those who are younger. Thirty years or so of sedentary occupation does not disqualify one for the work required to attain independence, and a very appreciable position after a few years of work clearing a farm in this part, which we are pleased to designate—Greater Ontario.

Many homesteads in this locality, upon which the primeval forest reigned supreme four years ago, this summer have from twenty to over one hundred acres (with only a few stumps) under cultivation to the extent of harvesting grain, and roots showing astonishing results in yield, although in many cases no plowing has been done.

My personal experience is by no means a sample of what can be accomplished in a short time, but it may give some idea of the possibilities of this great north country. In July, 1913, I arrived at the terminal point of the Timiskaming & Northern Ontario Railway—Cochrane—to be exact, with the object of spying out the land with a view of taking a homestead, and in due course located a place some few miles from town. On it was erected a dilapidated "shack", and two acres of what was called "clearing" surrounded this edifice. Obviously the first thing to do was to get this "building" into some sort of habitable condition. To adapt oneself to circumstances is essential under such conditions. A box can be made to do duty for a table, likewise a cut off a log for a seat, but for real comfort give me a bed made with "spruce tips" laid over small branches. It reminds one of the sweet-smelling lavender our mothers laid away their linen sheets in.

Unfortunately our timepiece was not on active service, so that daylight had to be our guide the following morning. It is quite light at three o'clock, and at that hour, in ignorance of the fact, my son and I had breakfast ready. The first day was fully occupied in trying to make a shack 12 feet by 14 feet to hold our effects, and at the same time leave room for ourselves, but considerable can be accomplished in a day of 19 hours.

The dry summer of 1913 gave every opportunity for building operations, and by October a snug little cabin 25 feet by 28 feet had come into existence with an "upper" floor. Not having had any previous experience in log building, it was a matter of much thought and much time, not to mention "incidentals." A finger caught in conjunction with a 28-foot log is prone to elicit a few remarks.

Plastered with good yellow clay taken from the great clay belt and a generous-sized box-stove installed in our "roomy" little home, there seemed to be no reason to dread the awful winter I had heard so much about. A few plants flourished in the window all winter. Talking about winters, they are a revelation to old Ontarians, dry, bracing, sunshiny, and conducive to activity, and although the mercury does drop to 50 degrees below zero, these occasions are rare and by no means alarming; absolute calm and a dry atmosphere at this low temperature is not as bad as zero under different conditions, neither are the winters wearisome in length. Last November there were light snowfalls, but on the 26th of that month the country still retained its early fall appearance, clover being quite green and fresh, no snow remaining on the ground until December. Spring is somewhat later, but usually early in May seeding is commenced, and let me say here, the long summer days will account for the wonderful growth of things planted and the rapidity with which they attain maturity.

Naturally, the country is densely wooded, the size of the trees varies greatly, as in the higher and rolling land spruce, balsam, poplar and birch grow to a great height, and 18 inches or so in diameter in some cases, while in the lower and flat lands the size is much less, but the process of clearing the land is not an arduous task in any case. The thing to do is to keep at it, and use good judgment in felling and burning.

One cannot help feeling encouraged by the results of efforts made to wrest from the virgin forest, the productive soil of the "Clay Belt."

Ten months after we had cut down the first tree a hoe was purchased and small quantities of seed of many kinds were planted. Also a few plants were set out. In spite of the very dry summer of 1914 the possibilities of successfully growing a large variety of garden and field products were proved, and, too, on land never plowed and on which the ashes of burned trees were scarcely cold. The inspiration was great, and a more determined attack with axe and saw was decided upon.

This summer was ideal. Unlike older Ontario, the rainfall was not excessive. Owing, perhaps, to the encouragement received the previous year, some twenty acres had been chopped, burned over, and some of it even plowed. Seven acres were sown with barley and oats; half an acre of fall wheat had been raked in the previous September; red clover followed the grain. The harvest results need not be given in detail, as they were on a par with the majority throughout this part of Ontario, and I need hardly say have daily strengthened the determination to have forty acres down and at least twenty absolutely clear in 1916. The loss of our home, caused by a defective stovepipe on Christmas Eve was an unpleasant incident in pioneer life, and led to some weary days while building another log house, not to mention the loss of a Christmas dinner complete which had just arrived.

There seems to be a want of forethought amongst those coming to this North Country to take up land. Bringing a family to unknown conditions is pardonable, but to arrive with a car load of various kinds of stock, even with some capital to go on with, the result can only be loss. After housing arrangements are made, the feed problem remains. Prices are high, and transportation over new roads for long distances, after the first supplies are exhausted must be met, the inevitable result is failure to make good.

To get revenue as soon as possible is essential to the majority of those who come here, and, provided the object of clearing a farm is not defeated, there are fair opportunities for making good wages. Part of the time which can be spared from the all-important object of getting the land into a state of cultivation, can be employed in making "pulpwood," cutting, peeling, and piling in the summer and drawing to market in winter. Thousands of cords have been taken out of the northern woods, but there are millions left. For some years to come, pulpwood will provide many settlers with money, other things being equal. Should the larder be depleted and hard times bring the possibility of short commons, the fat moose roams the country. The grouse and partridge are foolishly tame, and countless runways made by the large hares mark the winter snows. Only a few feet of wire is usually enough to snare many rabbit pies.

Road making goes on during the summer. Settlers can find employment at the Government camps at fair wages. Under the direction of the road commissioner the country is being opened up more and more each year, and that a great future lies before the people of the North Land is undoubted. In the meantime conditions are far from hard, and "Canada in the making," in this part at least, is all right.

New Ontario. W. H. PARSONS.

The Great Smithfield Show.

A SHORTHORN WINS.

The 117th Show of the English Smithfield Club can be called one triumph for the Shorthorn, and another for His Majesty King George. The event has just been held at the Agricultural Hall, Islington, where crowds have flocked to see the 241 head of cattle, 130 sheep and 93 pigs contesting for the prize monies which ran to well over \$20,000. The King's success were numerous. In the Devon classes thirds were won with yearling and two-year-old steers, and a first with a yearling heifer. The premier yearlings, Hereford heifer, the second two-year-old, the fourth yearling steer, and the third two-year-old all came from Windsor. In the Shorthorn section firsts were carried off with a yearling steer and a two-year-old heifer, and a third with a two-year-old steer. Not only was the breed special prize won, but the trophy offered for the best steer under two years and that for the best heifer were captured. From Sandrineham the first and third two-year-old West Highland bullocks were sent, as well as the second ox and the premier heifer. The breed cup was won with a Dexter heifer, the first and second for two-year-old steers, and the leading honor for yearlings. Several cards were carried off in the small cross-bred classes, including the cup, a first, a second, and three thirds. Third for lambs and second for wethers were won by Southdowns, and a few "cards" in Berkshire pigs.

But there was a great success in store for His Majesty, and that was the supreme cattle championship. The King won the champion plate of 100 guineas in the cattle section for the best beast in the show, with the Shorthorn heifer Windsor Gem, a beautiful, level roan, bred at Windsor, and

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sired by Proud Jubilant. The animal has already had much success in the showyard, having been champion female of her breed at the Royal Show at Nottingham in June. Still, Windsor Gem only won the championship after a long contest, and by the casting vote of the referee. Her chief opponent was J. J. Cridlan's massive Aberdeen-Angus steer, Stamp, which a few minutes earlier had narrowly won the steer championship from Sir Herbert Leon's Shorthorn bullock which beat him at Norwich.

For the first time the Leicester, one of the oldest of our breeds of sheep, won the Prince of Wales' Challenge Cup, the highest honor in the sheep section. The winning pen of wethers were bred and fattened by E. F. Jordan, and they successfully encountered the opposition of a fine pen of Hampshire Down wethers sent by Captain Morrison.

The champion pen of pigs were cross-breeds, exhibited by Arthur Hiscock, the cross being the Middle White on Berkshire. Julius Fricker's Berkshire took the Champion Plate offered for best pig shown singly.

Excellent quality characterized the Shorthorns. Several came from Norwich Show, including the reserve champion. This is Sir Herbert Leon's Bletchley Promise, the heaviest in the older steer class—that is above two and not exceeding three years old—turning the scale at 18 cwt. and 6 lbs., at two years and eleven months. In younger steers the King won with the White Carol, by Proud Jubilant. He has good shape. He scaled 13 cwt. 2 qrs., 20 lbs.

In young heifers Miss Alice de Rothschild's Waddesdon Isabella won, scaling 13 cwt., 12 lbs. In older heifers the heaviest was the champion of the show, i.e., His Majesty's Windsor Gem, the best Shorthorn heifer at Norwich, and registering a couple of pounds over 16 cwt. at just under two years and ten months. With great depth, capital hindquarters, and well-sprung ribs, Windsor Gem has a lot of character. Her show-yard wins as a yearling and as a two-year-old make a brilliant list, including the Royal, the Royal Counties, and the Bath and West.

A strong feature of the show was the collection of Aberdeen-Angus cattle, with an entry of 35. A very interesting incident was the meeting of the Norwich and Edinburgh champions in the same class, the older heifers. Whatever chances J. R. Findlay's Peoria IV., the Edinburgh victor, may have had of winning the London championship were dissipated by the decision in the class competition. About six weeks younger than the Norwich champion, which was J. J. Cridlan's Eve of Maiseamore, Peoria IV. weighs about two quarters less, namely 15 cwt. 1 qr. 2 lbs., at two years nine and a half months. Very symmetrical, well finished, and with a wealth of flesh, this daughter of Ebon of Ballindalloch had nevertheless to yield to what the judges considered the superior merits of Eve, a well-fed animal. Cridlan also won third prize with a rather older Scotch bred heifer, Burn Kathie. Younger heifers were most numerous in this section and of high quality. J. Stewart Clark, South Queensferry, who had to be satisfied at the Scottish capital with fourth place for Ebra III. of Dundas, here went to top. She was one of the lightest in the class, but her quality was apparent. In a strong class of young steers J. H. Bridges secured premier award with one that was second at Norwich—Jigger, evenly fleshed. The breed prize winner, Cridlan's Stamp, first among the old steers, was a well-made, heavy beast, turning the scale at 21 lbs. under 18 cwt. in the last week of his three years.

Highland cattle made a strong as well as picturesque show. Lady Ogilvy-Dalgleish showed a fine three-year-old steer that got the breed prize for which the King, with a two-year-old steer, was reserve. His Majesty likewise was awarded a first, a second, and a third in this section, and the Earl of Durham obtained second prize for a heifer two and a half years old.

As usual Cross-Breds were one of the most valuable sections of the show. The special was awarded to one of Sir Richard Cooper's steers, a blue-gray, a cross between an Aberdeen-Angus and a grey-poll cross cow. A first cross, J. Douglas Fletcher's Shorthorn-Angus steer, was reserved for the special. A good class of young first crosses was headed by the Earl of Durham's Shorthorn-Galloway; another North Country animal, an Angus-Shorthorn, exhibited by Lord Allandale, being second, and one of Fletcher's, of the same cross, third. With an Angus-Shorthorn steer, two years and ten months old, and weighing 17 cwt. 8 lbs., Andrew Brooks, Tranent, N. B., won. Lord Fitzhardinge's Shorthorn-Angus and Lord Durham's Shorthorn-Galloway were second and third respectively. In sheep, E. F. Jordan's championship Cup, won with Leicesters, was particularly gratifying to supporters of long-wools. This exhibitor has now won the breed cup for Leicesters or Border Leicesters 23 times at the London Show. The breed prize for Lincolns, and also the reserve place, were secured by O. F. Mosley, Sleaford, with the only two pens he showed. John McDowall, Kirkcudbright, and J. Stewart Clark,

South Queensferry, were the first prize takers with Cheviots, the former getting the special prize for the breed, and also taking first prize with mountain breeds, along with George Findlater, Lanark.

In pigs Alfred Brown, Southampton, obtained the special prize for Middle White, while R. E. W. Stephenson, Liverpool, secured corresponding trophy for Large Whites. The prizes for the Lincolnshire Curly-Coated breed were shared by Frederick Bowser and H. Caldwell. With his Large Blacks Terah F. Hooley, Dry, Drayton, took principal honors. Arthur Hiscock and James H. Ismay won first prizes with Berkshires, the former getting the breed prize, while F. A. N. Newdegate, M. P., and B. T. Philip, were leading winners with Tamworths. The plate winners for two pigs was Hiscock—showing cross-breeds—a Berkshire belonging to Julius Fricker, being best single pig.

A sale of live cattle on behalf of the ruined farmers in France raised over \$10,000 in an hour. Four head made \$1,500 apiece, and their buyers were Messrs. Armour & Co., Swift & Co., Morris & Co., and Archer & Co., packers on the other side of the Atlantic.

The King's champion heifer, Windsor Gem, showed an average daily gain of 1.76 lbs. in her feeding. Her reserve, Cridlan's A. A. steer, came out at 1.86 lbs. Best of all, however, was the King's young White Shorthorn steer Carol, whose age was 687 days, whose weight was 1,532 lbs., and whose average daily gain was 2.23 lbs. He was not sold at the Show, so we should see him in the aged class at next year's Smithfield Show, and he is a rare good sort into the bargain.

The champion carcass was that of an Aberdeen-Angus heifer, exhibited by the Duke of Portland, one Maree, by name, aged a year, nine months and one week, sired by Estate of Towie Moor, dam Mary of Stripeside 2nd by Prince Carton. Her live weight was 9 cwt. 3 qrs. 4 lbs., and her dead weight 88 stones of 8 pounds per stone. The champion sheep carcass was Captain Dermot McCalmont's Southdown, one that alive scaled 1 cwt. 7 lbs., and had a carcass weight (less head and feet) of 8 stone 4 lbs. (8 lbs. to stone).

The Portland Angus carcass was sold for £81 8s. It was put up twice in aid of the Allies Relief Fund; the first time fetching eleven shillings per stone of 8 lbs., the Duke buying it in and then it was offered again and made 7s. 6d. per stone.

The champion pig carcass, one of Wilfred Buckley's Berkshires, 4 months old; the live weight of which was 33 qrs., and the carcass weight 8 stone 2 lbs. (8 pounds to one stone). London, Eng. G. T. B.

The Montreal Ayrshire Sale.

There were a number of good bargains taken by those in attendance at the Joint Ayrshire Breeders' sale, held in Montreal, Dec. 16, when 80 Ayrshires from the herds of the Hon. Senator Owens, Montebello, Que.; W. F. Kay, M.P., Phillipsburg, Que., and the Vaudreuil Dairy and Stock Farm, Ltd., Vaudreuil Station, Que., were offered. The highest price of the day was \$280 paid by R. R. Ness, Howick, Que., for Ravensdale Snowdrop, a six-year-old cow, sired by Comet of Lakeside. G. McMillan, of Trout River, took the cow Woodroffe Gurta 2nd at \$250, the second highest price of the sale. She is a nine-year-old cow, and a prize winner at Sherbrooke. There were a number of young things sold, and altogether the sale was quite a success. The following is a list of animals selling for \$100 or over with their purchasers:

Lady of Riverside, Jas. Bain, Iachute	\$135.00
Snowdrop of Riverside, C. H. Godfrey, Montreal	175.00
Effie of Riverside, A. R. Binning, Sutton Junction	180.00
Roxy of Riverside, A. R. Binning	105.00
Tosca of Riverside, G. A. Benoit, Mount Johnston	110.00
Regent of Riverside, G. A. Benoit	100.00
Estelle of Riverside, Henry Miles, Pt., Fortune	122.50
Victoria of Riverside, J. Edgar Beauregard, St. Damasa	135.00
Heather Bell of Glenora, Gilbert McMillan, Trout River	127.50
Elsie of Ravensdale, Jas. Bain	100.00
Clarice of Ravensdale, G. McMillan	127.50
Woodroffe Gurta 17th, G. McMillan	250.00
Sheila of Ravensdale, Henry Miles	150.00
Morton Mains Caterina 3rd, R. R. Ness, Howick	225.00
Little Kilmory Gwendolne 3rd, Frank Byrne, Charlesborough	240.00
Ruth of the Willows, G. McMillan	162.50
Ravensdale Snowdrop, R. R. Ness	280.00
Ravensdale Primrose, Henry Miles	200.00
Ravensdale Georgia, J. Edgar Beauregard	102.50
Ravensdale Royal Gift, Henry Miles	115.00
Snowflake of Millbrook, Henry Miles	120.00

Give the Commission Your Opinions.

The Economic and Development Commission for some days has been in session in Ottawa, during which time it carefully considered a great many very excellent statements, from various associations and many individuals throughout the Dominion, made in response to its request at the first meeting in November. The Commission has adjourned to meet again in Ottawa, the latter part of January, when it is expected that a very considerable further mass of information will be available.

The Commission is desirous of securing information on all matters dealt with in the Order-in-Council constituting it, and having given publicity to this fact many communications have been received directing its attention to such subjects of public interest and urging that enquiry should be made as to the following:

1. The collection and publication of accurate and reliable statistics relative to the agricultural production of the Dominion. This decision is due to the many and persistent demands for the establishment of a system whereby producers may secure definite information, not only as to the yields of grain and other crops but accurate figures as to live stock production in the various provinces with a view to the prevention of misrepresentation and market manipulation by interested parties.
2. The inauguration of some comprehensive plan whereby farmers may obtain more readily and less expensively than at present, long and short term credits for the carrying on of farm operations, and the further development of their resources.
3. The application of the principle of Government control, to public markets, stock yards and other like utilities, with a view to safeguarding the interests of both producers and consumers, possibly by the extension to such utilities of the policy now in force in the case of cold storage warehouses.
4. The whole question of co-operation in connection with production, marketing and consumption, and the advisability of securing simple and uniform legislation providing for the establishing and management of co-operative societies.
5. The question of settling the vacant lands of Canada, and the future policy respecting immigration and colonization in this connection. It is proposed to carefully consider the suggestion that returned Canadian and British soldiers be afforded an opportunity of settling on the land.

The Commission invites the hearty co-operation of the Canadian public in the work which it has in hand. While, as above stated, it is taking steps to secure the assistance of individuals and organizations likely to be able to furnish information of value on these and other matters coming within the scope of its work, it is to be understood that any person desirous of presenting written statements or appearing personally before the Commission, will be accorded every reasonable opportunity of so doing. Communications in this regard addressed to the Secretary, 22 Victoria St., Ottawa, will receive prompt attention. W. J. BLACK.

The Kingsmill Sale.

A fairly large crowd attended the sale of Shorthorn cattle, the property of T. F. Kingsmill, held at Bellevue Farm, London, Dec. 21, but bidding was none too brisk and some bargains were obtained by purchasers. The cattle were not specially fitted for sale, but were in fairly good breeding condition. The highest price of the day was \$150, paid by the Wm. Weld Co., for the two-year-old heifer Queen Quality and her bull calf. Following is a list of the animals selling for \$100 and over with their purchasers:

Belleve Rose, Wm. Nairn, St. Mary's	\$125
Sitty-on's Gloster 26th, John Graham	115
Ailsa Craig	115
Belleve Gloster, Wm. Nairn	110
Belleve Sister, W. A. Leckie, Ilderton	115
Forest Lady and calf, Wm. Nairn	120
Zenith, Robt. Mitchell, Ilderton	135
Fine Grove Maid, Geo. Barclay, Poplar Hill	102
Glenmon Girl, R. J. Worrall, London	126
Lakeside Lass, W. S. Morgan, London	110
Silkoline, F. A. Sifton, Ettrick	104
Daisy and calf, W. Moir, Ilderton	132
Queen Quality and calf, Wm. Weld Co., London	150

Holstein-Friesian Annual Meeting.

The 33rd annual meeting of the Holstein-Friesian Association of Canada will be held in the Canadian Foresters' Hall, 22 College St., Toronto, Ont., on Thursday, February 3, 1916, at 9.30 a.m.

Our Scottish Letter.

November was a strange month. An unusually hard frost was experienced about the middle of the month, and retarded seasonable labor in the fields, while it facilitated carting of manure on to the fields, and the cleaning out of cattle courts, or reeds as they are termed in some parts of the country. In an ordinary season, with labor fairly plentiful, and the work of potato lifting and turnip storing fairly well advanced, a frost of a fortnight's duration in November would not be unwelcomed by farmers, but in a season like the present, with a shortage of labor almost everywhere, and in some districts painfully acute, such weather as came in the middle of last month was almost disastrous. Potatoes still in the soil were rendered almost useless, and the feeding value of turnips was greatly reduced. As it is even now in the second week of December, many tons of potatoes are still in the soil, and the prospects of their being lifted at a profit are remote. There is a feeling of depression abroad in connection with the War, which affects everything, and no one has the least idea as to what is going to happen next. The one thing about which there is a measure of certainty is Great Britain's supremacy on the sea, and the fact that there is in these islands abundance of food for man and beast. Indeed, so great is the abundance that one wonders sometimes whether it would not be better were there a scarcity. People would then be more careful and economical, and less money would be sent out of the country for that which might very well, to a great extent, be produced within it. It is not pleasant to read that, while our exports for November show a substantial increase over those for the corresponding month of last year, we expended over £27,000,000 on imports as compared with a normal expenditure of about £11,000,000 in times of peace. It is certain that much economy is being practiced by those in the higher ranks, and the great middle class, but the artisan population have up to this time been expending their enhanced war wages with startling prodigality, and the drink bill, in spite of restrictions, has, in the Clyde Valley, during the past month, actually increased. The warning of the Chairman of the Cunard Company that Great Britain must choose between bread and beer, has so far not been much heeded. But until it is heeded, there is not much prospect of a sustained effort to win the war by frugality in eating and drinking, and wholly unnecessary pleasures.

November is the great month for making engagements in agricultural labor, and this year the advance in wages has been something abnormal. Throughout the areas in which the absence of efficient men is most keenly felt, ploughmen have been getting wages equal to those being earned by artisans of the most skilled type. In one market in the northeast a young, unmarried man asked £40 for the six months, with all found in the way of meat and lodgings. He did not get it, but he got much nearer it than any body in the same market ever got before. After to-morrow, when the present vigorous recruiting campaign is due to terminate, it will be more easy to determine how the winter and spring work is to be faced. Meantime, all classes of farm servants have been "starred," i. e., they are not to be enlisted for immediate service or at all under existing conditions. The difficulty is not with the servants, but with the younger farmers and farmers' sons who are "indispensable" for the carrying on of the work of farms. These have not been "starred," and, therefore, are not ipso facto exempt from service. They must be attested, and then go before the special tribunal which is to decide the question whether they are "indispensable" or not to the work of the country as it stands. The problem before the country is a very grave one, and in a few weeks we will know better than we do at present how it is to fare with agriculture during the im-

mediate months when land has to be ploughed, stock fed indoors, and the necessary preliminaries gone through for the spring work. The outlook at the moment is none too bright, mainly because people generally have not felt the pinch, and do not realize how grave are the issues. The expenses of working farms have increased to such a degree that it is doubtful whether the enhanced price of produce of all kinds will do much more than balance the outlays. Woe betide the man who enters on a new lease of a farm under present conditions. The recent frosts caught the flockmaster unawares, and the scarcity of hay made the outlook for a week serious. However, there is now a return to "fresh" weather, and mountain sheep will manage to forage for themselves.

The principal fat stock shows are over. There has been one less this year. The great event at Birmingham has not taken place, as Bingley Hall, in which it is usually held, is occupied by the Military. The other notable events are held at Norwich, Edinburgh and London, and in spite of the unsettled state of the country all three have been held. The Norwich event is shorn of much of its glory. Norfolk is one of the best agricultural countries in England; in the not distant past some of the best feeders in England were to be found in East Anglia. Now, there is not one who makes a specialty of feeding for the fat stock shows, and the country is dependent for its store cattle on the Irish market. The farmers in East Anglia have lost the art of breeding their own stock, and the present rage for lean meat and small joints affords little encouragement to men to develop the art of feeding cattle to a finish. One consequence of this is that at the Norwich Fat Stock Show now the best cattle come from other parts of England, and the Show is regarded as a sort of preliminary test for the great event at London. This year the most conspicuous exhibitor was J. J. Cridlan, of Maiseamore Park, Gloucester, an enthusiast for the Aberdeen-Angus breed. He has a fine herd in the west of England, and tries his fortune both at the summer shows and the great winter events. This year he took champion honors at Norwich with a heifer of his own breeding, named Eve of Maiseamore, and at London he stood reserve for all the supreme honors with her, and a steer bred in Strathdon, a high district in the uplands of Aberdeenshire. This steer Mr. Cridlan has named Stamp, and he is without any doubt one of the best Aberdeen-Angus steers ever exhibited.

In spite of the fact that the supreme honors at the Smithfield Club's London Show were taken by His Majesty the King's Shorthorn heifer Windsor Gem, 1915 has been a memorable year in the annals of the Aberdeen-Angus breed. The champions at Norwich and Edinburgh were both A.-A. heifers, and the champion steer at London, and the reserve champions for the supreme honors were all of the black polled breed. The Edinburgh champion was Peoria IV., of Aberlour, bred and owned by J. R. Findlay, of Aberlour, Craigellachie, Banffshire, and she was second at London in her class to the Norwich champion, Eve of Maiseamore. The Cridlan steer, Stamp, is a better representative of the breed than either, and he was made breed champion at London. Whether he was rightly beaten there by His Majesty's Shorthorn heifer, Windsor Gem, is a moot point. We do not say the award was wrong, but it was an umpire's award, and the umpire was one of the oldest and best known Shorthorn breeders in England—Richard Stratten, The Duffryn, Monmouth. The judges who differed and thus necessitated the calling of the umpire were I. T. McLaren, The Lenchold, Dalmeny, factor for the Earl of Roseberry, K. G. and A. P. Turner, Fyne Oaks, Hereford, a well-known breeder of Hereford cattle.

The Show this year was one of the best held for many years, and it is noteworthy that this has been the case in a year when most of the breed champions have been steers. The sole ex-

ceptions to this rule this year were found in the Royal exhibits, the Shorthorn champion, Windsor Gem, which in the manner indicated became the supreme champion of the Show, and the small breeds and crosses champions. It may be of interest to look at the ages and weights of these champions. Windsor Gem is admittedly the best Shorthorn heifer that has ever been the supreme champion at Smithfield. Except for a certain barenness about the thighs she is just as near perfection as a beast can be. We understand she is not to be slaughtered, but is to be taken back to the Royal Farms, reduced in flesh, put into the breeding paddock and set to her proper duty. She weighed 1,794 lbs. at 2 years 9 months and 3 weeks, or 945 days old. The Devon champion, Taunton Lad, weighed 1,663 lbs. at 2 years 8 months 1 week and 2 days, or 905 days. The Hereford champion, another steer, weighed 1,856 lbs. at 917 days. The Sussex champion, a steer also, at 671 days weighed 1,704 lbs., certainly a remarkable weight for his age. The Red Polled or Norfolk breed champion, again a steer, weighed 1856 lbs. at 958 days. The A.-A. champion, Stamp, the reserve champion of the Show, weighed 2,014 lbs. at 1,002 days. His breeders were Messrs. G. & C. Begg, Mains of Druminnor, Rhyndie, and no such steer for depth and width, and magnificent hind-quarters and thighs has ever before been seen as champion of the breed. The Galloways had a splendid champion in Colonel Stirling's Glenellan, from Keir, Dunblane; one of the best Galloway steers ever shown at London. He stood second reserve for the champion Cup as best steer in the Show. He was also champion Galloway at Edinburgh. He weighed 1,639 lbs. at 910 days, not a bad weight for a Galloway, and he and his breed comrades were almost the first animals in the Show to be sold. The champion of the Welsh breed was a steer named Recruit, which at 1,002 days weighed 1,713 lbs. The Welsh breed sold as quickly as the Galloways. Welsh meats are popular with the London butchers. Highlanders had a phenomenal champion in Lady Ogilvy-Dalgleish's Edinburgh, and champion Errol Candidate 13th. This magnificent animal was the most picturesque beast in the Show. At 1,221 days he weighed 1,963 lbs., quite rapid maturity for a Highlander. This breed also commands a ready sale in London market. The butchers there are quite eager to buy a Highlander, the meat being choice and the advertisement picturesque. The cross-bred champion was a great beast; a north-country bred ox, owned by Sir Richard Cooper Bart, M. P., Shearstone Park, Lichfield. This ox was got by an A.-A. sire, out of a grey polled cross cow, a type of animal frequently to be found on the smaller farms in Morayshire and Banffshire. This fine ox at 885 days old weighed 1,787 lbs. These figures will enable any one to work out for himself the average daily gain in weight made by the champion representative of these breeds and crosses. The championships in the small breeds and crosses went to a Dexter heifer, and an A.-A. Dexter cross heifer respectively; both from His Majesty's herds at Sandringham, in Norfolk. In the carcass competitions the champion carcass was that of an A.-A. heifer, the reserve being that of a cross-bred heifer by an A.-A. sire out of an Irish polled red cow. Altogether it will be seen that 1915 has been a remarkable year for the black polled breed. If its great representative, Stamp, missed the supreme honors, the breed itself fairly asserted itself as the best beef breed for early maturity and small joints. The more slowly maturing breeds, the Galloways, Highlanders and Welsh, were in chief demand by the London butchers, and made the highest prices per cwt. or lb., while in the cross-bred classes, among the prize winners, only the champion was without a known Shorthorn cross in its pedigree. The first prize steer in the younger class of first-cross steers was a Shorthorn-Galloway, a popular cross in the north of England, for the production of commercial cattle.

SCOTLAND YET.

Toronto, Montreal, Buffalo, and Other Leading Markets

Toronto.

There was hardly any business passing at the Union Stock Yards on Monday, Dec. 27. Receipts were only twenty cars, composed of 430 cattle, 2 calves, and 1 sheep. Undoubtedly the holiday curtailed receipts considerably, and buyers, although expecting larger receipts during the week, did not look for the same volume of business as the previous week. What butchers' cattle were offered sold at steady prices. Choice to good were quoted at \$7.25 to \$7.85, but the run was mostly of medium grades, selling between \$6.40 and \$7.10. There were a few butchers' cows of medium quality, which sold between \$5.25 and \$5.75. Canners and cutters made but a very small market, and these were purchased at the previous week's prices.

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	18	283	301
Cattle	182	2,274	2,456
Hogs	364	2,662	2,966
Sheep	287	1,609	1,896
Calves	83	236	319
Horses	161	2,325	2,486

The total receipts of live stock at the two markets for the corresponding week of 1914 were:

	City.	Union.	Total.
City	13	112	155
Cattle	68	1,205	1,273
Hogs	520	5,112	5,662
Sheep	200	1,131	1,331
Calves	3	97	100
Horses	—	142	142

The combined receipts of live stock at the two markets for the past week show an increase of 146 cars, 1,183 cattle, 565 sheep and lambs, 219 calves, and 2,344 horses; and a decrease of 2,696 hogs, compared with the corresponding week of 1914.

The receipts were light last week and the demand strong, and prices consequently rose 10c. to 15c. per cwt. on the opening day in the butchers' cattle section, and trade was active and strong at the advance throughout. As intimated in our last letter, the preference has been given to the well-finished, handy-weight type, this class selling up to \$7.90 per cwt., while the top for heavy steers was \$7.65. The sales to the retail trade of baby-beef reported by the abattoirs show an enormous increase in the demand for these young,

well-finished steers and heifers, and taken in conjunction with the difference in price reported above, between 1,200-lb. and 1,400-lb. animals, is a pointer to the cattle raisers as to the change in the trade in Ontario. Early-finished cattle are now supreme in their position. The best of the 1,200-lb. butchers' cattle were 25c. per cwt. above the heavy, fat kind, and baby heaves were 25c. to \$1 higher. Stockers and feeders was quiet, less than 200 head changing hands, at steady prices. Milkers and springers were few in number comparatively, and \$100 was the highest price paid for a single cow. But the business in this section is growing very extensive here, and orders are coming in from many distant points, such as Nova Scotia and Kentucky. Calves had practically no market all last week, due to small con-

signments, and into speculation prices. Lamb early week, and at the close, cop. Light steers to \$7.50, with \$5 to \$6. Hogs and water outside buyers trading then packers refused in the closing \$9, and most of this price.

Butchers' Cows at \$7.50 to \$7.40 to \$7.30; medium mon at \$5.50 to \$6 to \$6.50; good medium cows at \$4 to \$3 to \$4.25; heavy Several baby light steers, so Stockers and 900 to 950 lb feeders, 800 to stockers, 700 \$5.50; common at \$4 to \$4.7 lbs., at \$5.75

Milkers and \$10 per head Choice milkers \$100; good cow cows at \$45 to Veal Calves.—to \$10.25; b \$9.60; good at \$5.75 to \$7; co \$5.25; grassers

Sheep and La to \$7.50; heavy lambs at \$7.50. Hogs.—Selects 50c. is being de and thin light and \$4 off for for selects.

Wheat.—Ontario lot, \$1.05 to \$1.10, according to quality and tonnage to sample. Corn.—No. 2, all rail, \$1.25; all rail, all rail.

Oats.—Ontario, 38c., according to quality, 35c. Western, 49c., Western, 47c., 47c., all rail; rail.

Rye.—No. 1 rejected, 70c. to 75c. Buckwheat.—No. 1, according to quality, 70c. Barley.—Ontario 60c.; feed barley to freights out American Corn track, Toronto.

Canadian Corn 77c., nominal, tr Peas.—No. 2, \$1.90, according to quality, 1.75. Flour.—Ontario Patents, \$4.60 sample, seal oard bags, prompt sh Prices at Toronto \$6.60; second strong bakers', \$10c. more.

HAY AND Straw.—Baled, track, Toronto. Bran.—\$24 in b freight; shorts, freight; middlings real freight; good \$1.60, Montreal

COUNTY Butter.—Prices the past week round squares, 3c. cut, 32c. to 33c. separator dairy. Eggs.—New-laid

year were found in the horn champion, Windsor indicated became the Show, and the small ions. It may be of in- and weights of these n is admittedly the best ever been the supreme Except for a certain she is just as near per- We understand she is t is to be taken back duced in flesh, put into set to her proper duty. 2 years 9 months and The Devon champion, 663 lbs. at 2 years 8 ys, or 905 days. The er steer weighed 1,856 ussex champion, a steer 1,704 lbs., certainly a ge. The Red Polled pson, again a steer, 958 days. The A.-A. e reserve champion ed 2,014 lbs. at were Messrs. G. & C. r, Rhynie, and no such and magnificent hind- ver before been seen as The Galloways had a el Stirling's Glenellan, e of the best Galloway on. He stood second up as best s'eer in the hampion Galloway at 1,639 lbs. at 910 days, alloway, and he and his t the first animals in The champion of the amed Recruit, which at lbs. The Welsh breed ways. Welsh meats are butchers. Highlanders ion in Lady Ogilvy- champion Errol Can- ficent animal was the the Show. At 1,221 quite rapid maturity eed also commands a market. The butchers buy a Highlander, the the advertisement pic- hampion was a great d ox, owned by Sir P., Shestone Park, t by an A.-A. sire, out cow, a type of animal the smaller farms in This fine ox at 885 s. These figures will t for himself the aver- made by the champion ds and crosses. The ll breeds and crosses and an A.-A. Dexter th from His Majesty's orfolk. In the carcass carcass was that of a g that of a cross-bred of an Irish polled red e seen that 1915 'has the black polled breed. Stamp, missed the t itself fairly asserted ore for early maturity ore slowly maturing hlanders and Welsh, London butchers, and cwt. or lb., while in the prize winners, ut a known Shorthorn first prize steer in cross steers was a lar cross in the north ection of commercial SCOTLAND YET.

Markets

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alignments, and most of the offerings fall into speculators hands, at unchanged prices. Lambs fell 25c. per cwt. in the early week, and were steady at the drop. At the close, \$10.60 per cwt. was the top. Light sheep sold steady, at \$6.75 to \$7.50, with common and heavies at \$5 to \$6. Hogs started out at \$8.75 fed and watered, but under pressure from outside buyers, went to \$9.25. The trading then became very unsettled, as packers refused to pay the increase, but in the closing days they compromised at \$9, and most of the sales were made at this price.

Butchers' Cattle.—Choice heavy steers at \$7.50 to \$7.75; choice butchers' cattle at \$7.40 to \$7.90; good at \$7 to \$7.80; medium at \$6.50 to \$6.85; common at \$5.50 to \$6.25; choice cows at \$6 to \$6.50; good cows at \$5.50 to \$6; medium cows at \$4.90 to \$5.25; common cows at \$4 to \$4.50; canners and cutters at \$3 to \$4.25; light bulls at \$3.75 to \$4.50; heavy bulls at \$5.75 to \$6.75. Several baby heaves sold at \$8; Eastern, light steers, sold at \$5.50 to \$5.75.

Stockers and Feeders.—Choice feeders, 900 to 950 lbs., at \$6 to \$6.50; good feeders, 800 to 900 lbs., \$5.50 to \$6; stockers, 700 to 800 lbs., at \$5 to \$5.50; common stocker steers and heifers at \$4 to \$4.75; yearlings, 600 to 650 lbs., at \$5.75 to \$6.25.

Milkers and Springers.—About \$5 to \$10 per head lower than formerly. Choice milkers and springers at \$90 to \$100; good cows at \$70 to \$85; common cows at \$45 to \$65.

Veal Calves.—Extra choice veal at \$10 to \$10.25; best veal calves at \$9 to \$9.60; good at \$7.25 to \$8.50; medium at \$5.75 to \$6.75; heavy fat calves at \$5.75 to \$7; common calves at \$4.75 to \$5.25; grassers at \$3.75 to \$4.50.

Sheep and Lambs.—Light sheep, \$6.50 to \$7.50; heavy sheep at \$4 to \$5.50; lambs at \$10 to \$10.60; cull lambs at \$6.75 to \$7.50.

Hogs.—Selects, fed and watered, \$9; 50c. is being deducted for heavy fat hogs and thin light hogs; \$2.50 off for sows, and \$4 off for stags, from prices paid for selects.

BREADSTUFFS.

Wheat.—Ontario, No. 2 winter, per car lot, \$1.05 to \$1.07; slightly sprouted, \$1 to \$1.04, according to sample; sprouted, smutty and tough, 90c. to 96c., according to sample. Manitoba, No. 1 northern, \$1.28½, all rail. No. 2 northern, \$1.25½, all rail; No. 3 northern, \$1.23, all rail.

Oats.—Ontario, No. 3 white, 37c. to 38c., according to freights outside; commercial oats, 35c. to 37c.; No. 2 Canada Western, 49½c., all rail; No. 3 Canada Western, 47½c., all rail; extra No. 1 feed, 47½c., all rail; No. 1 feed, 46½c., all rail.

Rye.—No. 1 commercial, 86c. to 87c.; rejected, 70c. to 80c., according to sample.

Buckwheat.—Nominal, car lots, 76c. to 77c., according to freights outside.

Barley.—Ontario, good malting, 57c. to 60c.; feed barley, 50c. to 53c., according to freights outside.

American Corn.—No. 3, new, 77½c., track, Toronto.

Canadian Corn.—No. 2 yellow, old, 77c., nominal, track, Toronto.

Peas.—No. 2, nominal, per car lot, \$1.90, according to freights outside; sample peas, according to sample, \$1.50 to \$1.75.

Flour.—Ontario, winter, 90 - per - cent. Patents, \$4.60 to \$4.80, according to sample, seaload or Toronto freights, in bags, prompt shipment. Manitoba flour—Prices at Toronto were: First patents, \$6.60; second patents, \$6.10 in jute; strong bakers', \$5.90 in jute; in cotton, 10c. more.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$17.50 to \$18; No. 2, \$13 to \$15, track, Toronto, per ton.

Straw.—Baled, car lots, \$6.50 to \$7.50, track, Toronto.

Bran.—\$24 in bags, delivered, Montreal freight; shorts, \$25 delivered, Montreal freight; middlings, \$26 delivered, Montreal freight; good feed flour, per bag, \$1.60, Montreal freights.

COUNTRY PRODUCE.

Butter.—Prices remained stationary during the past week. Creamery fresh made, round squares, 33c. to 34c.; creamery, cut, 32c. to 33c.; creamery solids, 32c.; separator dairy, 30c. to 32c.

Eggs.—New-laid eggs remained station-

ary on the wholesales, selling at 50c. per dozen; cold-storage eggs, 30c. to 33c. per dozen; cold-storage, seconds, 24c. to 25c. per dozen.

Cheese.—New, large, 18½c.; twins, 18½c. per lb.

Honey.—Extracted, 10c. and 11c. per lb.; combs, per dozen sections, \$2.40 to \$3.

Beans.—Primes, \$4; hand-picked, \$4.25 per bushel.

Potatoes.—Ontario, per bag, car lot, \$1.25 and \$1.30; New Brunswick, per bag, car lot, \$1.40 and \$1.45.

HIDES AND SKINS.

City hides, flat 18c.; country hides, cured, 17c.; country hides, part cured, 16c.; country hides, green, 15c.; calf skins, per lb., 18c.; kip skins, per lb., 16c.; sheep skins, \$1.50 to \$2; lamb skins and pelts, \$1.20 to \$1.35; horse hair, per lb., 35c.; horse hides, No. 1, \$3.50 to \$4.50. Deer skins, green, 7c.; deer skins, dry, 20c.; deer skins, wet salted, 5c.; deer skins, dry salted, 15c.

FRUITS AND VEGETABLES.

Apples.—25c. to 35c. per 11-quart basket; Snows, 50c. per 11-quart basket, and \$3 to \$6 per barrel; Spys, \$4 to \$6 per barrel; Greenings and Baldwins, \$3 to \$4.50 per barrel; Russets, \$3 to \$4.50 per barrel; imported, \$2.25 to \$3 per box; British Columbia, \$2.25 to \$2.50 per box; Ontario, \$1.50, \$2 and \$2.25 per box.

Pears.—California, \$4.75 per case; Canadian, Anjous, half-boxes, \$1.25 to \$1.50; full, \$2.75 to \$3.

Tomatoes.—Hot-house, No. 1's, 27½c.; No. 2's, 25c.

Artichokes.—25c. to 30c. per 11-quart basket.

Beets.—60c. to 80c. per bag.

Beans.—Green, \$4 and \$5 per hamper; wax, \$4 per hamper.

Brussels Sprouts.—10c. to 12c. per quart; \$1.25 to \$1.50 per four-basket crate; imported, 20c. to 25c. per box.

Cabbage.—\$1 to \$1.25 per barrel.

Cauliflower.—Imported, \$3.25 to \$3.50 per case.

Carrots.—75c. and 80c. per bag.

Celery.—17½c. to 30c. per dozen; California, \$5.50 to \$5.75, and \$6.25 to \$6.50 per case.

Cucumbers.—Hot-house, \$2.50 per dozen.

Lettuce.—Bostonhead, \$5.50 per hamper; leaf lettuce, 20c. to 30c. per dozen.

Mushrooms.—Imported, \$2.25, \$2.50 and \$2.75 per 6-quart basket.

Onions.—25c. to 35c. per 11-quart basket; No. 1's, \$1.25 to \$1.35 per sack; other grades, 90c. to \$1.15 per sack; Spanish, \$4.75 per large case.

Parsnips.—75c. to 85c. per bag.

Potatoes.—New Brunswick Delawares, \$1.55 to \$1.60 per bag; Ontario, \$1.40 per bag; British Columbias, \$1.50 per bag.

Montreal.

Live Stock.—Offerings of choice cattle on the local market continued good right up to within a few days from Christmas, although the bulk of the butchers had filled their requirements from the receipts earlier in the week, or at the close of the previous week. Trade slackened slightly during the final day, but some choice steers were still traded in at 8c. to 8½c. per lb., while good animals brought 7½c. to 7¾c., and lower grades ranged all the way down to 5½c. Choice butchers' cows sold around 6½c., and bulls at 5c. to 6½c. per lb. Sheep and lambs continued in good demand as usual, and the tone of the market was quite firm, in spite of the recent advances. Lambs brought as high as 10c. per lb., the range being 9½c. to 10c., while sheep sold at 6½c. to 7c. per lb. There was a moderately good trade in calves, and prices for milk-fed stock held around 9c. to 9½c., while grass-fed were 6c. to 8c. per lb. There was a fairly active trade in hogs also, and the market was firm, selected lots selling at 9½c. to 9¾c. per lb., weighed off cars.

Horses.—In past years it has not been unusual for quite a little trade to develop in the horse market previous to Christmas. Before the automobile, Christmas presents not infrequently took the shape of horses. This state of affairs has now past, and during Christmas week no purchases of this character were made so far as is known; in fact, the entire horse market continues very dull, and offerings are quite light. Prices reported are as follows: Heavy draft

animals, weighing from 1,500 to 1,700 lbs., \$200, \$225 to \$275 each; light draft, 1,400 to 1,500 lbs., \$175 to \$225; small horses, \$100 to \$150 each; culls, \$50 to \$75 each, and fine saddle and carriage animals, \$200 to \$250.

Dressed Hogs.—Trade in dressed hogs continued active, and the tone of the market was quite firm. The weather was in every way favorable, being below freezing and yet not exceptionally cold. Country-dressed hogs were selling here at around 12½c. for the light weights, and around 11c. for the heavies, while abattoir-dressed, fresh-killed stock brought much the same as for the previous week, being 13½c. to 13¾c. per lb. in a jobbing way.

Poultry.—The market for turkeys was moderately firm last week, and, by comparison with other meats, poultry was not unusually dear. Choice, fresh-killed turkeys were quoted at 23c. to 24c. per lb., while good stock was 21c. to 22c. Chickens and ducks were in fair demand, at from 15c. to 19c., covering all qualities, while geese and fowl ranged from 12c. to 16c., according to quality.

Potatoes.—This market showed very little change last week. The quantity of the stock was fair, but supplies were none too plentiful. The weather was moderate, and did not greatly endanger the stock in shipment. Green Mountains were selling in car lots at \$1.25 per 90 lbs., while Quebec stock was about \$1.20 in smaller lots, prices were about 10c. above the figures mentioned.

Honey and Maple Syrup.—Christmas trade in maple syrup was fair, but prices were holding steady, at around 95c. for 8-lb. tins; \$1.10 for 10-lb. tins, and \$1.45 for 13-lb. tins. Maple sugar was 12½c. Honey was firm in price, white-clover comb honey being 14½c. to 15c., and brown 11½c. to 12½c. White extracted was 11½c. to 12c., and brown extracted 10c.

Eggs.—Receipts of eggs were very light, and strictly fresh stock was exceedingly difficult to obtain. It was quoted at 48c. to 52c. per dozen. Selected stock was still quoted at 38c., and No. 1 candled at 30c., while No. 2 candled was 27c. to 28c. So-called fresh eggs sold at 40c.

Butter.—The market continued to strengthen. Demand was quite active for the Christmas period, and purchasers had to pay slightly higher prices, being 34½c. to 35½c. for finest; 33½c. to 34½c. for fine, and about 1c. less for seconds. Dairy was stronger, at 29c. to 30c.

Cheese.—Prices continued steady, at 17½c. to 18c. for finest colored, and 1c. less for white. Eastern was 17½c. to 17¾c.

Grain.—Wheat reached new high-record prices on the 1915 crop. Ontario and Quebec No. 2 white oats were 45c.; No. 3 were 44c., and No. 4, 43c. per bushel ex-store.

Flour.—The market continued steady, and demand was good. Manitoba spring wheat first patents were \$6.70; seconds were \$6.20, and strong bakers' were \$6 per barrel, in bags, wood being 30c. per barrel extra. Ontario winter wheat flour, choice patents were \$6.20 per barrel, straight rollers being \$5.50 to \$5.60 per barrel in wood, and \$2.65 per bag.

Baled Hay.—The market was steady. No. 1 hay was \$20 per ton, carloads, ex-track; No. 2 was \$19.50 for extra good, and \$19 for No. 2. No. 3 hay was \$17.50 per ton.

Hides.—The feature of the market was the further advance in lamb skins. These were sold at \$2 each, which is a high-record price. Ordinarily, lamb skins sell at 90c. to 95c. or \$1 at this time of the year. The secret of the advance is the scarcity of wool and the high price which will be paid for it. Lamb skins furnish about 6 lbs. of wool. Beef hides were 20c. to 21c. and 22c. per lb., respectively, for Nos. 3, 2 and 1. Calf skins were 18c. to 20c. per lb. for Nos. 2 and 1. Horse hides were \$1.25 and \$2.50 each for Nos. 2 and 1. Rough tallow, 1½c. to 2¼c.; rendered, 6c. to 7c.

Buffalo.

Cattle.—A lighter supply the past week had the effect of strengthening the general trade materially, shipping steers showing an advance of from 15c. to 25c., and in some cases sales were regarded as 40c. to 50c. higher than the previous week. Best shipping steers ranged from \$8.70 to \$9, a few fancy Christmas cat-

tle running up to \$10 and \$11 per cwt. Butchering cattle showed about the same advance, and there were the fewest number of the choice grades. By reason of the light supply of the better kinds, medium grades carried a correspondingly stronger range of prices. About the best handy weight butchering steers offered sold up to \$8.50, and averaged less than ten hundred and fifty pounds. Good heifers in small lots, sold up to \$7.25, a few fancy cows made \$6.65, with some Christmas cows bringing up to \$7.50, and medium to good butchering cows ranged from \$5 to \$6. Canner supply was short, and was given a general 15c. to 25c. advance, bringing from \$3.25 to \$3.50, with bulk \$3.35 and \$3.40. Bulls showed the general advance of the day, best heavy ones selling up to \$7 and \$7.10, and very few of the light, common ones, went below \$4.50. Stockers and feeders were scarce, and several orders for these could not be filled. Good feeding steers, weighing between 800 and 900 lbs., sold around \$7, and buyers were willing to give up to \$7.25 for the right kinds. Yearlings, weighing less than 700 lbs., went to the feed lots as high as \$6.80. Milker and springer trade ruled generally stronger, except on the backward springers, which proved very slow sale. Receipts the past week were 3,225 head, as against 5,460 last week, and 3,450 for the corresponding week last year. Quotations:

Shipping Steers.—Choice to prime natives, \$8.75 to \$9; fair to good, \$8.25 to \$8.50; best Canadians, \$8 to \$8.25; fair to good, \$7.25 to \$7.75; common and plain, \$6.50 to \$7.

Butchering Steers.—Choice heavy, \$8 to \$8.50; fair to good, \$7 to \$7.75; best handy, \$7.75 to \$8.25; yearlings, prime, \$8 to \$8.75; yearlings, common to good, \$7 to \$7.75.

Cows and Heifers.—Prime weighty heifers, \$6.75 to \$7.25; best handy butcher heifers, \$6.75 to \$7.25; best heavy fat cows, \$6 to \$6.50; good butchering cows, \$5.25 to \$5.75.

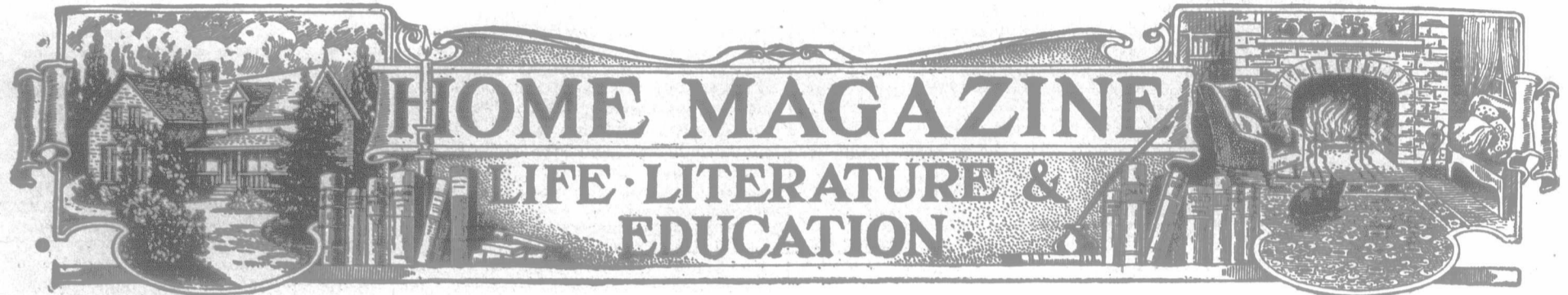
Stockers and Feeders.—Best feeders, \$6.50 to \$7; common to good, \$5.25 to \$6.25; best stockers, \$6 to \$6.50; common to good, \$4.50 to \$5.75; good yearlings, \$6 to \$6.75; common, \$4 to \$4.75.

Milkers and Springers.—Good to best, in small lots, \$90 to \$100; in carloads, \$65 to \$75.

Hogs.—All marketing points showed very heavy receipts again last week, and prices struck the lowest level of the year. Monday the top at Buffalo was \$6.85, although the great bulk of the sales on better weight grades were made at \$6.75, and pigs went at \$6.25 and \$6.35. Tuesday's market was steady on the better weight grades, with pigs selling a strong quarter lower; Wednesday, packers got the bulk of their kinds at \$6.60 flat, and pigs dropped to \$5.85, and Thursday, which was the low day, best grades moved at \$6.45 and \$6.50, with pigs \$5.75 to \$5.85. Friday's market reacted, prices showing a fifteen-cent advance over Thursday, best grades going at \$6.60 and \$6.65, and pigs landed mostly at \$6. Roughts ranged from \$5.75 to \$6, and stags \$5.25 down. Receipts last week reached approximately 53,400 head, being against 63,350 head for the week before, and 60,850 head for the same week a year ago.

Sheep and Lambs.—Receipts were very light last week, and record-breaking prices for the month of December were paid for lambs. On the opening day of the week tops sold generally at \$10.25, and culls went from \$9.25 down. The quality the next three days was not very good, and while but few sold above \$10, choice ones were quoted as high as Monday. Friday, only ten cars were in, and best lambs moved at \$10.15 and \$10.25. Top for yearlings was \$8.50; best wether sheep were quotable up to \$7, and the range on top ewes was from \$6 to \$6.50. Receipts last week totaled approximately 13,600 head, as compared with 16,317 head for the previous week, and 25,800 head for the same period a year ago.

Calves.—Approximately 1,700 head were marketed the past week, being against 1,892 head for the week previous, and 1,575 head for the same week a year ago. Top veals the first half of last week sold generally at \$11; Thursday, best lots brought \$11 and \$11.25, and Friday, under a red-hot Eastern demand, choice lots were placed up to \$12 and \$12.50. Cull grades went from \$9.50 down, and the range on fed calves was from \$4 to \$5.



Taking the Road.

By Lewis Worthington Smith, in The Independent.

Here is my task. Why should I turn and go.

Seeking in fairer fields a kindlier foe? Here is my task, and with it alien eyes Blaze foul and leering hate and mean surmise.

Here is my task: I cannot turn aside. Here I must press straight on while fools deride.

This is for me the one thing most worth while,

Not to be lured by some well-practised smile,

Not to be driven by a threat or blow, Out of the road it is my will to go. I may not have a path the world can see, I make the paths, and in them I am free.

Here is my task, and here my joy at once,

Why should I care to be some dawdling dunce,

Breathing the perfume of his lady's lips Idly, as flap the sails of anchored ships? I stretch my muscles, lift my head, and laugh.

Being myself is all the wine I quaff.

This is for me enough, that I so choose, I trust no toss of coin, and I refuse All leadings of dumb chance. Against the net

The destinies may weave I shall not fret, But they must give me passage till I turn And write my own last message on my urn.

Ask What You Will.

By Frank Walcott Hutt.

Ask what you will, the wise world says; Ask freely what you will of me: The grace of knowledge, length of days, A lease of power and mastery, The praises of an honored name, The seats of splendor and of fame.

Ask what you will; but you must share The struggles of my men of toil, And on my broad arenas dare The contest and the ceaseless moli, As thousands manfully have done Ere battles have been fairly won.

Ask what you will; but you must climb My hills by many a devious way, To gain those fastnesses of Time That have not yielded in a day; And long the siege ere you shall win At length your right of way therein.

Ask what you will, brave knight-at-arms; Lo, I have untold wealth to give; But every gift that lures and charms Seeks only of the life you live, Wherever led, however spent, A just and fair equivalent.

Browsings Among the Books.

WORK.

[From "Midstream," by Will Lovington Comfort. Published by "The Oxford University Press," Canadian Branch, Toronto.]

"Study to show thyself approved unto God, a workman that needeth not to be ashamed, rightly dividing the word of truth." . . . I can not rush off to another war without a moment's halt. Work and life to me mean the same thing. Through work, in my case, a transfer of consciousness was finally made from animalism to a certain manhood. This is the most important transaction in the world. . . A working idea of God comes to the man who has found

his work—and the splendid discovery invariably follows, that his work is the best expression of God. All education that does not first aim to find the student's life-work for him is vain, often demoralizing; because, if the student's individual force is little developed, he sinks deeper into the herd, under the levelling of the classroom.

There are no men nor women alive of too deep visioning nor of too lustrous a humanity for the task of showing boys and girls their work. No other art answers so beautifully. This is the intensive cultivation of the human spirit. This is world-parenthood, the divine profession.

I would have my country call upon every man who shows vision and fitness in any work to serve for an hour or two each day among the schools of his neighborhood, telling the children the mysteries of HIS daily task—and watching for his own among them.

All restlessness, all misery, all crime, is the result of the betrayal of one's inner life. One's work is not being done. You would not see the hordes rushing to pluck fruits from a wheel, nor this national madness for buying cheap and selling dear, if as a race we were lifted into our own work.

The value of each man is that he has no duplicate. The development of his particular effectiveness on the constructive side is the one important thing for him to begin. A man is at his best when he is at his work; his soul breathes then,—if it breathes at all. Of course, the lower the evolution of a man, the harder it is to find a task for him to distinguish; but here is the opportunity for all of us to be more eager and tender.

When I wrote to Washington asking how to plant asparagus, and found the answer; when I asked about field-stones and had the output of the Smithsonian Institute turned over to me—my throat choked; something sang all around; the years I had hated put on strange brightenings; I had written Home for guidance. Full, eager and honest, the answer came—the work of specialists which had moved on silently for years. I saw the brotherhood of the race in that—for that can only come to be in a Fatherland.

So the Father of us all answers when we do our work well. His revelations rain down according to our receptivity. All our struggle and training is to reach this receptivity. We must master the body first; then the brain—after that we receive. Thus you see how work and religion are one; how all our years of training, in the thrall of perfecting our task, is but a mastering of body and brain; how it runs parallel to the austerities of the religionist who inflicts tortures upon his body to conquer it, and the terrors of concentration upon his brain to keep it silent, in order to hear the soul's voice.

All pure preparation for expression in the work we love integrates immortality. All the tests and temptations of the world are offered merely for us to master them. All evolution from the rock, through lichen, limpet, lizard, through the rising spines to manhood, and through man's living soul, to prophecy and divinity,—is but a perfecting of our receptivity to the revelations of God. We refine to higher and higher vibrations, each revelation which we reach changing the world through our expression of it. The roof of earth is the floor of heaven. The upper node of human receptivity touches the lower plane of spiritual revelation—and the result is a remembered human utterance. The orbit of the satellite has intersected the orbit of its primary. All dimensions of evolution are reached in this

way; the highest plant becomes the lowest animal. The first resulting flashes of contact are only suggestions of the steady flame to come.

THE HIGHEST EXPRESSIONS OF HUMAN GENIUS IN THE PAST ARE BUT SUGGESTIONS OF THAT WHICH IS TO BE THE STEADY CONSCIOUSNESS OF THE WORLD—MEN OF THE FUTURE.

I can hardly wait to tell you of such things alone; they break out from this narrative of sordid affairs, from the slow grind of the years; yet it was this grinding that gave me surface to receive certain realizations; and it is the years that will enmesh them for other men, as no formal essay could do. I do not want to give your visions. I want them blood and bone to move among men—the spirit shining through.

Give a man his work and you may watch at your leisure the clear-up of his morals and manners. Those who are best loved by the angels receive not thrones, but a task. I would rather have the curse of Cain than the temperament to choose a work because it is easy.

Real work becomes easy only when the man has perfected his instrument,—the body and brain. Because this instrument is temporal, it has a height and limitation to reach. There is a year in which the sutures close. That man is a master who has fulfilled his possibilities—whether tile-trencher, stone-mason, writer, or carpenter, hammering periods with nails. Real manhood makes lowly gifts significant; the work of such a man softens and finishes him, renders him plastic to finer forces.

No good work is easy. The apprenticeship, the refinement of body and brain, is a novitiate for the higher life—for the purer receptivity—and this is a time of strain and fatigue, with breaks here and there in the cohering line.

The achievement of mastery brings with it the best period of human life. After the stress the relaxation. In its very nature this relaxation is essential, for the pure receptivity can only come when the tensility of the fight is done. If your horse is trained you do not need to picket him and watch lest he hang himself. Your body has learned obedience; you may forget it in the trance of work. . . The pure trance of work, the different reservoirs of power opening so softly; the instrument in pure listening—long forenoons passing without a single instant of self-consciousness, desire, enviousness, without even awareness of the body.

Every law that makes for man's finer workmanship makes for his higher life. The mastery of self prepares man to make his answer to the world for his being. The man who has mastered himself is one with all. Castor and Pollux tell him immortal love stories; all is marvellous and lovely from the plant to the planet, because man is a lover when he has mastered himself. All the folded treasures and open highways of the mind; its multitude of experiences and unreckonable possessions—are given over to the creative and universal force,—the same force that is lustrous in the lily, incandescent in the suns, memorable in human heroism, immortal in man's love for his fellowman.

FURTHER MESSAGES FROM "MID-STREAM."

All the lower forces of self must be conquered before man is at his best.

The real worker goes his way alone. Standing alone—that is the way of fine work and of pure living. Again, the training for the one is the training for

the other; all that has to do with real work has to do with the life that lasts.

It's all true—what the prophets and saviours came to earth to tell men. We've each got powers undreamed of.

The individual is a man who hears himself. I don't mean a man-crusher; not a man who rises on the necks of other men. He doesn't hear a real self, but an ugly animal instinct.

I learned well there in the Field-house that this "love of God" only comes to a man's soul when love for his fellowman goes forth.

The world is wonderful, perpetually modern.

The soul of woman dies if it may not some time aspire.

There is a task for every man who has learned to listen; a task, or a dream, or an ideal.

It is good to love one's neighbor, for love is service; love is giving.

Nothing ever compared in racial importance to the promise of a messiah which became a conviction in the breast of every Jewish woman. Prophets, judges and soldiers, were the incidents of that great dream's maturing. . . There is no law to prevent avatars being born into the world other than the lack of vessels fine enough and pure enough.

We love God by loving our neighbor—that is the immortal formula.

All creative thought is spiritually energized.

The highest moments of human genius in the past are but suggestions of that which is to be the steady consciousness of the world—men of the future.

Hope's Quiet Hour.

The Leader's Demand.

He said unto them all, If any man would come after Me, let him deny himself, and take up his cross daily, and follow Me. For whosoever would save his life shall lose it; but whosoever shall lose his life for My sake, the same shall save it. For what is a man profited, if he gain the whole world, and lose or forfeit his own self.—S. Luke ix.: 22-25, R. V.

Our Lord had been "praying alone," though the disciples were with Him. Then—straight from the strengthening communion with His Father—He gathered around Him the people and His nearest disciples (S. Mark viii.: 34-37) and told "them all" that His way led through rough places, and that anyone who wished to be a follower of His must not expect a rose-strewn path. The disciple must be content to be "as his Master," must not be discouraged or despairing if sorrow, pain or death have to be endured.

When the Israelites were journeying through the wilderness they were led by

God Himself there was no murmur against stone him be out of their also tempted LORD among their nation v they felt that right way, bu "into a grea where were se drought," the; ing led astray to hunger and might humble do them good hard discipline was intended lesson that m highest sense, ties are suppl that proceeded LORD doth m

Sometimes ti priceless mes drowned in th Then the guid dence leads H wilderness so listened to. tread our app eyes on our L tive to His ca

What is our very important haps it is to existence; to be able, avoid un praise of our to the greater course, we do these things; b —Self may be day. It is pos for a good caus worthy objects, knowledged aim

St. Paul war bestow all his and die as a m no love in the nothing.—I Cor are very cheris as charity. L lest we are f Christ.

There is a pos religion as a ki comfortably up not considered We may become consciousness of sure of His reac dent that our s dition that we s like the Pharis we are not as o fortable ease of energies, and we we are, quite sat condition, instead Leader, and try

Let us prayerfu eyes turned away Lord. Then—i danger have to b them without losi were in His pati to follow in His pain. Those wh to save themse Possible, are foll Christ; and the they lose their l world is no bet lived.

A perfectly she satisfy any of us, very limp and ch trenches may be I notice that our eager to get to tl appointed if they parative security muda.

One day a poe seeking shelter from outstretched arms His first thought lovely to have a f would make him shelter when dan storm passed, and careless and forg changed his mind. Christian is called ness than seeking The prayer for safe Prayer for courage said:



God Himself into a desert place, where there was no water. They did not only murmur against Moses and threaten to stone him because he had brought them out of their slavery in Egypt, but they also tempted the LORD, saying, "Is the LORD among us, or not?" As long as their nation was in peace and prosperity they felt that they were being led in the right way, but when they were brought "into a great and terrible wilderness, where were serpents and scorpions and drought," they were afraid they were being led astray. Yet Israel was allowed to hunger and thirst, in order that God might humble and prove His people, to do them good at their latter end. The hard discipline was not meaningless, it was intended to teach them the great lesson that man does not live, in the highest sense, if only his physical necessities are supplied, "but by every word that proceedeth out of the mouth of the LORD doth man live."

Sometimes the Divine Voice, whispering priceless messages to the Soul, is drowned in the whirl of earthly noises. Then the guiding pillar of God's providence leads His loved children into the wilderness so that His words may be listened to. Let us be fearless as we tread our appointed road, keeping our eyes on our Leader and our ears attentive to His call.

What is our object in life? That is a very important thing to find out. Perhaps it is to have an easy, comfortable existence; to bear as few burdens as possible, avoid unpleasant things, win the praise of our fellows, and then pass on to the greater happiness of heaven. Of course, we don't intentionally aim at these things; but—without our knowledge—Self may be our object in life every day. It is possible to work energetically for a good cause, and to give liberally to worthy objects, with the secret, unacknowledged aim of being admired.

St. Paul warns us that a man may bestow all his goods to feed the poor, and die as a martyr, and yet—if there be no love in the offering—it profiteth him nothing.—1 Cor., xiii.: 3. Our hearts are very clever in disguising selfishness as charity. Let us be on our guard lest we are following Self instead of Christ.

There is a possibility of using even our religion as a kind of feather-bed to rest comfortably upon—and feather-beds are not considered healthy in these days. We may become so self-satisfied in our consciousness of God's care for us, so sure of His ready forgiveness, so confident that our soul is in first-class condition that we stand up in the temple-like the Pharisee—and thank God that we are not as other men are. A comfortable ease of soul may paralyze our energies, and we may settle down where we are, quite satisfied with our spiritual condition, instead of struggling after our Leader, and trying to live as He lived.

Let us prayerfully endeavor to keep our eyes turned away from Self and on our Lord. Then—if trouble, difficulty and danger have to be faced—we shall accept them without losing faith. These things were in His path, and we can't expect to follow in His steps and escape all pain. Those who make up their minds to save themselves trouble, whenever possible, are following Self instead of Christ; and the natural result is that they lose their life—it is wasted, the world is no better because they have lived.

A perfectly sheltered life would not satisfy any of us, and it would make us very limp and characterless. Life in the trenches may be very terrible—and yet I notice that our finest soldiers are very eager to get to the front, and very disappointed if they are posted in the comparative security and comfort of Bermuda.

One day a poet saw some sparrows seeking shelter from a storm under the outstretched arms of a wayside crucifix. His first thought was that it would be lovely to have a faith like theirs, which would make him turn to Christ for shelter when danger threatened. The storm passed, and the birds flew away—careless and forgetful—then the poet changed his mind, considering that the Christian is called to a more manly business than seeking shelter for himself. The prayer for safety was changed to a Prayer for courage and endurance. He said:

"Not like the birds would I come to Thee.

O Lord, for shelter from strife and care—

From the pain and peril of life to flee. Didst Thou seek shelter when, o'er Thy head,

The clouds of muttering hatred burst, When friends were flying and, in their stead,

Came cross and spear and the raging thirst?

I ask not shelter, but ask to be With Thine own resolute soul endowed,

In time of trial to stand with Thee, To front the tempest or face the crowd.

And, when Thy glory regilds the sky, Thy spirit of service to me still give,

For I would be able Thy death to die Were I but able Thy life to live."

That is what we really want—not the trembling consciousness of safety, felt by one who is hidden from danger until the battle is over, but the fearless loyalty to our Leader which draws us after Him in His triumphant march through danger, pain and death, to victory. We want to be like the young Hebrews who faced an angry king and calmly informed him that their God was "able" to deliver them out of his hand. "But, if not"—that is, if the Divine wisdom saw that it was better that they should suffer and die—their resolution remained unshaken. "Be it known unto thee, O king, that we will not serve thy gods."

So it should be with us. God is able to deliver us, no matter how black the outlook may be; but, if not—if it is His will that we should follow Christ through the agony of Gethsemane and Calvary—we look to Him for the needed grace to deny ourselves and "take up" cheerfully the daily cross laid upon us.

We are soldiers of the cross—a fact we are only too apt to forget. We want to follow Christ, but we don't want to "endure hardness" as His good soldiers. Then—if our aim is selfish comfort—we have no right to call ourselves followers of the Crucified, who has said: "Who-soever doth not bear his cross, and come after Me, cannot be My disciple." Christianity is not a smooth and easy road now, any more than it was in ages of persecution. Shall we refuse to trust our Leader, as soon as His service ceases to be easy and comfortable? What should we think of a soldier who marched proudly with his regiment on review days, but "deserted" as soon as there was a call to enter the danger zone?

Once, when great multitudes were with our Lord, He said something to them which was likely to discourage all but the most devoted. He turned, and said: "If any man come to Me, and hate not his father, and mother, and wife, and children, and brethren, and sisters, yea, and his own life also, he cannot be My disciple." What a tremendous demand! Can anyone obey it?

Look at Belgium. She was offered her choice between dishonor and death—and she chose death, though it meant that Belgian men must not only sacrifice their own lives, but the lives of wives and children. Christ is "The Truth," and "The Lord of Righteousness." To choose death for righteousness' sake is to save the life laid down. Belgium was willing to die, and she has saved her soul. On the other hand, love of country ceases to be a noble thing, when a nation deliberately chooses to sacrifice, on the altar of patriotism, truth, pity, justice, and righteousness. When warriors, bent on victory, trample the helpless beneath their feet, they are seeking to save their lives at the expense of their souls. I once saw a cartoon representing the German emperor saying to King Albert that he had taken all his possessions. The Belgian king was answering calmly: "Yes, you have taken everything but my soul."

The answer to our Lord's question is obvious: "What is a man profited, if he gain the whole world, and lose or forfeit his own self?"

Owen Wister ends his new book—"The Pentecost of Calamity"—with these words: "Some things are worse than war, and you can pay too high a price for peace; but you cannot pay too high for the finding and keeping of your own soul." DORA FARNCOMB.

The Windrow.

"The man whose success is merely personal—actor, sophist, millionaire, aesthete—is incurably vulgar."—Prof. George Santayana.

In recognition of his work as a novelist, the National Institute of Arts and Letters recently awarded to William Dean Howells, the gold medal, which is its highest tribute to attainment in any of the arts.

One hundred and six dogs were recently purchased in Nome, Alaska, by Lieut. Rene Haas, of the French Army, for service at the front in Alsace. The Alaska dog has long been recognized, for strength and speed, as a superior draft animal.

Many will remember the importation a few years ago of twelve hundred and fifty reindeer into Alaska. To-day there are sixty-five thousand.

Baron Shibusawa, described as the "Morgan of Nippon," is at present in the United States "trying to foster a surer friendship" between his country and the American republic.

"A steady, persistent propaganda for peace, seems now to be established in Germany. How, or by whom it is organized, is difficult to discover, but as papers of all classes keep on issuing articles upon peace, it would seem that some considerable backing of popular sentiment is behind the movement. A suspicion has been expressed in England that Germany is sending out peace-hints to sow dissension among the Allies and induce some of them to sheathe the sword. But most of the British papers regard them as signals of distress."—Literary Digest.

The women of Germany are demanding the institution of a system which will give every young woman a year's training in such subjects as hygiene, eugenics, care and training of children, household economics, the art of cooking, and the science of nutrition. Such a system, it is believed, will greatly help in recuperating Germany after the war.

The Belgian Army Messenger has a story of an old tom-cat, from no one knows where, who has made his home in the trenches on the Yser. His existence seems intimately bound up with that of the soldiers, whose sang-froid and powers of endurance he imitates. If he hears the sound of shrapnel, he goes from one soldier to the other, rubbing himself against their legs. Shells make no impression on him. He watches them against the sky and waits till they burst without disturbing himself in the least. One day—he had certainly breakfasted too well—he was seen stretched on a ruined wall, where he lay the whole day in spite of the heavy bombardment. From time to time he was covered with debris from the explosion of a shell. He sprang up, shook himself, mewed angrily, and then resumed his former position on the same stone.—Our Dumb Animals.

Under conscription, all the able-bodied French artists of military age are at the front, and many of them find time to use their pencils in making sketches, which may be elaborated at some future day. In the period immediately succeeding the war, the world's art is likely to be strongly illustrative of the real spirit of war.

"St. Dunstan's," one of the most beautiful estates in London, has been made over into a school for teaching soldiers blinded in the war. Braille writing, carpentry, boot-making, basketry, mat-making, and poultry raising, are among the subjects taught. Two men have made the schools possible. One of them is Arthur Pearson, who built up Pearson's Magazine, and subsequently became blind. The other is Otto Kohn, a rich American.

Rev. S. B. Rohold, in Missionary Review, points out that over 550,000 Jews are now fighting on the battlefields of Europe, 5.5 per cent. of all the Jews in the world—double the proportion of Gentiles engaged. Over 16,000 are with the army from the British Isles. "What an irony," he says, "that the only man who dared to defy the Kaiser in the Reichstag and vote openly against the German war-loan was Herr Liebknecht, a Jew!" Upon the other hand, it is a Jew, Herr Albert Ballin, who has charge of the transportation of all the German troops.

An interesting item in the London (Eng.) Economist, compares the cost of the present war with that of other wars in the past. The cost of the present war is about five million pounds per day. The total for the Crimean War was about what we are spending in two weeks; that for the Boer War what we are spending in eight weeks; and that for the twelve years' Napoleonic War less than we are spending in nine weeks. The following is an estimate of the cost for all the combatants fighting to-day:

	Per day.
Great Britain	£4,500,000
Germany	4,000,000
France	2,500,000
Russia	2,500,000
Austria	2,500,000
Italy	1,500,000
Turkey, Serbia and Belgium....	500,000
Total	£18,000,000

The Dollar Chain

A fund maintained by readers of "The Farmer's Advocate and Home Magazine" for (1) Belgian Relief; (2) Soldiers' Comforts; (3) Red Cross Supplies.

Contributions for the week from Dec. 17th to Dec. 24th:
John Rodger, Lachute, Que., \$1.00; A Well-wisher, \$1.00; Oak Bay Mills Sabbath School (This school is doing splendid and continuous work), \$2.00.
Amount previously acknowledged\$1,926.60
Total to Dec. 24th.....\$1,980.60

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

The following names of contributors to a jam donation previously acknowledged in these columns have been forwarded to us from the Women's Institute of Gordon Township, Manitoulin Island: Mrs. Woods, Mrs. Gilroy, Mrs. Jenson, Mrs. Brockelbank, Mrs. Milligan, Mrs. Hamilton, Mrs. Strain, Mrs. Linely, Mrs. Morell, Mrs. H. Hamilton, Mrs. Procter, Mrs. W. Strain, Mrs. Pemberton, Mrs. W. Hall, Mrs. Burt, Mrs. J. Wittie, Mrs. Campbell, Mrs. Gibson, Mrs. Beck, Mrs. Wismer, Mrs. P. Beck, Mrs. McAnech, Mrs. S. Hall, Mrs. H. Wittie, Mrs. H. Currie, Mrs. Chapman, Mrs. C. C. Platt, Mrs. R. R. Gamery, Mrs. Laugheed, Mrs. Wilson, Mrs. G. Coutts.

Until further notice no more jam can be sent overseas from the Canadian Red Cross, but there is an urgent call for money.

Re. Postage on Parcels Going to the Troops in France.

IMPORTANT.
Post Office Department, Canada.
The Department is in receipt of application to have parcels addressed to our soldiers in France sent free or at reduced rates of postage, there evidently being an impression that the Department has control of these rates and could do as it wished, but this is not so, as the question of postage is fixed by International agreement, so that it is not within the power of the Canadian Post Office Department to undertake to carry the parcels free or at a reduced rate of postage. Under International law, provision is made for the free transmission of parcels for prisoners of war, but this privilege does not extend to parcels for troops engaged in active

that has to do with real life that lasts.

—what the prophets and to earth to tell men powers undreamed of.

al is a man who hears on't mean a man-crasher, no rises on the necks of he doesn't hear a real self, animal instinct.

ll there in the Field-house e of God" only comes to when love for his fellow-

is wonderful, perpetually

woman dies if it may not

ask for every man who has in; a task, or a dream, or

love one's neighbor, for love is giving.

compared in racial im- promise of a messiah a conviction in the breast wish woman. Prophets, oldiers, were the incidents dream's maturing. . . w to prevent avatars be- the world other than the is fine enough and pure

by loving our neighbor- mortal formula.

thought is spiritually

oments of human genius e but suggestions of that the steady consciousness men of the future.

e's Quiet Hour.

der's Demand.

to them all, if any man er Me, let him deny him- up his cross daily, and or whosoever would save e it; but whosoever shall My sake, the same shall what is a man profited, if hole world, and lose of a self.—S. Luke ix.: 28-

d been "praying alone," disciples were with Him from the strengthening His Father—He gathered e people and His nearest ark viii.: 34-37) and told t His way led through and that anyone who follower of His must not rewn path. The disciple t to be "as his Master," encouraged or despairing if or death have to be en-

raelites were journeying erness they were led by

service, nor is it within the power of the Department to so extend it.

The rate of postage required on parcels addressed to the troops depends upon the location of the addressee. If the addressee is in England, the rate on parcels for England applies, which is twelve cents per pound; whilst, if he is in France, the parcels are subject to the rates applicable to parcels for France, which are as follows:

One lb., 32 cents; 2 lbs., 40 cents; 3 lbs., 48 cents; 4 lbs., 64 cents; 5 lbs., 72 cents; 6 lbs., 80 cents; 7 lbs., 88 cents; 8 lbs., \$1.02; 9 lbs., \$1.10; 10 lbs., \$1.18; 11 lbs., \$1.26.

These are exactly the same charges which existed for years between Canada, England and France before the war, and are the result of an agreement or Convention made between these countries and Canada, and as these countries have not agreed to lower their rates between England and France, Canada has to pay them the same rates as before the war and must charge the same postage.

In all cases parcels for the troops must be addressed Care Army Post Office, London, England, but this does not in any way affect the rate of postage which depends entirely upon the location of the addressee.

Fashion Dept.

HOW TO ORDER PATTERNS.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price ten cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, twenty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

When ordering, please use this form:—

Send the following pattern to:

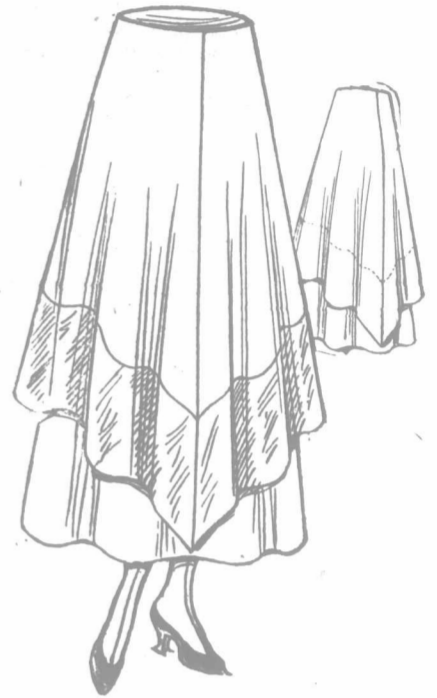
Name
 Post Office.....
 County
 Province
 Number of pattern.....
 Age (if child or misses' pattern)
 Measurement—Waist, Bust,
 Date of issue in which pattern appeared.



8843 (With Basting Line and Added Seam Allowance) One-Piece Gown in Russian Style, 34 to 44 bust.



8835 (With Basting Line and Added Seam Allowance) Girl's Dress, 8 to 14 years.



8822 (With Basting Line and Added Seam Allowance) Two-Piece Skirt, 24 to 32 waist.



8834 One-Piece Gown, 34 to 42 bust.



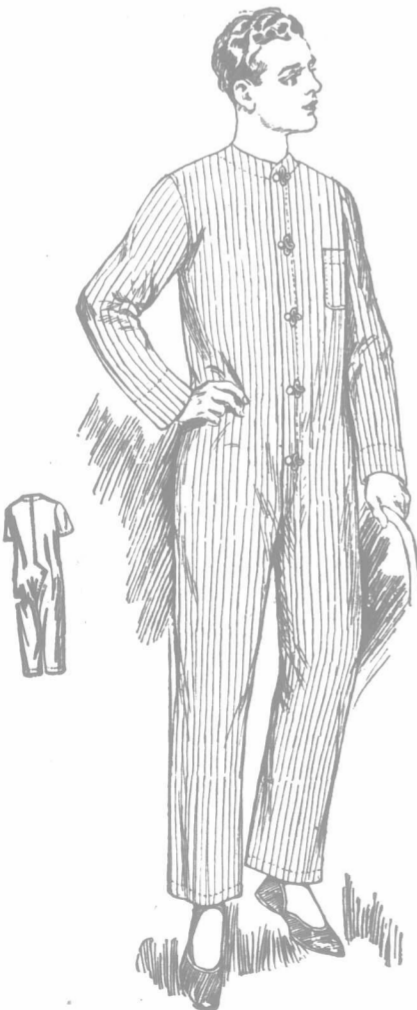
8850 Men's Bathrobe, Small 36 or 38, Medium 40 or 42, Large 44 or 46 breast.



8817 (With Basting Line and Added Seam Allowance) Loose Coat for Misses and Small Women, 16 and 18 years.



8816 (With Basting Line and Added Seam Allowance) Skirt with Yoke, 24 to 32 waist.



8815 (With Basting Line and Added Seam Allowance) Men's and Youth's Pajamas, 32 or 34, 36 or 38, 40 or 42, 44 or 46 breast.



8853 Boy's Suit, 4 to 10 years.



8842 (With Basting Line and Added Seam Allowance) One-Piece Gown for Misses and Small Women, 16 and 18 years.



8872 One-Piece Dress for Misses and Small Women, 16 and 18 years.



8802 (With Basting Line and Added Seam Allowance) Bodice.



8836 (With Basting Line and Added Seam Allowance) Girl's Garment.



Basting Line and Added Seam Allowance) Two-Piece Skirt, 34 to 32 waist.



One-Piece Gown, 34 to 42 bust.



Basting Line and Added Seam Allowance) Skirt with Yoke, 34 to 32 waist.



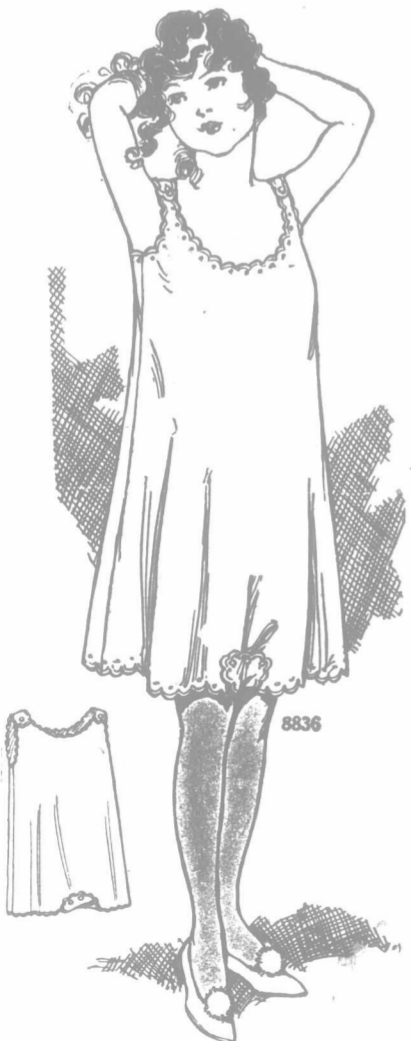
One-Piece Dress Misses and Small Women, 16 and 18 years.



8870 Girl's Dress, 8 to 14 years.



8802 (With Basting Line and Added Seam Allowance) Gown with Overbodice, 34 to 42 bust.



8836 (With Basting Line and Added Seam Allowance) Girl's Combination, Under Garment, 8 to 14 years.



8831 (With Basting Line and Added Seam Allowance) Child's Fur Set consisting of Neck Piece, Muff and Cap, 2 sizes 2 or 4, 6 or 8.



8876 Child's Dress, 1, 2, 4 and 6 years.



8827 (With Basting Line and Added Seam Allowance) Combination Corset Cover and Envelope Drawers, 31 to 42 bust.



8854 Girl's Coat in Russian Style, 8 to 14 years.



8833 (With Basting Line and Added Seam Allowance) Coat with Plaits for Misses and Small Women, 16 and 18 years.

8798 (With Basting Line and Added Seam Allowance) Skirt with Plaits for Misses and Small Women, 16 and 18 years.



8844 Gathered Coat, Small 34 or 36, Medium 38 or 40, Large 42 or 44 bust.



8857 Two-Piece Skirt, 24 to 34 waist.



8799 (With Basting Line and Added Seam Allowance) Fancy Waist, 34 to 42 bust.

8785 (With Basting Line and Added Seam Allowance) Straight Skirt Small 26 or 28, Medium 30 or 32, Large 34 or 36 waist.

The Beaver Circle

OUR SENIOR BEAVERS.

[For all pupils from Senior Third to Continuation Classes, inclusive.]

The Jolly Tree.

By Pauline Frances Camp.

If you never have planted a Jolly Tree,
Don't wait for an Arbor Day,
But take a bit of advice from me,
And do it without delay.
It starts from a little, smiley seed,
And quick as a flash 't will sprout;
And when you have tasted the fruit,
Indeed,
You never will be without.

As soon as the smiley seed is in,
At once it begins to grow;
And the dear little giggly-buds begin
Their gay little heads to show.
And truly amazing it is to see,
How in less than a wink and a half,
A giggly-bud can grow to be,
The jolliest kind of a laugh!

The fruit is a cure-all, doctors say—
The very thing for the blues;
And when 'tis applied in the proper way,
Is good for a bump or bruise.
Plain bread and butter, a treat will be,
With Jolly sauce on the tray.
Oh, come, let us plant a Jolly Tree,
Nor wait for an Arbor Day.

Funnies.

Little Helen, the minister's four-year-old daughter, was an interested witness at a wedding ceremony performed at the parsonage.

The next day she was discovered with her small brother and a child from over the way lined up before her, remarking in tones of awful solemnity: "Will you have thith lady to be your couthin?"

Callers were at the door and Bobbie was told to show them into the parlor. He did so, and while his mother was fixing herself up, he sat there rather em-

barrased. Presently, seeing the visitors glancing around the room, he said: "Well, what do you think of our stuff, anyway?"—Boston Transcript.

A New Competition.

Dear Beavers,—Now that the long winter evenings are here you will have time to write some compositions, won't you? So what about a new competition?

Here is the subject:

Write a STORY in which the following are interwoven: A little girl, a little boy, an old man, a dog, and a gipsy camp. Send your stories so that they will arrive here not later than the first day of February. Books—story books this time—will be sent for prizes, so be sure to tell your age and class at school; otherwise we shall not know how to grade the books.

Address, "The Beaver Circle, 'Farmer's Advocate,' London, Ont.

Senior Beavers' Letter Box.

Dear Puck and Beavers,—This is my first letter to your Circle. My father has taken "The Farmer's Advocate" for fifteen years. My teacher's name is Miss Bertha Switzer; I like her fine. The name of our school is "Beaver School." We have a colt; it was born last spring. It looks exactly like its mother. The mother's name is Queen, and we are going to call the colt Maud. We have a pup; his name is Sport. He is a very funny dog. One day a strange pig came in and it was hot. There was a little stream near by, and it went into it to roll over. Sport could not reach it, so he first jumped on its back, and just as soon as he got on the pig's back he turned and jumped back to the bank. He helps us carry wood to the house. If a stick of wood is put in his mouth he will carry it right up to the wood-box and drop it in. Wishing the Circle much success, I will close with a riddle.

A beggar had a brother; that brother died, but the brother that died didn't have any brother. What relation were they?—Ans.—The beggar was a woman.

JESSIE WALLACE.
(Age 11, Sr. III Class.)

Gamebridge, Ont.

Dear Puck and Beavers,—We live on a farm eleven miles from the town of Cochrane, and our nearest neighbor is one and a half miles from our place, so it is pretty lonely down here. I have a smaller sister; her name is Molly. We have ducks and chickens; also a dog, pup and cat. Our dog's name is Spot, and our pup's name is Jack, but our cat has no name. When I lived in Cochrane I was in the Senior Third, but there is no school down here. In winter time we snare rabbits, and sometimes we trap them. Well, what do you think? One day our cat came home with a snare around her neck. It had happened to be a joined snare, and the John gave way, otherwise she would have been strangled. Then, one day we were out helping my father build a bridge when we heard an awful screeching and yelping. We thought something had got one of our dogs in the bush, but we found it was our pup, Jack, caught in one of the traps. I will close now, and tell you more about our farm the next time.

DORIS REED (age 12).

Abitibi Crossing, Ont.

Dear Puck and Beavers,—As I have written three or four times without getting my letter in print, I decided to try again. I will tell you about my pets now, as I have four fine ones.

My dog, Pat, is a pretty brown-and-white dog, neatly marked. He is a little over a year old, and is already a good cattle dog. He ran away last Saturday, but came back Monday. I have one old cat and two kittens. The cat is a pretty, black-and-white one. One of the kittens is also black and white. The other is nearly all white, just a little gray on its head and tail. They make a great noise every day playing on the veranda. Well, I must not make my letter too long, or else this

one will not get in print either. Wishing both Puck and Beavers great success, I remain,

FAYE BANCROFT.
(Sr. III Class.)

Mt. Brydges, Ont.

OUR JUNIOR BEAVERS.

[For all pupils from the First Book to Junior Third, inclusive.]

To A Chichadee.

By Myra A. Buck.

Pretty, pretty little bird on the snowy bough,
Do you feel the wintry chill; are you hungry now?
Tell me, little bird, I pray, what you find to eat
On the frosty, snowy ground, in the storm and sleet.

Bugs and worms you cannot find when the snow is deep;
Is there any cozy place where you hide to sleep?
Other birds have flown away to a warmer clime;
You, oh, little chickadee, brave the winter time.

I will scatter crumbs for you out upon the lawn;
Pretty little bird, I pray, come there ev'ry morn'
I will build a little house, place it in the tree.
You shall go and live inside, pretty chickadee.

Junior Beavers' Letter Box.

Dear Puck and Beavers,—I have never written to your Circle before. I have a brother Tom, and two sisters; their names are Margaret and Helen. Mamma reads "The Advocate" letters to us. She read one to us last night from Jack Carscaddon, Orono. He said he had been in Newcastle. That is where my grandpa lives. We were down there all July, and used to go down to the lake. Grandpa had a dog called Pete. I have a cousin going to be a lieutenant in the army. My papa sometimes has the pictures of the drilling-machine he makes printed in "The Advocate." We were reading one of Mr. T. Burgess' stories last night about "Paddy the Beaver." I hope my letter will not land in the w.-p. b. I will close with a riddle.

Why is "a" like your dinner?—Ans.—Because your dinner is in the middle of the day, and "a" is the middle of day.

GRAYDON MELROSE (age 8).

Listowel, Ont.

[This is a very good letter for a very little Beaver, Graydon.—Puck.]

Dear Puck and Beavers,—I enjoy very much reading the letters and riddles sent by the little Beavers. I wrote my first letter to the Beaver Circle last summer, and my kitty and duc's have grown quite big now. My kitty's name is Spottie. We have a new school teacher in our school since the summer holidays; her name is Miss Houlahan. I have two little sisters. Hattie, who is five years old, goes to school with me. Dorothy will soon be three years old, and my baby brother, Borden, is just learning to walk. I will close with a riddle.

As round as an apple, as sharp as a glance; get on its back and it will carry you to France. Ans.—The moon.

Wishing the Beaver Circle every success, MARGARET EVELY McNEIL.
R. R. No. 2, Kars, Ont.

Dear Puck and Beavers,—My brother has taken "The Advocate" for two years. I like it fine, especially for riddles. I have a sister and two brothers. My brother is at the carpenter work. This is my second letter to your charming Circle. As my letter is getting long I will close with a riddle.

What goes up and down and never touches earth or sky?—Ans.—A pump handle.

I hope this letter will escape the w.-p. b. DELIA BROWNELL.
(Age 8, Jr. II.)

The Ingle Nook.

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

On Work.

It seems odd, perhaps, to begin the New Year with talks on "Work," both here and on the first page of our Home Department. But the subject has clung, somehow, and the more I have thought of it the more appropriate it has seemed, even when the joy-bells are ringing.

First of all we will read the following letter from "Lallie." I have kept it over waiting for some such occasion as this:

Dear Junia and Nookers,—Just a few minutes with you to-day. How would we do without "The Farmer's Advocate"! Even in these hard times we don't want to try, do we? When we haven't time to read a book we generally can steal a few minutes for the Ingle Nook at least. My, but didn't we enjoy those articles from "Aunt Jane of Kentucky," and do you remember "Carmichael"? Wasn't it great? And Helen's Diary is so funny.

How few of the old names appear in the Ingle Nook! What lessons of patience and endurance, and of cheer, we learn from "Lankshire Lass."

We never hear a peep from anyone who is discouraged or down-hearted. If we did, along would come someone and call her down for complaining and not being in love with her surroundings, etc. My heart just went out to those poor, tired women. Some of us know what it is to be just dead tired and be compelled to keep on, and if everything didn't just look rosy, would still peg away.

For, if a friend accomplished so much, so could we, and we would try, or die in the attempt. But there is a vast difference in women. Some are never tired. The harder they work the more they eat, and consequently become more fleshy, while others, alas, in attempting to keep apace with their sturdier sisters, the harder they work the thinner they get, till they are ashamed of themselves, and fear lest their husbands will become ashamed of them also.

Along comes a mother of a large family. She sends them all to school; does all their sewing, husband's smocks and cottonade pants; knits, too; bakes her own bread; churns; milks eight or nine cows, and raises a lot of poultry; and the poor, tired woman, on learning this, feels like crawling into a knot-hole.

Well now, no woman can do everything unless she is a veritable Samson. Of course, there is a great deal in managing.

But one will look after the garden, weed, and gather the fruit, while her neighbor has just a small vegetable garden which her husband keeps clean. Another will take care of the lawn and flowers, or carry into shed and pile summer wood, or attend to poultry or dairy.

Here is a pointer. If you cannot get the men to remove the ash-pile early enough in the spring, try emptying them as taken from the stove, on the wagon-track or where desired.

No one can do all, but each does several or many things (usually, what we most like). 'Tis like practising economy. Each one economizes in some things, and may appear extravagant in others.

Really, I did not think it was so late. Excuse my staying so long on just my second call.

LALLIE.

Lallie speaks from the heart. One reads between the lines that she herself may be just one of those "tired women" with far too much to do, and I am sure that, if so, she is very much mistaken if she thinks that the most of us do not sympathize with her, and very deeply, too.

There is something at fault when any woman is "dead tired" all the time, or even a considerable part of it. Perhaps she is really not well; or perhaps a selfish or thoughtless husband who will

not get her help or conveniences is to blame. On the other hand, her over-plus of work may be her own fault. Or grinding poverty may force the driving of every minute to procure enough to eat and to wear.

Well, a fault is like a disease. It is absolutely necessary to find a remedy for it. Also, the only way to do this is to get right down to the germ or cause of the trouble; the doctor who cannot diagnose properly is of no use, no matter what his knowledge.

I do not pretend to be a specialist in this matter of over-work, and I am hoping that my introduction of the matter will but serve to bring out the thoughts of those who really know more about it. But I am not altogether ignorant either, and a few thoughts have come to me. Such as they are, I give them to you.

In the first place, I have known what physical weariness means, quite enough to be able to sympathize with those who suffer from it; and more often I have known the absolute down-and-outness of mental weariness, and that means physical weariness, too. Even yet, the utter lassitude after weeks of student days in which "midnight oil" was burned, night after night, until two and three o'clock in the morning, is a very clear memory to me, and I remember very distinctly the thrill of horror which, after one prolonged bout of studying, shot through me when I drove to the top of the hill above our old Collegiate town and found that all the trees at a distance were dissolving and swaying in a sort of nightmare mist. It was the first chance in weeks of looking to a distance, and I thought I was losing my eyesight. It was taking time for the eye-focus to adjust itself after so much looking at books.

Of course, such application was a "fool thing." If I had my life to live over again I would not do it. But at the time I felt it as necessary as most of the over-tired farm women feel their incessant toll.

Now, to come down directly to our subject, we may lay it down as an axiom that no woman should be often—not to think of always—over-tired. She should not be were it only for the sake of her work, for it is impossible to do one's best work when one is bodily fagged. And she should not be for the sake of her temper, for an over-tired body means, very often, nerves on the raw, and consequent irritability and unreasonableness.

How to avoid the over-tiredness—that is the question, and a question that, I hope, many of you will help me to solve, for the sake of Lallie (?), and others.

To go back to our first summing up, it seems to me that each woman should diagnose her own case, and find out clearly the cause of it. If her continual weariness is due to ill-health in any way, she should fly to a doctor; often a change of diet or a course of some good tonic will work wonders. . . . If a thoughtless husband, who will neither hire help nor buy labor-saving devices is at fault, a bit of quiet reasoning with him might do good. A woman who keeps a house EARNs all the labor-savers she can have,—the washer, wringer, cistern, dustless mop, ironing-board, vacuum-cleaner, and so on, that mean so much in the doing of house-work. She earns them, and, as a fair deal, should have them. Her husband is likely to have all the things he needs for his farm. . . . If, however, poverty is at the back of the trouble, the solution is not easy. There is no money to buy labor-savers; both husband and wife have to work early and late just to keep things moving. It is a difficult problem, but in this case, as in the case of many who have not real poverty to contend against, surely ingenuity—"brains"—might be used in making labor lighter and eliminating it, in some ways, altogether.

There are some women, for instance, who never think of asking their children to help with the work, or even to attend to themselves. I know one woman who actually butters the bread of her thirteen-year-old daughter. Think of it!—And yet doing a few light tasks every day will hurt no child. It is good for

a child to grow reliant. To be the patience to things at first, up quickly, and they have not teaching. If y will "have to" he will "have to" doesn't go to insinuate in an home is disagree may be ery s the seeds of anything at a perhaps, indeed, false ideals that your children s ness as long a have told you mother who us daughters, "If y help me with t five years old seven, and the is simply, wond it, and are, al happiest childre plenty of time t a mother is nev children need pl

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a child to grow up independent and self-reliant. To be sure, it may take a little patience to teach children how to do things at first, but they really pick them up quickly, and are glad to do them if they have not been spoiled by brainless teaching. If you tell a child that she will "have to" wash the dishes, or that he will "have to" hoe the garden, if he doesn't go to school, if you suggest or insinuate in any way that work about home is disagreeable or a drudgery, you may be very sure that you have sown the seeds of resentment against doing anything at all that will be helpful—perhaps, indeed, seeds that will result in false ideals that will clog the minds of your children and hamper their usefulness as long as they live. I think I have told you before, of the very wise mother who used to say to her twin daughters, "If you are good, I'll let you help me with the dishes." They were five years old then. Now they are seven, and the amount of work they do is simply wonderful. They love to do it, and are, altogether, the best and happiest children I know. They have plenty of time to play, too, for so wise a mother is never going to forget that children need play.

Make a regular business of thinking out how steps and stoopings may be lessened, and you will be surprised at what you can accomplish. In the large manufactories, you know, every movement is considered, and arrangements so made that the most can be done for every expenditure of strength. If your clothes-line is across the yard, have it brought near the door and put on a reel, if possible; then, when you are putting out the clothes, avoid stooping any more than necessary by having a clothes-pin bag at your waist, or the clothes-pins in a basket slid along the line by a bent-wire hook. Save steps in-doors by having everything you work with in the kitchen close together. Close up a room or two, if necessary to save work; your health means more. Think out a thousand plans.—And, when spring comes "never let up" until you have your vegetable-garden in a place where cattle cannot break in and do damage; some women have run miles in a summer chasing out breachy animals. If the garden is small, and must be entirely worked by you, agitate until it is all fenced in, if only with poles; wire poultry-netting, of course, is nicer, as it keeps out hens. But if the garden is placed in an open field, and can be worked with a horse, all the better. Beets, parsnips, carrots, etc., do splendidly if planted in this way.

There, I was going to write you a "beau-ti-ful" dissertation on work to-day, and I find I have landed in the middle of a cabbage-patch! But, never mind, the heroics can stand over until the next time.—Not "heroics" either—at least in any sense of levity. I do really think that work—one's "own" work—carried out with common sense and enthusiasm, is one of the very best things in the world for us all; and I do hope you will read the extract on the subject—from Mr. Comfort's book (see first page).—Next day, then, some more,—if you can stand it. JUNIA.

Subject for Women's Institute Meetings.

Mrs. H. L. B. writes me for subjects for Women's Institute meetings, which will be "interesting and instructive." It seems to me that a committee of women in connection with each branch should be best fitted to draught programmes; they know the needs of the neighborhood and the ability of the members. Subjects that might be very difficult in one place might be comparatively easy in another. We pass over those that deal with very simple branches of domestic science.

- However, here are a few that may be suggestive:
1. A few schemes for artistic and inexpensive farm-house furnishing.
 2. How to accomplish the maximum of housework with the minimum of steps.
 3. Scientific cookery.
 4. How to correct faults in the girl and boy.
 5. The ideals that should be placed before children.

6. The "all-round" woman.
7. What to do in the sick-room.
8. How to avoid diseases.
9. The small flower and vegetable garden.
10. How to lay out "grounds."
11. The schoolhouse as the social and intellectual center for a neighborhood.
12. Rural clubs.
13. College extension-work for the rural districts.
14. How shall we attain the highest intellectual development in our neighborhood?
15. Which is better—to be rich and commonplace, or merely comfortable—and cultured?
16. How to enjoy Nature.
17. How to improve our neighborhood.
18. The boundless interest of life.
19. The ideal citizen (taking "citizen" in the broad sense).
20. Books and reading.
21. The Concord writers (Emerson, Thoreau, Hawthorne, Margaret Fuller).
22. The "Lake Poets" of England.
23. The Barbizon painters.
24. The Pre-Raphaelites.
25. Canadian painters of to-day.
26. What is Socialism? (Perhaps Mr. Putnam would not think this safe.)
27. Biographies of famous people, e. g., Leonardo da Vinci, Galileo, Christopher Columbus, Dante, Rousseau, Pestalozzi, and Froebel, St. Francis of Assisi, Michael Angelo, Catharine II of Russia, Lincoln, Audubon, Madame Curie, Dr. Montessori, Lloyd George, Marconi, and Dr. Graham Bell.

28. How to keep from being mentally lopsided.
29. Why are we Here?
Now, I think this list is fairly comprehensive.

May I take the opportunity to say that we are continually receiving letters asking for points for papers for Epworth Leagues, Women's Institutes, debates, etc. It is scarcely necessary to explain that we cannot undertake to do this work. If we did, we should have neither time nor space for anything else. There is one thing, however, which I shall be glad to do in this column whenever asked,—that is, give the names of books that may be helpful. You simply cannot carry on the most successful community-uptift work without books—books for reference and for inspiration. If you haven't a good library near you GET BUSY AND START ONE. I'm afraid that's slangy, but it conveys the idea. Even ten new books a year in a neighborhood circulating library, if of the right kind, may do wonders.

QUERIES—BUTTERMILK CHEESE.

Dear Junia,—Would be grateful to you, Junia, if you would kindly inform me, through your valuable corner of "The Advocate," of the following:
What causes a green scum to rise on oatmeal porridge that has been cooked with salt, in aluminum double boiler, over night? The porridge is not stirred till morning.
What advantage is there in dissolving baking soda in a liquid rather than mixing it with flour, in baking cakes and cookies?
Can cheese be made from buttermilk? If it can, will you explain how it is done?
BLEEDING HEART.
Perth Co., Ont.

I have asked a chemist about the green scum. He says that aluminum should give off no chemical product, and that probably the scum is due to something in the meal, and not harmful.
It is all right to mix soda with the flour if you sift it very thoroughly, so that no little lumps will be left to make spots. It is usually mixed with the liquid in order that it may be very thoroughly dissolved.

- Here are two recipes for buttermilk cheese:
1. Heat the buttermilk to 130 or 140 degrees. Stir carefully while heating, then cover and let stand for about an hour. Next, pour the curd into a cotton bag and hang up to drain. Finally, salt to taste and mix in two tablespoons rich cream for each pound.
 2. Place the buttermilk in a pail and heat over hot water to 75 or 78 degrees F., then cover and leave 1½ to 2 hours. Next, drain, and put the curd in a draining-bag over night, stirring occasionally to let the portions inside come next the cloth. Salt to taste, press well, and put the cheese up in small

packages wrapped with parchment paper, or in a crock.—Buttermilk cheese is somewhat finer in grain than skimmed-milk cottage cheese, and keeps very well in a cold place in winter.

Midwinter Cookery.

Breaded Pork Chops.—Take thick pork chops. Cut flank and tenderloin from the bone and skewer to chops, pressing into good shape. Sprinkle with salt and pepper and put in frying-pan, covering the top of each with dried bread-crumbs. Pour in boiling water to depth of half the chops, cover closely, and bake in a slow oven 1½ hours. Remove cover, sprinkle with buttered crumbs, and brown. Arrange on a hot platter and garnish with celery tips, pouring tomato celery sauce around.

Tomato Celery Sauce.—Chop fine one onion, and one bunch of celery. Add 2½ cups canned tomatoes from which some of liquor has been drained, salt and cayenne to season, 2 tablespoons allspice, and ½ cup vinegar. Simmer 1½ hours.
Stuffed Apples (to serve with roast pork).—Add a bay leaf, 1 teaspoon minced onion, ½ teaspoon salt and a little cayenne pepper to 2½ cups white stock or gravy. Simmer 20 minutes and strain. Pare and core 10 tart apples and put them in a granite pan. Pour the stock over and simmer until tender. Remove the apples and add to the stock 2 cups blanched chestnut meats, also 4 teaspoons currant jelly. Simmer until the nuts are cooked, then fill the cored apples with them. This is enough for ten persons.

Baked Celery.—Cut the celery in pieces and cook in a very little salted boiling water. Drain, but keep the stock. With it make a sauce, using 4 tablespoons butter and 4 of flour. Add the drained celery, salt and pepper to taste, and ½ cup grated cheese. Pour into a baking-dish, cover with buttered crumbs, and bake to a delicate brown.

Fried Celery.—Make a batter with 2 cups flour and 2 teaspoons baking powder well sifted together, 1½ cups milk, 2 beaten eggs, ½ cup melted butter, and a pinch of salt. Cut the celery in 3- or 4-inch lengths and simmer in boiling salted water until tender. Drain dry. Dip each in the batter and fry in hot fat until brown. Serve on a hot dish with a horder of celery leaves.

Fine Potato Doughnuts (Will make 60 doughnuts).—Take 6 large potatoes, 2 cups sugar, butter size of egg, 3 eggs, 6 cups flour, 6 level teaspoons baking powder. Boil potatoes, mash fine, and cool. Sift the flour and baking powder together, then rub the butter into them. Add sugar, potatoes, and eggs well beaten. Mix well, knead lightly, and roll out. Cut out with a ring cutter, or twist into "twists" and fry, a few at a time, in plenty of smoking-hot fat. Deep fat used in this way may be used over and over.

Sour Milk Griddle Cakes.—Two cups flour, 1 teaspoon salt, 2 tablespoons sugar, 1 level teaspoon soda, 2 cups sour milk, 2 eggs. Heat a griddle very hot, then grease with fat, salt pork; drop the batter on, and when full of bubbles turn. Serve on hot plates with butter and syrup, or sugar, or jam. If the milk is very rich, the eggs may be omitted.

Some Ideas on Economy.

Editor "The Farmer's Advocate":
A short time ago I read with great interest a letter on "False Economy," by Sandy Fraser, in your interesting paper. While agreeing in every respect with Sandy's "Auld Wumman's" arguments, I have been thinking of dozens of little ways in which we might, and I believe should economize; not for our own sakes any more than for those of others. No doubt in this age most people are extravagant. We have come into extravagance so gradually that we do not realize how extravagant we really are. If it would not be out of place, I would like to mention a few ways in which people go to excess, and a few ways in which they might economize, not falsely.
We all know that in this terrible war-time there are thousands who are in need of even enough food and clothing to merely keep them alive; there are also the brave boys who are giving up everything, even life itself, for king and country and our freedom. There may be

some in our land who could obtain work if they would. These should be in want; but look at the homeless Belgians and others who have suffered on account of the war. While these people who have done so much for us are in such dire need, here are our women with new hats, sometimes two or more, every season. What excess and folly! If the last season's hat is clean and respectable, why not wear it this season and give the price of this season's hat for someone's relief? The price of that one new hat might save a dozen lives, and what real good does the hat do the wearer?

Our women, too, may have several fine new dresses—one for every occasion. Some evidently go places, even to God's House, just to show their finery and to see others. Why may we not dress respectably and not superfluously?
Our young people, even when our country is in such a critical condition, indulge in useless amusements. Why might these not be dropped for a time at least? We agree with Peter McArthur that we need and should have plenty of amusement, especially in the winter, but why not amusements which everyone may conscientiously join in?

I would now like to bring up some smaller matters, for, "pennies make the dollars." I know of a woman with a certain kind of mop, which opens to receive the cloth, and shuts on a coil. She saw me with one, and asked if it lasted long, as hers rusted out in no time, and she had to get a new one. A new one didn't cost much, but a whole lot more than a bit of old fence-wire that my husband put in when mine rusted out, and now 'tis as good as new, and cost, you might say, nothing.

Again, if some people get a boot ripped, or a kettle leaky, off they run to town and pay at least ten cents for every shoemaker's chore and every solder. We purchased a cobbler's outfit and soldering outfit combined for less than two dollars, and have saved many times that amount in the year we've had them, and yet we don't do one-quarter of the boot and harness fixing which we might do by using our spare time, wet days, or long evenings. We've soldered enameled kettles with great success several times, and thereby saved the price of a new one.

There are dozens of little ways similar to these mentioned in which we might economize. Just think, if you could fix this thing yourself for nothing, or very little, instead of going off to town with it, you will be surprised what handy, economical people you will become.

As for the styles, and so on, let us think of these needy ones before it is too late, else we may be in the same condition; who knows? At any rate, I do not believe that God approves of such "gaudy butterflies" as some of us make of ourselves.

Hoping this letter may be a help to someone, I will now close.
MARION.

Can We Really Stop Worrying.

By William S. Sadler, M.D., in Ladies' Home Journal.

It is not easy to say just what "worry" is. A patient once described her mental state to me by saying that her "mind took tight hold of an idea and just would not let it go." So worry might truthfully be called a continued fit of mental concentration. Of course we must concentrate our mental energies to do first-class brain work, and the danger of worry is ever present with a high degree of mental concentration. The mind takes fast hold upon a group of ideas in order to perform efficient mental work. That is right. Where the wrong comes in is when this intellectual concentration is too long continued and the mind fails to release its grasp; then we have worry. So worry is really a sort of "one-sided mental action." It may be defined as fear-thought in contradistinction to fore-thought. Fore-thought is highly necessary to the smooth running of our daily affairs, while fear-thought is wholly unnecessary and highly injurious.

MAN IS THE ONLY ANIMAL THAT WORRIES.

Now it is a curious fact that man is the only animal that makes himself

ridiculous by worry. The biologists teach us that intelligence—the liability to worry—exists only in those animals that possess associative memories. Numerous experiments made upon lower animals serve to prove that much of their apparent intelligent action is purely instinctive, hereditary. They do not reason intelligently. The lower forms of life seem utterly unable to profit by experience: they have no associative memories, and, of course, they are not addicted to worry. In ascending the scale of animal life interesting problems are encountered when we reach the ant tribes. It seems highly probable, too, that wasps actually possess certain powers of associative memory.

And so the higher we ascend in the scale of animal life the greater the tendency to worry, that is, to borrow trouble, to look with fear and misgiving upon that which the future holds in store, or to be unduly apprehensive concerning the difficulties and problems of the present.

Of course the fact that man is the only animal that worries is but a demonstration of the superiority of the human mind over that of the lower animals. Animals are not given to looking backward, and, as a rule, they do not look very far into the future; on the other hand the mind of man sweeps back over past ages, and, from the page of history, as well as from the perplexing incidents of the present, forms those conclusions which cause him to look with fear and trembling into the future.

The causes of human worry are indeed varied, but in the last analysis they are usually found to consist of some form of irritation, anxiety or fear. It not infrequently develops that numerous habits of life and physical practices are contributory to the worry habit. The use of alcohol and other forms of psychic and physical transgression are often discovered to be the hand-maidens of worry and sorrow. Lack of self-control is another great cause of worry. A strong will would cure nine-tenths of this unnecessary form of grief.

Whatever the immediate cause of worry a solicitude for our own general welfare, material prosperity and mental happiness, or that of our loved ones, must be recognized as the real cause of all our worry. We worry lest we may lose or fail to obtain those material blessings which will make us and our friends happy.

The desire for happiness is generally found to be the real, fundamental cause of worry. But it is not amazing that we should forget that under no circumstances can worry ever contribute to our happiness? On the other hand worry and anxiety never fail to detract from the enjoyment of life, to destroy mental peace, and not infrequently they store up for the future that which will everlastingly destroy the very happiness for which we are wont to worry.

Many good people entertain the false notion that the possession of material riches can bestow happiness upon the soul. They are fully possessed of the idea that riches are essential to the joy of living. Accordingly they toil in anxiety, endure hardships and experience much mental torture in their efforts to provide themselves with these supposed essentials to life and happiness.

WHAT SOME FOLKS WORRY ABOUT.

Some people constantly worry because they are "criticized" either justly or unjustly. They are always being "neglected" or "slighted," even by their best friends. Other people are depressed and dejected because they are sure that their great worth is not fully appreciated by their associates or employers. Still others fret and fume and worry because they feel that it is their duty to resent some supposed or real injury or injustice which has been done them.

Other people worry because they are inordinately timid—backward. Many earnest souls constantly fear imaginary difficulties, fear they will make some awful blunder, or that they will utterly fail to "make good" with the task they have in hand. Some persons always feel that after they have done their best they will still be unable to meet the demands which their position makes upon them. This abnormal timidity necessarily results in producing an unnatural state of discouragement, brooding and despondency.

Still others worry over their grave responsibilities. As a rule these anxious individuals are found to be altogether too overanxious about certain minute details and other matters for which they are not at all personally responsible and over which they exercise little or no control; and yet they constantly worry over these things to the point where they lose both appetite and sleep.

Other people have a perfect passion for worrying over the weather. The sun either shines too much or else it rains too much. Some men and women are literally human barometers. As the result of their rheumatic tendency, coupled with constant thought of the weather, they are able to detect a storm long before the Weather Bureau is aware that it has appeared upon the horizon. Such unfortunate individuals are able to keep themselves on the border of nervous prostration by their constant worry over the weather and from fear that all their plans will be upset by rain, storm or drought. Still others are possessed with the constant fear of being struck by lightning. They are actually terrorstricken, not by the lightning but by loud thunder, forgetting that the thunder cannot possibly harm them. Others, again, find fault with everything and everybody. They have literally acquired the "kicking" habit. They seem utterly unable to see good in anybody or to be satisfied with anything.

HOW CERTAIN PROVERBS HAVE ACTUALLY DONE HARM.

Many a good old saying, proverbial for its truthfulness when properly understood, has resulted in destroying the peace and happiness of those who have come to worry over its too literal fulfillment. Take such a proverb as "Look before you leap." This old saying certainly contains good advice, yet I have known a number of earnest men and women who have long remained stationary in their life plans, looking with such forebodings into the future that they have failed to take advance steps; they have been altogether too fearful to leap, they would not dare take a chance, they were afraid of the risk. Old age is creeping upon them, and their careers have been ruined by a too literal interpretation and overregard for such a good proverb.

Another of the old proverbs responsible for causing much worry is the oft-repeated saying, "Whatever is worth doing at all is worth doing well." While this proverb contains sound and wholesome advice for every young man and woman it must also be remembered that every day of our lives we are called upon to perform a large number of wholly unessential tasks, tasks which are but temporary scaffolding, as it were, compared to the more important character structure we are building. It is true that these minor tasks must be done with sufficient care so as not to endanger the real structure we are erecting; nevertheless it would be a great waste of energy to try carefully to square, polish and paint the scaffolding which stands but to-day, and to-morrow is torn away.

This is true of much of our common work. Each day's efforts should be wisely divided up into the essential and the unessential, and it should be no occasion for worry and self-reproach that some trifle has to be slighted or altogether neglected, as we review the events of the day in its closing hours. If the brick and mortar you have put into the real character structure are sound and good, if your wall has been raised up true to the plumb, the miscarriage of some detail should not distress nor worry you.

Many conscientious young people have worried altogether too much over such teachings as "Be sure you are right, then go ahead." Owing to their peculiar mental makeup, their naturally diffident and hesitating disposition, they can never be quite sure that they are absolutely right, and so they never go ahead. For years they remain stationary in their life plans, first contemplating one thing, then another, and then pretty soon they begin seriously to worry because they have not gone ahead.

And so we see that the misunderstanding and misinterpretation of even good and true teaching may lead to such a one-sided and extreme regard for truth

and duty as to create a condition of mental uneasiness and dissatisfaction, eventually leading to chronic worry with all its evil effects upon mind, soul and body.

WHEN HOODOOS TAKE HOLD OF PEOPLE.

Among the gravest mental causes of worry that take hold of people are undoubtedly the various "phobias" or specialized fears. Men and women otherwise intelligent and sound of mind are frequently found to be horribly afraid of certain foods or the drinking-water of certain localities; still others are possessed with a great fear of such numbers as thirteen, twenty-three, etc. Others live in constant fear of some particular disease; they live through a long life constantly nursing the fear that they will eventually die from cancer or some other malignant disorder.

I have known really intelligent people to live all their lives in everlasting dread of some great disaster. They are positive that they will eventually be killed in an earthquake, struck by lightning, or be swept off the earth by a cyclone. Still other people are possessed with an unnatural gravity fear; they fear great heights, and will not even go up in a high office building if they can possibly avoid it. Others fear animals during the summer season, carefully avoiding all dogs for fear of being bitten by a mad dog, not knowing that mad dogs are just as plentiful during the winter as during the so-called "dog days." There seems to be no end to these special worries, and, when long continued, they often crystallize themselves into definite obsessions.

Thousands of suffering souls are held to-day by the chains of imaginary bondage. They have no real physical disease. Their ailment is in reality a spiritual infirmity. They might go free at any time, but they do not know it; they will not believe it. They are very much like the elephant in Central Park, New York City, which has stood in one spot for many years, manacled with heavy chains. He had never left his tracks except when he had been unfastened and led away by his keepers. One day it occurred to his overseers to remove the manacles from his legs and see if the elephant would leave his place. After the beast was free from his shackles he steadfastly refused to move; even after he was allowed to become exceedingly hungry, and when food was placed within a few inches of his reach he stood in his tracks swaying from side to side and trumpeting loudly, but not a step did the huge beast take toward the food. The elephant was free, but he did not know it. He stood there in his old place just as securely bound by chains of his own mind as if the steel bands were about him as of old.

Altogether too many of us are like the elephant. We are absolutely free to-day, but we won't realize nor believe it. We cannot be surprised when an elephant behaves in this way, but it ought to be a cause for amazement when intelligent men and women will allow themselves to be held down by fictitious bondage.

WE ARE PREDISPOSED TO WORRY BY SLEEPLESSNESS.

There is another circle of sensitive souls who are worried throughout life by the imaginary hereditary legacies handed down by fathers and mothers in the shape of physical weakness and bodily deformities. Still others, owing to a weakened nervous system and overstrain, fall into a condition of nervous irritability that renders them very liable to anxiety and worry upon the least provocation. Such persons—in fact, all of us—are greatly predisposed to worry by sleeplessness. Sound sleep is a great preventative of the mental state that borders on worry.

The state of the physical health is not an infrequent occasion for worry. Many worry because of lingering illness or unusual affliction, while others grieve because of the sickness and suffering of their loved ones.

Another form of worry is the fear of "old age." As the years pass over us the arteries begin to harden, the memory gradually fails, the skin becomes visibly wrinkled and leathery, and old age brings its peculiar worries to the majority of people. There is a ten-

dency to undue anxiety on the part of the aged that is born both of the retrospective view of life and anticipation as to what the future holds in store. Especially is this true in the case of those who do not have sufficient means laid up properly and comfortably to care for them to a good old age.

WHEN WORRY ENTERS THE HOME.

With women I suppose that household problems are the greatest single cause of worry. The proper rearing of the boy, the successful training of the girl, the usual petty cares of the home, to which all women are subject, together with the modern servant problem—all serve to create anxiety and worry, together with the useless and unnecessary toil connected with the family life. Housewives are constantly worried over the proper performance of little things, that, as an actual fact, would in no way affect the family happiness if they were left undone.

Many a mother, when she wakes up in the morning, begins the day in a state of anxious and nervous agitation; she feels herself already crushed under the weight of all the burdens she will have to bear. The little household cares and domestic trials which every mother has to bear are not to her simple annoyances; they are actual catastrophes, and she suffers every one of these calamities a score of times before they come. By noon her life is swarming with apprehensions, difficulties and troubles; worry reigns supreme on the throne of her mind, and distraction has come to possess her soul. At the close of the day this unhappy mother has borne a hundred sorrows which were wholly imaginary, produced entirely by abnormal emotion.

HOW WORRY CAN PRODUCE POOR HEALTH.

Now worry grows by what it feeds on. When we nurse and nourish this spirit of dissatisfaction it acts and reacts upon ourselves until the very soul is filled with discontent and the mind is permeated with complaining. However small and trifling the matter over which we begin to worry the insignificant cause of our mental dissatisfaction will be found entirely sufficient to feed and nourish the spirit of uneasiness to the point where it gains possession of our minds, threatens to wreck our careers, and constantly harasses the soul to the point where life is unbearable.

Some of these people seem to have actually brought themselves to the place where they enjoy poor health. They would not be happy if they could not complain of headache, backache, stomachache, or something of the kind, and their complaints have become chronic; they enjoy enlisting the sympathy of their fellows, having delight in describing their sufferings and explaining their miseries; they are constantly consulting the almanac and the patent-medicine advertisements to find some new cause for physical complaint, and they usually find what they are looking for.

There is little doubt that nine-tenths of all the ordinary functional diseases of the body originate in the mind, and it is worry that produces the soil from which these infant diseases spring. The seeds of mental disease and physical affliction may fall upon us thick and fast, but if they fail to find the soil of worry and depression in which to develop and grow we are not likely to be seriously affected by their presence. It requires not only a germ to produce disease, but also a favorable soil in which it may grow. Worry produces just that condition of mind and body most favorable to the growth and development of all the vicious diseases which prey upon the mind and destroy the body.

The direct result of worry we know now is disease, and there is where the crime of the matter comes in. The fact that certain nervous diseases are directly caused by worry admits of no doubt whatever. Take the general condition known as "neurasthenia," commonly called "nervous prostration." Patients suffering from this condition are usually spoken of as all "run down." The truth is that they are all "wound up," and, as a result of high tension coupled with mental anxiety, they have broken down.

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TO SAY "WORRY NOT" DOES NOT MEAN "RUST OUT."

I well remember hearing some one say: "An imaginary worry may be unreal, but a worried imagination is very real." And this is true. The basis of our worry may be entirely false and unreal, but the final results of the worry upon the mind, soul and health are in every sense real and highly injurious.

Where we really want to get in this whole matter of worry is at the place where we strike an intelligent balance between the dangers which threaten us on the one hand from too much work and the friction and worry attendant thereon; and on the other hand from too much rest and the rust of character which is sure to follow. We do not want either to "worry out" or "rust out," but to possess that wisdom which will enable us to lead the normal, rational life which promises deliverance from the threatened dangers of both these unnecessary extremes. We must be able to strike a practical balance between friction and rust.

Both mental idleness and physical inactivity predispose people to worry. Those who would cease from worry must constantly guard against intellectual inactivity. For if it is true that Satan finds mischief for idle hands it is even more true that he is sure to find worry for idle minds; and worry obscures our outlook on life, both for this world and the next. It throttles the higher powers of the mind; it beclouds our view of life and distorts our appreciation of the duties thereof. We should always remember one salient point, and it is this: mental work never kills. It is mental work plus worry that is so highly destructive to strength of brain and health of body. Mental work coupled with unusual worry and its resultant insomnia presents conditions which will more quickly destroy the physical health and break down the mind than any other possible combination of mental vices and physical sins.

CAN WE REALLY CURE OURSELVES OF WORRYING?

Now can we really cure worry? Can we actually stop what we are all prone to do: bring an anxiety into our minds that makes for worry? For life is full of chances to worry—no doubt of that.

That we can absolutely cure worry admits of no question.

The first important truth to learn is that we cannot escape from worry so long as we permit the causes for worry to remain active in our lives. We must first take hold of the causes: do away with what causes us worry. And the way to do this is, first of all, to train the mind to think positive thoughts. For instance, you hear your children making a loud noise. Instinctively you say to yourself: "The noise of those children will drive me crazy." Now don't do that. The moment that thought comes to you stop! Banish it; calm your nerves and control your mind by thinking like this: "The noises of those children are simply innocent; they will not drive me crazy; they won't hurt me at all." I know a patient who absolutely overcame insomnia in this way. When he retired the thought would always come to his mind: "I cannot sleep, I cannot sleep." Of course he didn't sleep. Then he simply changed it and said: "I can sleep, I can sleep, I will sleep." And he did sleep, and cured himself of stubborn insomnia.

No amount of mental resolution and moral determination, in and of themselves, will be able to overthrow and cast out worry. Positive thinking is not only required in the battle against worry, but it is essential that our positive thinking shall also be opposite thinking. That is, we must overcome worry with its opposite mental states: we must cultivate faith and trust. This is the one vital factor in the permanent cure of worry. Here is the idea in concrete: Replace the worry thought with an opposite thought which will make the mind happy and entuse the soul. Drive out fear-thought by exercising faith-thought. This is the only cure for worry, and when backed up by the strong resolution of a determined will this method will always be found effective without any exception. Then when you have commanded the mind to cease worrying keep right after it and see that it does. In all these little things

that harass one's soul, as some one has said: "Don't forget to remember the probability that you have not, as well as the possibility that you have, made a mistake."

The secret of the self-treatment of worry is the cultivation and acquirement of self-control. You must be captain of your own mind. Summon to your aid all possible spiritual help, moral resolution and mental decision. Dictate positive commands to the faculties which direct the physical sensations that influence the bodily state, and you will be amazed how they will obey you. Learn to be a master of your moods. Keep the mind filled with faith-thoughts. Fear-thought is the ancestor of all worry; and do not forget that fear-thoughts can only be successfully driven out of the mind by faith-thoughts. Persistently cultivate cheerfulness, confidence, restfulness and trustfulness.

LEARN TO DISCOUNT YOUR ANXIETIES.

The majority of our fears and many of our sensations should be liberally discounted. We should not form the habit of taking our emotions and feelings too seriously. They are very liable to impose upon us, to alarm and frighten us unduly. We will find it exceedingly difficult, of course, to exercise self-control over some fears and worries, but look at the results! They are certainly worth the hardest kind of effort.

But do not make the mistake of resisting worry as such. It is increased many times by all effort to overcome it in this manner. The strain of the effort makes it increasingly more difficult to drop the strain of the worry. Do not dignify every little petty fear with so much attention. Learn, as I say, liberally to discount all your fears, emotions, sensations and worries. In all the realms of human experience there are to be found no greater deceivers than theseimps of false fear and sham feeling.

Just see how easy it is to overestimate the value of our fears and apprehensions in the excitement and consternation which prevail in some homes when a thunder-storm is approaching and the lightning is severe. The mother becomes panic-stricken, her face assumes a frightened expression, and she begins to gather the children around her in one corner of the room, or maybe in the closet, where they pass the time in fear and trembling, momentarily expecting to be hurled into eternity by a malicious bolt from the skies. What is the result? The children are led to look upon the elemental forces of Nature with fear and terror. How much easier, how much healthier would it have been, to have taught the beauties and grandeur of Nature's powers through the storm. And you can make up your mind to do it, too, if you only will.

What most of us need to get rid of our worries is to practice the art of minimizing our difficulties. Do not look at your obstacles with a magnifying-glass. Make up your mind that in many instances you will be able to rise triumphant over apparent defeat and move right on in the even tenor of your way. Do not become greatly disturbed by the little ripples of life which pass through your experience from day to day. Don't take everything too seriously. Get some joy and pleasure out of life. Learn to live only one day at a time. You need not live your past life over every day. Don't borrow trouble from the future.

Abraham Lincoln had a splendid motto for every trouble that came to him. He would simply say: "And this, too, will pass." There is a good deal of common-sense in that saying of the street: "Never trouble trouble till trouble troubles you."

PIN YOUR WORRIES DOWN TO FACTS.

Pin your worries down to definite facts. Most of our difficulties are vague and indefinite. Many of our fears and worries are wholly imaginary. Try the practice of writing down in black and white the objects of your worry. This has helped hundreds. The process of writing worries down will usually disclose their absurdity and assist in the work of overcoming them.

Another simple idea that has helped thousands is the old plan of selecting one hundred beans, and, as the beans

are dropped one by one into a bag, repeat the following: "The worry is in the bean and the bean is in the bag."

If you are suffering from "fictitious" worry make a "declaration of emancipation." Ask yourself if your worry isn't about some unreal situations. If you find it otherwise, if it is real, then tell yourself that further worry is only useless; that it only makes a bad matter worse. Then resolve not to worry further, and follow up your resolution so as really to do it.

I must, of course, differentiate here between the man or woman who is trying to overcome worry and still conscientiously perform his or her duties to the world, and the common ne'er-do-well who neither worries nor thinks—happy-go-lucky sort of individuals are they—caring neither for their own progress nor for the progress and betterment of the world. They drift with the stream of time, taking everything just as it comes to them. I do not make a plea for the development of such as these. I recognize the necessity for thought, deliberation, meditation—for carefully weighing one's problems and difficulties. I believe in the concrete attention that belongs to every worthy problem. It is that chronic mental state, resulting from long-continued fret and distrust, doubt and despair, from which we are all seeking relief.

I wish we could all trust "Mother Nature" a little more than we do. Having done our part in the scheme of life how long will it be before we can quietly and confidently depend on Nature to do the rest? This we can do by thinking health-thoughts instead of disease-thoughts. Take your mind off your diseases, your aches and pains. Let the mind dwell upon the wonderful provisions which nature affords for regaining health. Think of the fresh air, pure water and good food, and engage in exercise of the body. Come close to Nature herself and replace the thoughts of disease with a mental current bearing messages of health and strength. Exercise good emotions, even if you have to put them on for the time being, and you will joyfully discover that ere long you have actually become what you at one time had to pretend to be. Let the mind be occupied with health efforts in the place of anxiety and evil foreboding. Give attention to the cultivation of health, and little time will be left for sorrow and sadness.

THE THOUSANDS WHO DO NOT SLEEP WELL.

Take the thousands of nervous people who do not sleep well. All day long they fear they will not be able to sleep. As night approaches they become more and more convinced they will not be able to sleep. They go to bed with the settled conviction that they will not go to sleep. Now such individuals, in addition to baths and other proper physical treatment, will do well to go to bed with the idea uppermost in their minds that they will sleep, and not care at all if they do not sleep. If you can't sleep relax and rest. That of itself will not only do you good, but by "giving up" you will be surprised how soon you will be asleep. It is the knowledge that they are awake that keeps thousands of people from sleeping. Relieve the mental tension, remove the anxiety, and you effectually destroy the state of worry.

Suggest to yourself thoughts of health and peace when you are in bed, just before you go to sleep, and let these thoughts rest in the mind as a part of yourself while you sleep. This self-suggestion to the mind is of tremendous value, for in time the mind will absolutely obey. See how it obeys many people who can resolve, just before falling asleep, to wake up at a certain time, and in the vast majority of instances they are able to wake up at just about the time settled upon in their suggestion. If you can resolve to do one you can resolve to do another, can't you?

If anxiety comes to you, and you are prone to say "it never rains but it pours," repeat to yourself the philosophy of the old lady who steadfastly by one saying refused to allow herself to worry: "Perhaps, after all, maybe it ain't so."

CHEERING OTHERS UP WILL CHEER YOU UP.

I know of a great many people who have cured themselves of chronic worry and despondency by simply enlisting in the "cheering-up business"—that is, going about systematically and persistently cheering other people up. A constant effort to help other people to cease worrying is sure to react favorably upon ourselves and prove of great assistance to us in our battle to banish fear-thought and worry.

Laughter and light-heartedness are of real and tremendous value in the treatment of these melancholic subjects of chronic fear. They seem to serve the purpose of relieving the "attention spasm"; they get the mind off itself for a moment, and contribute greatly to the ability of the individual to take up a new line of thought.

Cultivate the society of children and cheerful adults. There is many a chronic worrier about the home who would be cured by the advent or the adoption of a bright-faced baby. Children's light-hearted freedom from care and worry is contagious, and the men and women who live with them find it easier to live the "faith life" than the "fear life."

And as you come into contact with other people cultivate the ability to forget some things about them as well as the ability to remember others.

THE REAL ROAD TO DELIVERANCE.

Years of experience with myself and observation of others have convinced me that the less attention we pay to the function of any organ in the body the more regular and healthful that organ becomes in its action. This is why dyspeptics should never engage in the discussion of diet at mealtime. If you want the stomach to do the regular work and good work keep your mind off it when it has food in it. Do all your study of diet between meals, but at the table never think of your stomach. Every effort should be made to promote good digestion, and it is imperative that chronic constipation be removed. Combat portal congestion or stagnation of the blood in the liver by making frequent pressure over the abdomen or wearing at night a moist abdominal bandage covered with waterproof, and with dry flannel on the outside. Engage in exercises for the strengthening of the abdominal muscles.

An effort should be made, by proper breathing, to keep the blood circulating in the skin. Drink lots of water each day, eight glasses if you can, never with meals, however. Take cold baths and rub the body vigorously. Practice deep breathing all you can; few things will do more good. Don't sleep in close, stuffy bedrooms. It is really a crime. Come as near as you can to sleeping outdoors if circumstances make it possible.

These are simple rules, I know, but they are the best.

And last, but not least, if you would be successful in completely and finally overcoming worry do something helpful for your neighbor now and then. Live the Golden Rule. Do not allow your own artificial needs to accumulate unnecessarily and demand all your time. Reserve a little energy for Good Samaritan work and you will finish the day's tasks refreshed and satisfied, instead of hungry, thirsty and dissatisfied.

And of all things do not make the mistake of worrying now because you have worried in the past. Make a rule of saying and believing that "yesterday ended last night." Watch your habitual expression and cultivate one that is cheerful and happy. It will react on the mind and greatly help you in your fight against worry, and, finally, if persisted in you will win out.

CAUSE AND EFFECT.

Mr. W. K. Haselden, the well-known cartoonist, tells the following story:

"A man coming out of prison after ten years' penal servitude asked what was going on in the world.

"Well, there's most of Europe fighting, and the pubs are closed at ten in London," he was told.

"Go on!" exclaimed the ex-convict. "Well, I never! Fancy the pubs closing early having such an effect!"—Tit Bits.

Why the Turkey is Bald.

Once upon a time the fires of the world were nearly gone out. The days were growing shorter, and the cold of winter was coming.

"Who-o-o-o," said the Cold Wind, "the world is mine, the world is mine! Who-o-o-o-o!"

His words filled the birds of the air with sorrow. They wanted the world to belong to all living things. And the fires of the world were nearly gone out.

So the birds held a council to talk the matter over. They met in a thicket of oak trees. The eagle, being the king of birds, called the council to order.

"Friends of the Order of Flight," said he, "the fires of the world are nearly gone out. What shall we do? What shall we do?"

"Th, th," said the wild goose. "I will look in all the waters of the world and see if I can find one tiny spark of fire. Th, Th."

"Caw, caw," laughed the big black crow. "What a goose you are, to be sure. Fires in the waters of the world. Caw, caw."

"Tru-ally, tru-ally," said the blue-bird. At which all the birds set up such a chattering that the eagle had to call on the woodpeckers to rap with their hammer-bills and call the meeting to order again.

Rap, rap, rap. Tap, tap, tap. "Everyone must help," screamed the eagle. "I will soar into the air and see if I can find a tiny spark of fire anywhere."

"Early-early-early," sang the lark. "All the birds who can fly highest should go with the eagle."

To this they all agreed. Away flew the eagle, the lark, and the raven. But their efforts were all in vain. They could not find one tiny spark of fire anywhere.

"Who-o-o-o," said the Cold Wind, "the world is mine, the world is mine. Who-o-o-o-o."

Sorrowfully the eagle, the lark and raven returned to the council of birds in the thicket of oak trees.

"Cheer-up, cheer-up," greeted the robin. "Be cheery. Be cheery."

But the birds were about to give up in despair when a little brown sparrow flew into their midst. "Chip, chip," he sang in a happy voice, "I have found a tiny spark of fire in the hollow of an old stump in a deep forest. Chip, chip."

Away flocked the birds to the deep forest. Each in turn tried to pick the tiny spark of fire out of the stump, but all of their efforts were in vain.

"Who-o-o-o," laughed the Cold Wind, "the world is mine, the world is mine. Who-o-o-o-o-o-o-o-o."

The tiny spark of fire began to grow smaller and fainter. The birds dropped their wings helplessly.

Evening came. Fainter and fainter the spark became, until it was only the tiniest, tiniest spark of fire.

"To-who, to-who," said the owl. "Who can save the fire for all living creatures? To-who, to-who."

"Whip-er-will, whip-er-will, whip-er-will," breathlessly sang the whip-poor-will. That gave the turkey an idea.

"Gobble, gobble, gobble," said the turkey. "I will whip the spark with my wings. Gobble, gobble, gobble."

To this they all agreed. All night long the brave turkey fanned the tiny spark with his wings. Brighter and brighter grew the spark. Soon a tiny flame sprang up. And when morning came a fire burned in the hollow of the old tree in the deep forest.

The fire singed the feathers on the turkey's head. Oh, how he wanted to tuck his head under his wing! But he had spread his wings to their full length, and back and forth he had fanned the tiny spark of fire all night long.

The faithful turkey lost all of his beautiful feathers. His poor head was covered with blisters. But he never stopped his fanning until he had given back fire to the world.

As an honor to his bravery, all turkeys since that time have bald heads. And if you look carefully you will see little lumps on their heads that look like blisters!

That is the story the Indian father tells his little children when he uses the turkey's wing to fan his fire and make it burn brightly. He too, honors the bravery of the faithful turkey.—Carrie Hill Hoffman, in "The Epworth Herald."

The Twentieth Century Farmer's Wife.

[A paper given by Mrs. J. Venning at a meeting of the Harrietsville branch of the Women's Institute.]

Apart from the awful calamity of the world-wide war, which is casting a pall over civilization, the 20th century farmer's wife—if she be a Canadian—has cause to congratulate herself that she is living to-day. Compared with her less-favored sisters of centuries gone by, her position intellectually, socially, financially, and otherwise, shows an almost immeasurable improvement. From a condition of almost drudgery, many cases of which are within the memory of those present, she has risen to a position of equality, not only with her more ambitious city sisters, but with that superior creature called man, supposed to be her lord and master. It was not so very long ago that the farmer's wife was regarded merely as one of the accessories of the farm. Her worth was measured by her ability to do the less arduous manual labor. If she could manage the house at a minimum of expense, could knit and sew, look after the live stock and poultry, take care of the garden, help with the harvest, attend to the children, and get up a good meal (the latter being very important), she was considered a good wife, to be coveted, perhaps, by the less fortunate "men-folk" of the neighborhood. Should she be able to find time after all the duties were performed for a little recreation, there was no objection. A new dress was such a rarity that it was carefully treasured for many, many years, and finally handed down to posterity as an heirloom of "the good old days." There was very little time for such frivolities as reading, attending social functions, or travelling. An occasional drive in a heavy wagon to the nearest market town constituted the extent of her journeyings away from home. A church social or teameeting once a year rounded out the measure for those socially inclined, while the weekly newspaper was considered sufficient food for the mind.

This picture is not one bit overdrawn. Much more and much worse might be said of the condition of the farmer's wife in days that are, happily, gone by. But it is not my intention to longer dwell upon that condition. It is referred to chiefly for the purpose of comparison to remind you of what has been, and to direct your attention to what now is, and what may be expected in the future from the standpoint of progressiveness. It is said that comparisons are odious, but in this case we find an exception. All progress socially, morally, intellectually, financially, and religiously, are to be measured only by the improvement made in the environment, the health and the happiness of those affected; unless these are changed for the better, no progress has been made. Contrast the condition of the farmer's wife just spoken of with her present condition, and mark the difference. In the place of drudgery, we find at least a certain amount of comfort and ease; manual labor—for which woman was, in reality, never fitted or intended, has been reduced to the vanishing point. The little left consists of necessary housework, which every wife should know how and be willing to do. She can still show her skill in sewing and cooking, but it is a labor of love, not of necessity. The heavy work of the farm is now done by men and machinery. There is now time for the study of music, literature, art, and anything for which she has a talent. The farmer has learned to consult his wife on almost every matter concerning his business and finances. He allows her the proceeds from any department over which she has a special supervision. He treats her as his equal. He knows her worth. He takes pride in seeing her well dressed, and travel by railway and automobile is indulged in to the improvement of both body and mind. She now takes an interest in affairs outside the little world contained within the line fences of the

farm. Organizations composed of women have sprung up all over the country. They are engaged in charitable and other philanthropic work. In short, old things have passed away, and to-day we see the farmer's wife taking her place in the march of progress towards the betterment of the human race.

What is the cause of it all? The everlasting onward march of civilization, as represented in new ideas, new discoveries, new ideals, the falling away of prejudices, the realization that over all and above all is the immutable principle that mankind cannot stand still. There must be either progress or retrogression. We Canadian women are of the race that has long recognized and given credit to the Creator of all things, the inspiration from which our civilization is derived. This is our "culture"—spelled as is Christianity—with a "c." What of the future? Shall we regard it less optimistically because of the overshadowing menace now looming large on the European horizon? Will German "culture," represented by militarism, be permitted to overthrow and replace the progress of the centuries through which woman's emancipation has come? No; by all means, no. Not unless Divine justice has failed, and we are sure that it has not. There can be only one outcome. The women of Canada are doing their part in the battle. Let us, as 20th century farmers' wives, be fully appreciative of our glorious liberties and privileges and do our share.

Under this head, the artificial renewal and deodorization of air in schoolrooms and other occupied spaces is treated in The Electrical World (New York). The belief seems to be gaining ground among hygienists that such frequent renewal of air from outside sources as has generally been advocated is unnecessary, provided the inside air be ozonized, dried, freed from odors, and kept in motion. That such a radical departure from orthodox ideas will not lack opposition, is, of course, true, and we shall doubtless see, on the one hand, the open-airists conducting schools with open windows, and on the other, the ozonists keeping them tightly shut. Possibly both plans may be equally successful and equally sanitary. Says the paper named above: "The haze of honest doubt that has surrounded the ozone machine in some quarters should be largely dispelled by the results of the ventilation tests reported before the Buffalo meeting of the Society of Heating and Ventilating Engineers by trained physiological and psychological experts who point out, as reported in an earlier issue, that an ozonizer performed important service in keeping sweet and wholesome, for three hours at a time, schoolroom air which was being simply recirculated without the introduction of outside oxygen. These experiments place on a scientific basis the fact long suspected that the usual empirical allowance for ventilation has no relation whatsoever to the actual physiological needs of the human system. And they prove with finality that even a roomful of school children can work at full efficiency and comfort, breathing the same air three hours or more at a time, if that air is properly 'renewed' and deodorized. The psychological tests were continued over a period long enough to prove that no after effects were to be felt. The efficacy of the ozonizer was also demonstrated on the occasion when its operation was interrupted for a half-hour or so, the resulting 'stiffness' of the air in the room making itself at once apparent to teacher and pupils. And if we have now proved that instead of unnecessarily burning tons of coal to heat large cubic sections of cold outdoors which are simply passed through our buildings and discharged back to the winter breezes, it is only necessary to consume a negligible number of watt-hours to keep fresh and sweet air that has already once been brought to the temperature of comfort, it looks as if the scouted ozone machine was really one of the greatest little engines of conservation of this prodigal age."

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A New Idea in Ventilation.

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News of the Week

The British have withdrawn from Sulva Bay and the Anzac Zone on the Gallipoli. The evacuation was executed with only insignificant casualties; three men being wounded. The withdrawal of the British troops from this portion of the Gallipoli Peninsula closes an unfortunate chapter of the war from the British point of view. Landings were effected last April at these points with great loss, and British casualties on the Gallipoli have totalled about 100,000. The Anzac front is that section of the Allied line held by the Australian and New Zealand Corps. The first letters of the words were taken to form the name.

On December 20 Lloyd-George, speaking in the House of Commons, said, "In May when the Germans were turning out a quarter of a million of high explosives daily we were producing only 2,500 and 13,000 shrapnel. The Munitions Department now controls more than 2,000 munition factories, employing about 1,000,000 workers."

The late Booker T. Washington has been succeeded by Major R. R. Moton, commandant of Cadets at Hampton Institute, Va., as principal of the Tuskegee Institute.

During the nine weeks allowed to Britons in which to enlist under the Earl Derby scheme, some 2,500,000 men were attested.

Gen. Christian De Wet, one of the leaders of the South African rebellion against the British Government in 1914, has been released from prison on the condition that he refrain from participation in politics, and that he neither attend nor take part in public meetings, and that he does not leave the district without permission.

Capt. Franz von Pape, Germany's recalled military attaché, left New York for Rotterdam, on December 22, bearing a safe conduct to Germany from the Entente Allies.

Lloyd M. Bingham, one of the Ford peace party, died in Christiania, on December 22, and it is reported that Henry Ford, broken in health, is returning to New York, leaving the management of the expedition to the Women's International Peace Association.

It has been reported that an agreement has been reached, providing for the amalgamation of the Manufacturers' Life Insurance Companies, Toronto, and the Sun Life Assurance Co., of Canada, with head offices at Montreal.

On the front in France and Belgium there was no "strafing" tried on Christmas day. Plenty of good fare was provided to the British soldiers, and those not in the trenches or on active duty spent much of the day playing football.

An Eye-Witness of the "Gas Battle" at Ypres.

The Second Battle of Ypres, from Thursday, April 22, to Thursday, May 13, is perhaps the most notable single battle of the Western line, and for three different reasons. It was the first "gas battle"; it saw one of the most dangerous breaches in the Allied line that the Germans have been able to effect in thirteen months of fighting; and it was the battle in which Canada bought, at the price of her own heart's blood, a glory that will last as long as deeds of death find entrance to the Hall of Fame. In the story that Frederick Palmer has written of the "Princess Pats" we have had one view of the terrible ordeal of the Canadian troops, who were thrown in to fill up the gap in the French lines that the asphyxiating gases caused. Another and quite different view is given by one who perhaps was closer in touch with the action during those three weeks, and who describes vividly the first appearance of the greenish-yellow gases. In The Methodist Recorder (London), Rev. Owen S. Watkins, an army chaplain and a veteran of the Sudan campaign and the South African War, in which he was twice mentioned in dispatches, tells of the coming of the gas.

The bombardment on April 20 by the city well-armed huddled in cellars, but abandoned, save and the hero station in the wounded charges in the midst given in the first shells plished.

The city had the previous habitable, and thousands of holidays its promenaders, and the light shrapnel burst high little damage down. Now, he using heavy eight-inch high- at least of our brought up, and effect, fifteen- in guns. The bur shell is like a whole creation ger is nearly 1, a hole in the these projectiles across and was There is nothing calculated to pu man as the Ger first of these s completely dem house—everybody ruins—killed fif playing in the st twenty other pe more than a o from the explosi

The strain up grew ever grea finally came to r tically bound o of wounded broug increasing number progress of the their frail shells deadly certainty The process of ev activity of the a bulance-drivers v on with the slugs until the crash o their building beg cussion outside, a were flung agains tered them. In t came the poison relates:

Going into the moments' relief fr ophere of the war attracted by a ve north, where the French. Evidentl eagerly we scanned field-glasses, hopin edge of the progr we saw that whic hearts to stop l wildly and in conf "The French ha claimed. We had it seemed so im able. For a whi that the whole Fr treat. Gun-limbers fugitive Zouaves a them. In a few front of the as fugitives—soldiers Peasantry from t round. The story not believe; we terror-stricken im gray cloud had sw turning yellow as country, blasting shriveling up the courage could face "We can fight, b not have us stay rats in a sewer."

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Witness of the "Battle" at Ypres.

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The bombardment of Ypres that began on April 20 had, by the 22nd, rendered the city well-nigh uninhabitable. Several hundred inhabitants still lurked in cellars, but above ground the city was deserted, save for the flying ambulances, and the heroic crew of the dressing-station in the Rue de Lille with their wounded charges. An idea of the havoc in the midst of which they worked is given in the writer's description of what the first shells some days before accom- plished.

The city had been rent and torn by the previous bombardment, but still was habitable, and in it were living many thousands of civilians. On Sundays and holidays its streets were black with promenaders, and none seemed to heed the light shrapnel which from time to time burst high above the houses, doing little damage except to tiles and windows. Now, however, the Germans were using heavy siege guns; six-inch and eight-inch high-explosive shells were the least of our terrors, for they had brought up, and were using with deadly effect, fifteen-inch and seventeen-inch guns. The bursting of a seventeen-inch shell is like a volcanic eruption; the whole creation rocks; the radius of danger is nearly 1,000 yards. I have seen a hole in the ground made by one of these projectiles which measured fifty feet across and was nearly thirty feet deep. There is nothing I have yet met so calculated to put the fear of death in a man as the German 42-cm. gun. The first of these shells which hit the city completely demolished a big three-story house—everybody in it perishing in the ruins—killed fifteen children who were playing in the street, and wounded some twenty other people, some of whom were more than a quarter of a mile away from the explosion.

The strain upon the hospital corps grew ever greater. When the order finally came to remove, they were practically bound down by the great mass of wounded brought in to them in ever-increasing numbers, even while the slow progress of the German shells toward their frail shelter was marked by a deadly certainty of ultimate destruction. The process of evacuation, in which the activity of the already overworked ambulance-drivers was indispensable, went on with the sluggishness of a nightmare, until the crash of breaking windows in their building began to follow each concussion outside, and large pieces of steel were flung against the walls that sheltered them. In the midst of the uproar came the poison-gas, as the writer relates:

Going into the open air for a few moments' relief from the stifling atmosphere of the wards, our attention was attracted by a very heavy firing to the north, where the line was held by the French. Evidently a hot fight, and eagerly we scanned the country with our field-glasses, hoping to glean some knowledge of the progress of the battle. Then we saw that which almost caused our hearts to stop beating—figures running wildly and in confusion over the fields.

"The French have broken," we exclaimed. We hardly believed our words. It seemed so impossible, so inconceivable. For a while we almost thought that the whole French Army was in retreat. Gun-limbers passed at the gallop, fugitive Zouaves and Turcos clinging to them. In a few minutes the road in front of the asylum was choked with fugitives—soldiers and panic-stricken peasantry from the farms and villages round. The story they told we could not believe; we put it down to their terror-stricken imaginations—a greenish-gray cloud had swept down upon them, turning yellow as it traveled over the country, blasting everything it touched, shriveling up the vegetation. No human courage could face such a peril.

"We can fight, but the good God would not have us stay and be poisoned like rats in a sewer." Then there staggered into our midst French soldiers, blinded, coughing, chests heaving, faces an ugly purple color—lips speechless with agony, and behind them, in the gas-choked trenches, we learned they had left hundreds of dead and dying comrades. The impossible was only too true.

The immediate result was a four-mile breach in our line, and through this gap the Germans were pouring in their thousands. A wilder battle has seldom been

fought, and the prodigies of valor displayed are almost without parallel. The story of how the Canadian Division flung themselves into the gap has already been told by abler pens than mine. Overwhelmed by superior numbers, both of men and guns, sick to death with the poison-gas fumes, they fought such a fight as the world has rarely, if ever, witnessed before.

Our troops were called upon to face overwhelming odds. It was not merely that the enemy had a crushing preponderance of artillery, threw high-explosive shells of the heaviest weight, descended to the use of asphyxiating gas, but, in addition, their reserves of men seemed inexhaustible. Attack after attack was terminated, but ever their places were taken by fresh troops who, unlike ours, were not worn and shattered by long fighting. For days our fate hung in the balance; our reserves appeared to be exhausted; more and more, like Malplaquet, it became a soldiers' fight, dependent for victory upon dogged fighting and the invincible spirit of our men.

In the small hours of the Friday morning reinforcements reached them, and they began to "make good." At one critical period, the 13th Brigade, the shattered remnants of which had been drawn out from "Hill 60," had to be thrown into the fight to assist the hard-pressed Canadians, and in spite of depleted numbers and exhausted men, performed magnificently the task assigned to them. Later the Northumbrian Division—Territorials who had arrived from England only three days before—came to their assistance, and these untired troops proved themselves in every way the equals of the veterans by whose side they fought.

But when all have received their meed of praise, the fact remains that but for the Canadian Division we should have had to record a terrible disaster instead of a hard-won victory. For a solid week they fought, sometimes without food, for it was impossible to get it to them, always faced by overwhelming numbers, subjected to a shell-fire such as no troops had ever been called upon to face before, and constantly choked and poisoned by the asphyxiating gas-bombs, or the poison-gas which the Germans pumped into them. Small wonder that a thrill of pride ran through the Empire as the tale was told, and that Canada rejoiced even in her sorrow—she had lost the very flower of her manhood, but they died as heroes, and, in their dying, added untold glory to her name.

The chaplain describes the days that followed as "monotonous in their horror." Then came Sunday, May 2, when he was brought for the first time actually face to face with gas-warfare. As he says:

When the French were gassed we had seen something of it, but only the slighter cases had passed through our hands; now we were to see it at its worst. Finding they could not win "Hill 60" by fair means, they tried foul—asphyxiating shells were thrown, and then, favored by the wind, they pumped their poison-gas into us. In a solid bank it rolled down upon our trenches; our men did not break, but bravely faced it; with the result that they were overpowered in hundreds. Those that fell in the bottom of the trench never got up again; scores died in the trenches; over a hundred died in the regimental aid-posts and the ambulance dressing-stations; while of the men we sent to the clearing hospitals, a very large number had no chance of recovery. When I arrived at our advanced dressing-station I found it full to overflowing—houses, barns, out-houses, stables, and on the ground in the yard and garden they lay to the number of 300, faces purple, twisting and writhing in agony, dying by long-drawn-out torture, their piteous eyes asking for help—and there was none that we could give.

It was the most fiendish, wicked thing I have ever seen; the ghastliest wounds were sweet and pleasant beside it. To add to the horror, we were being bombarded. Heavy shells were falling—in Ypres, in the field in front of us, in the field behind us, splinters of shell were hitting the house, and we were in constant fear of having our patients wounded where they lay. In that black day the only bright spot is a little service held among the men of the Cheshire Regiment, whom I found rest-

ing in their dugouts. Lying down behind a bank, so that the splinters of shell should not get us—we sang the old familiar hymns and worshipped the God we love. It was an unconventional service, and I think the first occasion on which I have preached lying down, but it was none the less a season in which we found God very near.

Wednesday, May 5, again the gas swept down upon us, and "Hill 60" was lost. Immediately after breakfast Captain Beddows, R. A. M. C., and myself had started to ride to the advanced dressing-station. It was a glorious morning, and we had a delightful canter over the fields, but, as we drew near Ypres, to our horror we found men lying all along the road gasping out their lives, and with sinking hearts we recognized the deadly effects of the German gas. At 8.30 the death-cloud had swept down upon them; the men had not been able to face it; these had run gasping until they fell, black in the face and dying—some had run three miles.

"We can fight, sir," the men panted; "we don't mind shot and shell—but to be poisoned like rats!—it ain't war; it's murder."

All along the road we met them, until at last the dressing-station was reached. I wish I could forget that sight; but I never shall. For the first time in my life I felt my heart hot with bitter hate; nothing seemed bad enough for the men who had done this thing. As on the previous Sunday, the place was full to overflowing, and still they streamed in upon us—walking, crawling, helped along by comrades, lying in wagons and on gun-limbers. Major Hannafin and his helpers were at their wits' end; in twenty hours they had over 1,200 cases to deal with; more than 100 died in the dressing-stations, and in one regiment alone they had over 100 deaths. Toward evening the "Hill" was retaken by the 11th Brigade, only to be lost and won again on the following day. On the Friday 400 casualties passed through our hands—as they were wounded and not gassed, nobody seemed to be particularly depressed—and we were told that "Hill 60" had now become untenable for either side.

For another week the struggle continued, and then lapsed. In this war, says the writer, battles do not end at all in a grand climax, but rather "ebb away and die a slow death." The official date for the ending of the Second Battle of Ypres, he believes to be May 13. There followed on the 24th, however, a fourth gas-battle, in which the cavalry suffered especially, of which he says, in conclusion:

I am not going to describe it; enough has already been said to give you some idea of that horror; suffice it to say that in twelve hours 800 cases passed through our hands. But they were not such serious cases as in the previous attacks, for the men had been equipped with respirators, which greatly neutralized the effect of the gas, and since that date these have been so improved that now the gas is powerless to touch us.—Literary Digest.

Forgiveness.

TO AN UNKNOWN READER.

(By Lyman Abbott, in the "Outlook," New York.)

There are many instances in the life of Jesus Christ which answer your question. From them I select two.

Peter had denied the Lord. He had been warned beforehand; had, in spite of the warning, rushed into the dangerous temptation, had yielded to it and played the coward. The Gospel of John gives us an account of the first interview between Jesus and Peter after Peter's cowardly crime. One must try to conceive the scene: The Sea of Galilee, the early morning sun rising over the hills, the disciples wearied with their fruitless all-night fishing but awestruck by the unexpected reappearance of their Master, the breakfast which he had himself cooked for his disciples eaten, and the Master and his companions sitting on the beach, when the following conversation takes place between the Master and his humiliated disciple, robbed by his fault of his self-confidence:

The Master. Simon, son of Jonas, lovest thou me more than these?

Peter (hesitatingly.) Yea, I.o.d, thou knowest that I have-affection for thee.

The Master. Feed my lambs.

The Master. Simon, son of Jonas, lovest thou me?

Peter. Yea, Lord, thou knowest that I have-affection for thee.

The Master. Shepherd my sheep.

The Master. Simon, son of Jonas, hast thou affection for me?

Peter. Lord, thou knowest all things, thou knowest that I have affection for thee.

The Master. Feed my little sheep.

Jesus utters no reproach, not even any rebuke, prescribes no penance, demands no tears, wants no anguished repenting; but he probes the self-confident disciple, makes him probe himself and see for himself what his cowardly crime meant in lack of real, profound loyalty and love for his Lord. Then he gives Peter again, as it were, the keys of his office, and lays on him the whole duty of an apostle—a ministry to all sorts and conditions of men and women of every age, from the little children to the fathers and the mothers. The only condition which he requires of the repentant disciple is that he shall take up his work anew and carry it on with lessened confidence in himself and greater loyalty to his Master.

The second incident I will narrate here in the words of the Evangelist:

And early in the morning he came again into the temple, and all the people came unto him; and he sat down, and taught them. And the scribes and Pharisees brought unto him a woman taken in adultery; and when they had set her in the midst, they said unto him, Master, this woman was taken in adultery, in the very act. Now Moses in the law commanded us, that such should be stoned; but what sayest thou? This they said, tempting him, that they might have to accuse him. But Jesus stooped down, and with his finger wrote on the ground, as though he heard them not. So when they continued asking him, he lifted up himself, and said unto them, He that is without sin among you, let him first cast a stone at her. And again he stooped down, and wrote on the ground. And they which heard it, being convicted by their own conscience, went one by one, beginning at the eldest, even unto the last; and Jesus was left alone, and the woman standing in the midst. When Jesus had lifted up himself, and said unto her, none but the woman, he said unto her, Woman, where are those thine accusers? hath no man condemned thee? She said, No man, Lord. And Jesus said unto her, Neither do I condemn thee; go, and sin no more.

Why did Jesus stoop and write upon the ground? Not only that he might not look upon her in her confusion. His action turned all eyes from the wretched woman, in her anguish of shame and terror. She stood alone and forgotten; all eyes were then and have ever since been fixed on the figure of the Christ, wondering what and why he wrote in the dust. When he rose, he uttered no reproach, no rebuke even; he imposed no penance, spoke of no penalty, demanded of her no penitential tears. Only one evidence of her repentance did he ask, That she should go out into life and never repeat her sin.

These two incidents illustrate in action the message of the Gospel to the wrong-doer. It is this message which distinguishes the religion of Christ from all pagan religions, however high or noble the ideals which they set before their votaries. It is repeated again and again, not only by the Christ but by the prophets of the Old Testament and the Apostles of the New. It is the message of Isaiah, "Let the wicked forsake his way, and the unrighteous man his thoughts; and let him return unto the Lord, and he will have mercy upon him; and to our God, for he will abundantly pardon." The only condition is forsaking the sin and returning to God. It is repeated in the prophetic declarations that God buries our sins in the depths of the sea, that he blots them out of the book of his remembrance, that he remembers them against us no more forever. It is interpreted by the parable of the prodigal son, by the declaration of John that the sacrifice of Christ cleanses us from all sin, by the counsel of Paul that we forget the

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TWO-HUNDRED-ACRE farm for sale, five miles from Simcoe; clay and sand loam. For reference, apply Emma Finch, Simcoe, Ont.

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Cedar Posts For Sale: 1200 good sound fence posts cut last winter, 8 ft. long and from four to eight inches diameter at top; also green posts can be supplied in carload lots. Chas. A. Calder R. R. No. 1, Warsaw, Ont. Norwood C.P.R.

Cedar Posts Car Lots Green 4 1/2 ins. under 7 ins. by 8 ft. 9c., 7 ins. and up by 8 ft. 18c., 7 ins. and up by 9 ft., 22c. All bargains. Terms—Cash. Stamps for replies. Box 52, Gooderham, Ont.

Matriculation by mail prepares for entrance to almost any profession. Any or all subjects. Write Canadian Correspondence College, Limited, Dept. E E, Toronto, Canada.

Cedar Posts for Sale—Good sound, dry timber, no bark. Anchor "Y" braces. Line posts cut to your order, any length or size. Write, anyhow. **J. J. Cameron, Box 502, New Liskeard, Ont**

Wanted Custom Tanning. Horse hides and all kinds of skins and furs. Send them to me and have them tanned/soft and pli bl. Address: **B. F. BELL, Delhi, Ont.**

Buttons—Get up, quick. The hotel's affair!

Scottish Gentleman—Right, laddie; but if I do, mind ye, I'll no pay for the bed!

"I want a loaf of bread."
"White or Graham?"
"Doesn't matter; it's for a blind woman."

things that are behind and press forward toward the upward calling of God in Christ Jesus.

Christ did not palliate wrong-doing. He did not treat the wrong-doer as a victim more sinned against than sinning. He demanded repentance. But the repentance he demanded was not emotion nor words, but action. The only evidence of repentance he required, the only evidence he recognized, was ceasing to do evil and entering upon a new life of righteous service.

When one has committed a sin, his first duty is to recognize the fact, to seek for no justification, excuse, or apology, to consider what lesson his wrong-doing has for him, what revelation of his inmost character it makes to him. He is next to consider whether he has injured any one by his wrong-doing, and, if so, what he can do to repair the injury. Then he is to take up again the duties of life and go on, better prepared to fulfill those duties because he knows, as he did not know before, what are the weaknesses of his character and what the temptations which he must avoid. Whether this is to confess to others the wrong he has done depends wholly upon the question whether that confession will be of any benefit to them. No one is under obligation to unroll the book of his life and interpret its secret writing to the world, no one is playing false because he does not write in letters for others to read the story of his past, or even the secrets of his present experience. There is only One to whom this self-revelation must be made, and to Him only because in His help is strength for the newness of life to which He calls us.

Confession is never an end in itself; it is only a means to an end.

It is sometimes said by Gospel preachers that if one has repented of his sin and confessed to his heavenly Father, he is as if he had not sinned. This is not true. Sin leaves its indelible impress on the character. Innocence, once lost, can never be regained. There is a joy in forgiveness, but it is not the same as the joy of sinlessness. The Book of Revelation represents the forgiven in heaven singing their anthems of praise to him who has redeemed them by His blood. But this anthem of praise is declared to be a new song. Peter was never the same man after his sin that he was before it; the forgiven woman, never the same woman that she was before she had fallen. But to both there was given the experience of a new life, to both a call to service which they could better fulfill because they had known through their own bitter experience, not only their own weakness, but the needs of their fellow-men.

Our Serial Story

"THE CHAPERON."

By C. N. and A. M. Williamson.

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Chapter XXIX.

ROLAND LESTER STARR'S POINT OF VIEW.

(Continued.)

I believe that, in the dark ages, I was rather a good little boy. I used often to tell the truth, and the whole truth, even when most inconvenient to my pastors and masters. I gave pennies to the poor, unless I very much wanted them myself; I said "Now—I—Lay—Me," every night, and also in the morning till advised that it was inappropriate; and I sang in a boy's choir, so beautifully and with such a soulful expression in my eyes, that people used to pat my curls, and fear that I was destined to die young.

In those days, or even until a few weeks ago no one who looked at me would have believed me capable of plotting against young and innocent girls, annexing aunts on the hire system, or debating uncles-in-law with misleading statements. Yet these things I have done, and worse; for I have kept my word to Phyllis Rivers.

If I must commit a crime, my artistic sense bids me do it well; and then, of course, when one has started in a certain direction, one is often carried along a little farther than one intended to go at first.

That was what happened to me, in the affair of Robert van Buren and his fiancée.

I was pledged to Phyllis and myself to free the Viking somehow—anyhow. It was rash of me to give this pledge, also it was quixotic; and many hours did not pass after making it, before I was seized with regret, and convictions that I had been an ass.

Exactly how I was going to do the deed did not occur to me at the time, but I had an idea which fitted in with my other villainies so well, that it seemed really a pity not to add it to the richly colored pattern.

It was for this reason that I dreaded returning to the Hotel du Pays Bas from a walk about Utrecht, knowing as I did that the van Buren party would have arrived.

I stayed out, sketching, as long as there was any light, and got a few good bits of the old town; a shadowed glimpse of one of Utrecht's strange canals, unique in Holland, with its double streets, one above the other; an impression of the Cathedral spire, seen beyond a series of arched bridges; a couple of fishermen bringing up a primitive net, fastened on four branches, and sparkling as it came out of the water, like a spider-web spun of crystal.

I was careful not to appear till dinner-time; but one is obliged in self-defence to dine early in Holland, because what seems early to a foreigner seems late to a Dutchman. At seven o'clock I went to the L.C.P.'s sitting-room (it has become a regular thing for her to have a sitting-room), and behold, they were all assembled.

Nell was plainly dressed in the simplest kind of a white frock, but Phyllis had made quite a toilet. Poor child! I could guess why. She need not, however, have given herself the pains. The fiancée, compared with her, was like a withered lemon beside a delicately ripening peach.

The van Buren twins are delicious creatures; but they did not count in the little drama. Besides, they are, in any case, too young for drama. They are just beginning to rehearse for the first act of life; and I think for them it will be a pretty pastoral, never drama or tragedy, or even lively comedy.

I knew from Phyllis's description what sort of girl the fiancée would turn out to be, except that I didn't expect to find her quite so smart. Her dress, and the hat she had put on for the hotel dinner, might have come from the Rue de la Paix; which was all the more credit to her, as I have heard a dozen times if I heard it once, that she is very poor—as poor as she is proud.

Now was my time to set the ball rolling; and valiantly I gave it the first kick. I feigned to be much taken at first sight with the young lady from The Hague. At once I flung myself into conversation with her, in which we were both so deeply absorbed, that when the L.C.P. suggested going down to dinner, nobody can have been surprised when I said, "Please, all whom it may concern, I want to sit next to Freule Menela van der Windt at the dinner table." Indeed, most of the party have long passed the stage of being surprised at anything I do; a state of mind to which I have carefully trained them. The Viking, however, has not often seen me at my best, so he stared at this audacity, but on second thoughts decided not to be displeased.

Neither was the fiancée displeased. I did not attribute her pleasure to the power of my manly charms; but the young lady is the sort of young lady to be complimented by almost any marked attention from any man, especially when other girls, prettier than herself, are present.

I continued to absorb myself in Freule Menela.

She has, I soon discovered, a veneering of intelligence, and a smattering of information on a number of subjects useful in a drawing-room. We talked about Dutch art, and French art, and so many facts was the maiden able to

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BRED-TO-LAY O. A. C. strain—Barred Rock cockerels, one-fifty each; fine birds, Orville J. Bond, Paris, Ont.

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"Never!" ex deeply intereste about herself. Rotterdam!"

"But," I ventu eagerness, "if you whose interests a

launched at my head, that the lovely pink-and-white twins gazed at their future sister-in-law with ingenuous admiration.

Evidently she had gleaned from Robert all he had to tell about me, as well as about the other members of the party, for she is not the sort of girl to lay herself out for strangers unless she considers them worth while.

Apparently she did consider me worth while; and during dinner she had hardly a word for the Viking, who sat on her other side; but that was all the better for him, because it gave him a chance to talk across the table to Phyllis, and to look at her when he was sitting dumb.

"There's going to be an illumination this evening," said Brederode. "You know the parks and gardens you admired so much last night, as we came through the canal into Utrecht? Well, there will be colored lights there; and a walk along the towing-path would be rather nice, if any one feels inclined for it."

"Oh, do let's go!" exclaimed Phyllis; and the twins echoed her enthusiastically.

That was enough for Brederode, though neither Nell nor the L.C.P. replied; and I asked myself by whose side he was planning to walk. Had he proposed the excursion with an eye to monopolizing the English or the American Angel?

I stifled the pang which I could not help feeling at the thought that he should have either, and in a low voice asked Freule Menela van der Windt if I might be her cavalier, in order to continue our very interesting argument? I had already forgotten what the last one was about; but that was a detail.

Had she been a little less well-bred, I think she would have bridled. As it was, she really did smirk a little, in a ladylike way.

We took cabs, and drove out past all that was commercial, to the place where the towing-path began to be prettiest, and the illuminations the most fantastic.

I was in a cab with the fiancée and her prospective sisters-in-law; but when we got out to walk, I self-sacrificingly flung the twins to the Chaperon, and, alone, with the young lady from The Hague (she never lets you forget for five minutes together that she is from The Hague) I slackened my pace and regulated hers to it, that we might drop behind the others.

The towing-path and the canal were beautiful and fantastic as some night picture of Venice. A faint mist had risen out of the water at sunset, and the red, green, and gold lamps suspended from trees and barges seemed to hang in it like jewels caught in a veil of gauze. The trees arched over us tenderly, bending as if to listen to words of love. The soft rose-radiance that hovered in the air made lovely faces irresistible, and plain ones tolerable. Any normal man would have been impelled to propose to the nearest pretty girl, whether he had been previously in love with her or not, and the nearest pretty girl would have said "yes—yes," without stopping to think about her feelings to-morrow.

Freule Menela van der Windt is not pretty; but without her pince-nez, she looked almost piquant in the pink lights and blue shadows which laced our features as we passed, for which I was devoutly thankful, as it made my task comparatively easy. I found her softer, more feminine, more sympathetic, than she had been in the hotel. She would, she said, like to see America; and that gave me my chance. It was a pity, I told her, that such an intelligent and broad-minded young lady should not travel about the world before settling down in such a small, though charming, country as Holland.

Instantly she caught me up, with a little laugh. "Why should you take it for granted that I am going to 'settle down' anywhere?"

"Oh," said I, rather embarrassed at this direct attack, "I—er—was told that Mr. van Buren had been lucky enough to persuade you to live in Rotterdam."

"Never!" exclaimed Freule Menela, deeply interested in this conversation about herself. "I will never live in Rotterdam!"

"But," I ventured, with an air of sacerness, "if you should marry a man whose interests are in Rotterdam—"

"It isn't at all decided that I shall marry such a man," she answered sharply.

"Not decided?" I repeated anxiously. "Look here, you know, I don't think it's fair to other men that it should be taken for granted you're engaged, if you're not really."

"Why should it matter to other men?" asked the lady.

"Oh, well, it might, you see. There might—er—be some man who met you for the first time after he'd heard of your engagement, and who for his own peace of mind didn't dare let himself admire your brilliant talents as much as he would like to."

Now, I had got as far as I intended to go. Some dim idea of rescuing the Viking from the girl he doesn't love, to give him to the girl he does (and I do), had been floating in my mind ever since that stormy night at Enkhuizen. I had thought that Freule Menela was the sort of girl who might drop the meat for the sake of the shadow; but having indicated the presence of a floating, ghostly shadow—which might belong to any one or no one—I had no idea of advancing further, even to bestow happiness on Phyllis.

I had argued with my conscience, "If she's a woman who's ready to throw over the man she's engaged to, just because he isn't very rich or particularly eligible in her eyes, and because some other vague person looming on the horizon has more money than Number One, why, it's a sure sign that she accepted Number One because she couldn't get any one else, therefore she doesn't deserve to keep him, and she does deserve not only to see him slip away, but to see the shadow go with him."

However, I had not taken Freule Menela's talents into due account—or my own failings.

"Is there such a man?" she asked. "There might be," I cautiously repeated. "The question is, are you engaged to Mr. van Buren, or are you not?"

"There has been an understanding between his family and mine, for many years, that some day we should marry," she answered. "And, of course, he's very fond of me, though you might not think it from his manner. He often appears to feel more interest in women for whom he cares nothing, than in me, to whom he is devoted. That is a characteristic of men who have his reserved nature."

"I'm afraid I don't understand reserved natures," said I. "If I care for any one, I can't help showing it."

"I have often thought," went on Freule Menela, "of telling Robert van Buren that he and I are not suited to each other. My ideal man is very different. And besides, as I said, nothing could induce me to settle down in Rotterdam."

"You might make that the determining point," I suggested, "if you were looking for an excuse to save his feelings."

"Do you really think so?" she asked. "I certainly do. Then you could leave him the choice. Rotterdam, without you; the more lively place, with you. Oh! don't you think, for your sake and his, you ought to do this at once?"

"And a little for the sake of—the other man?" she asked, archly.

I dared not inquire, stonily, "What other man?" lest the work I had accomplished should be destroyed in a single stroke. So I said—

"Yes, and for the sake of the other man."

"You believe it would really matter to him?"

She looked up so anxiously as she put this question that, quite apart from the interests of Phyllis Rivers, I could not have dashed hers, or any other woman's hopes, by giving an unchivalrous answer. Let come what might, I could not deliberately bring the pallor of humiliation to a female face, especially after words of mine had once caused it to glow with pleasure.

"How could I believe otherwise?" I demanded; and my tone sounded almost too sincere in my own ears.

For a moment Freule Menela van der Windt did not answer, and I hoped that her thoughts had hopped to some other branch of the subject; but presently she

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Rising best strains of pedigree bred-to-lay stock. Early Maturity and high egg production and breeders selected on PRO-DER NOW. Cockerels \$2 to \$5 each. Eggs for sale.

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Yours truly, J. G. Carter

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Good live agents wanted in unrepresented territory.

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FREE LAND

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Each shirt is guaranteed to be satisfactory or your money will be refunded.

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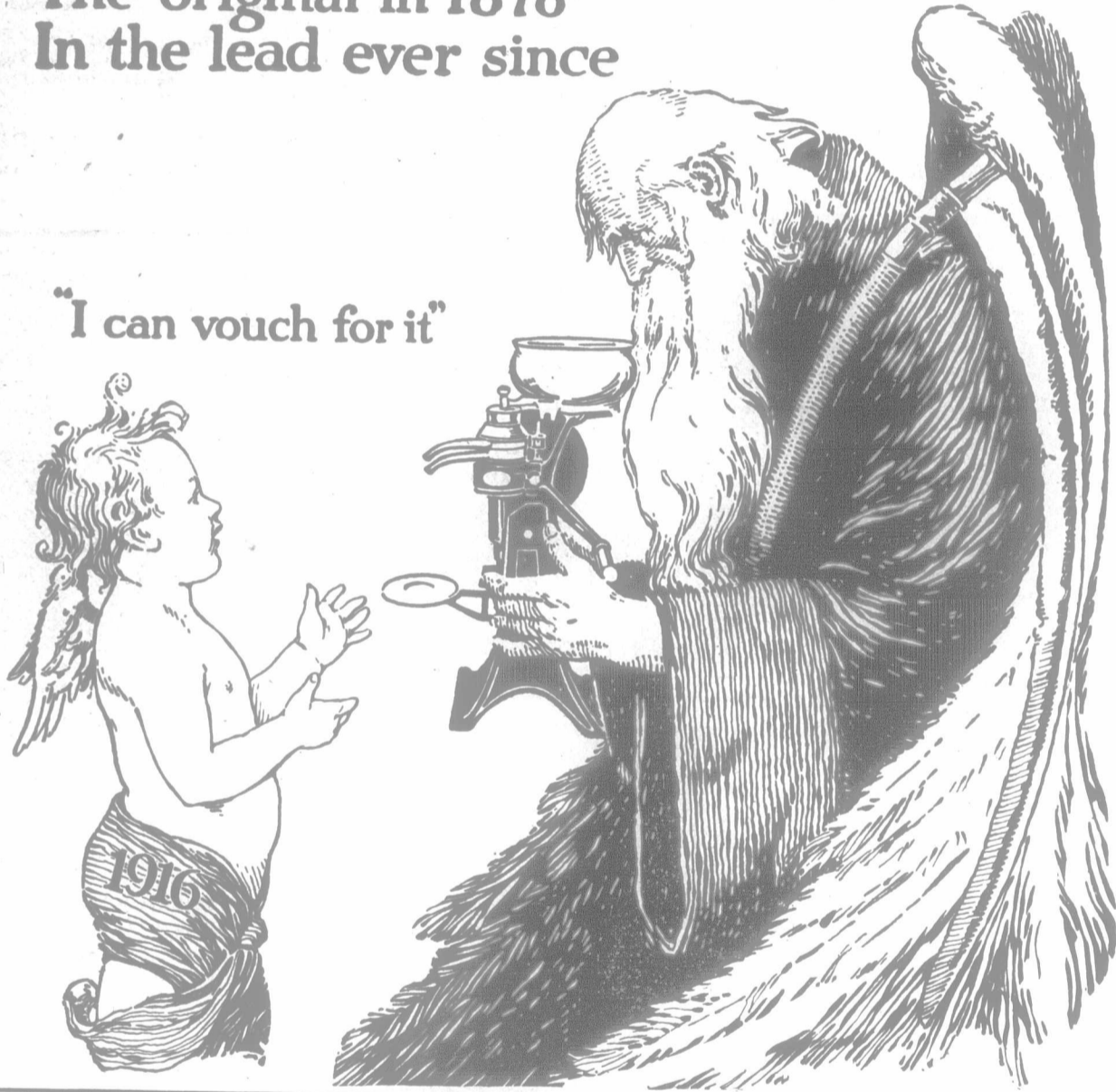
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DE LAVAL CREAM SEPARATORS

The original in 1878
In the lead ever since

"I can vouch for it"



broke out, as if impelled by impulse to utter her thought to a congenial soul.

"Isn't it strange how sometimes one seems to know a person one has only just met, better than another, with whom one has been intimate for years?"

"That is often so," I hurried to assure her, with the idea of establishing the commonplaceness of such an experience.

"You feel it, too?" Her eyes were fixed on me, and I answered "Yes," before I had time to decide whether, at this point, it would not be safer not to feel it.

"I've often been told that American men are very impulsive. But—are there many like you?" asked Freule Menela.

"Lots," I said quickly.

"Oh, then it's really true that it is quite a usual thing among your country people, for a man to tell a girl he cares for her, when he has seen her only once?"

"I—er—really don't know about that," I answered, beginning to be disturbed in soul.

"You know only how it is with yourself?" Freule Menela murmured, with a girlish laugh that betrayed suppressed excitement. "Well, Mr. Starr, I think it would be foolish to pretend to misunderstand. I have heard much about you—perhaps you have heard a little of me?—yet you have taken me by storm. The thing I love best is art. You are a great artist—and you are a man of the world. You have all the fire of genius

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W. H. & J. S. HUNTER, Orangeville, Ontario

10 Shorthorn Bulls

and 40 females. Shropshire and Cotswold ewes for sale at prices within the reach of all.
JOHN MILLER, Ashburn, Ont., Myrtle Station, C. P. R. and G. T. R.

—and geniuses have a right to do things which other men may not do. I believe you have made me more interested in you, in these last two hours we have spent together, than I have been in any one else in as many years. And because of you, and what you have said—so delicately yet so unmistakably—I am going now to take your advice about Robert."

Before I could stop her, even if I had had the courage and presence of mind, she walked quickly away from me, and joined Phyllis and van Buren, who were sauntering a few yards ahead.

My brain whirled, and threatened to give way in the horror of the situation. I could have shouted aloud with the shrill intensity of a drowning man, "Alb, save me!" But Alb was far in front, strolling with the van Buren twins, while the one van Buren in whom he is really interested walked behind him with my temporary aunt. And in any case, he could have done nothing. Before my stunned wits had time to rebound, Phyllis the sweet and gentle had turned and flown to me, as if for refuge, like a homing dove threatened by a hawk.

"Brother dear," she whispered, "may I walk with you, please? Freule Menela says there is something she has been wanting all day to talk over with Mr. van Buren; so I thought I had better leave them alone, and drop behind with you—if you don't mind having me?"

"Mind!" I echoed in my turmoil of spirit. "It's a happy relief."

"I thought you seemed quite fascinated by Freule Menela," exclaimed the poor innocent one. "I asked Mr. van Buren if he were not jealous."

"How unkind of you!"

"I didn't mean to be unkind—at least, I hope I didn't," said Phyllis. "Only, do you know, dear brother—since I am to confide my real feelings to you—I'm never quite sure of myself where that girl is concerned. I can't stand her. I'm so sorry for poor Mr. van Buren. What do you suppose he answered when I asked him that question about being jealous of you—that rather naughty question? He said, 'Would to Heaven she were his, not mine!'"

Had I been on St. Lawrence gridiron, I could not have helped chortling.

"I'm not at all sure she isn't," I muttered, under my breath; but Phyllis caught the words.

"What do you mean?" she gasped. "Oh, it can't be you mean anything, do you?"

"Well, anyhow, I mean that it's very likely she won't long be his," I explained, fired with anxiety to please the girl at any cost.

"It sounds too glorious to be true. It can't be true! But if it could! It's no use saying I wouldn't be glad—for poor Mr. van Buren's sake; he's so much too nice for her—mercenary, conceited, selfish little creature."

"Right, on every count," said I.

"I don't quite understand you," said Phyllis. "But I can't help feeling that, if anything splendid does happen, it will be all through you—somehow. You promised me, didn't you?—well, I don't know exactly what you promised; but it made me feel happy and sure everything would come out well, that night when you said you'd like to have me for a sister."

"Did I say that?" I asked in surprise.

"Didn't you? I thought—"

"Go on thinking so, then," I sighed; "and anything else that will make you happy—little sister."

"Thank you. Now I know, by the mysterious way you're looking at me, that you have done something. I believe you made him—I mean Mr. van Buren—come to see us again sooner than he intended to."

"Perhaps. And perhaps I made him bring Freule Menela with him."

"Did you? I wish—but no. I mustn't think of that."

"Wait a few hours and then think what you like," said I. Yet I spoke gloomily. I could see where the Viking was to come in. But I could not so clearly see how I was to get out.

We walked a very long way before any one seemed to wonder where we were going, and why we should be going there; but at last we came to a tea-garden, or a beer-garden, or both; and the L.C.P. said that we must stop and give Tibe a bowl of milk.

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able. Further partic
Pomona Farm

Tweedhill A
also females. If you
write:
James Sharp, R.
Cheltenham

Aberdeen A
Walter Hig
Brig
Mention T

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Get a high-class Angus bull and breed the champion steers. I have show-ring quality bulls from 10 to 24 mths. of age, also choice 1 and 2-yr-old heifers.
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Middlebrook A. Angus—For Sale are several choice prize-winning sons of my 1915 gr. champion bull, Black Abbot Prince, and his Toronto and London 1st prize 1/2 brother, also winning daughters of the same. **John Lowe, Elora, Ont., R. M. D.**

Aberdeen-Angus The cattle now in demand. Some choice heifers and a few young bulls from the imported sire. "Prada" A. DINSMORE, Manager "Grape Grange" Farm, Clarksburg, Ontario
For Sale—Clydesdale Stallion, registered, sired by Lord March, out of Pomona Matron, No. 33676. Black, 4 white stockings and blaze. An exceptionally well built and promising horse. Price reasonable. Further particulars from **Pomona Farm, Cobourg, Ontario**

Tweedhill Aberdeen-Angus. Choice young bulls of serviceable age; also females. If you want anything in this line write:—**James Sharp, R.R. 1, Terra Cotta, Ontario Cheltenham, C.P.R. & G.T.R.**

Aberdeen Angus For sale—males and females any age.
Walter Hall, R. R. No. 4, Bright, Ont.

Mention The Advocate

Not a member of the party who did not appear singularly absent-minded, on stopping and grouping with the others again, not excepting Tibe himself; but his absent-mindedness was caused only by the antics of a water-rat, which he would have liked to see added to his milk. When it occurred to him to drink the milk, unenriched by such an addition, we were all eating pink and white ices, and Dutch cakes that must have been delicious to those who had no Freule Menela sticking in their throats.

Phyllis walked beside me all the way back to the hotel, and was dearer than ever now that, through my own quixotic act, I saw her rapidly becoming unattainable. But, as the ladies said good-night to us at the foot of the stairs, Freule van der Windt contrived to whisper, as she slipped her hand into mine—"For better for worse, I've taken your advice, Mr. Starr. I am absolutely free."

"How did you manage it?" I heard myself asking.

"Robert insisted on living in Rotterdam. He wouldn't even consent to winter at The Hague, though it's so near; so his blood is on his own head."
"And joy in his heart," I might have added. But I did not speak at all.

"Haven't you anything to say?" she asked coyly; though her eyes, as they fixed mine, were not coy, but eager; and I felt, eerily, that she was wondering whether the millions, of which she'd heard, were in English pounds or American dollars.

I hesitated. If I replied "Nothing," she would probably snatch Robert back from Phyllis' lips, and I had not gone so far along the path of villainy to fail Burne-Jones Angel now.

"I will tell you what I have to say to-morrow," I answered, in a low voice; and then I am afraid that, to be convincing, I almost squeezed her hand.
(To be continued.)

Trade Topic

SUITS FREE!

Remarkable Cloth That Won't Wear Out!
Now readers, would you like a suit or pair of pants absolutely free? A most astounding offer is being made by a well-known English firm! They have discovered a remarkable Holeproof Cloth. You can't tear it! Yet it looks just the same as \$20.00 suitings. You can't wear it out, no matter how hard you wear it, for, if during six months of solid, hard grinding work every day of the week (not just Sundays) you wear the smallest hole, another garment will be given free! The firm will send a written guarantee in every parcel. Think, readers, just \$6.50 for a man's suit, and only \$2.25 for a pair of pants, sent to you all charges and postage paid, and guaranteed for six months' solid grinding wear. Now, don't think because you are miles away you cannot test these remarkable cloths, for you simply send a 2-cent postal card to **The Holeproof Clothing Co., 56 Theobalds Road, London, W. C., England,** for large range of patterns, easy, self-measure chart and fashions. These are absolutely free, and postage paid. Send 2-cent. postal card at once! Mention "The Advocate."—Advt.

Gossip.

H. M. Douglas, of Elmvalle, Ont., whose advertisement runs in this paper, is one who is interested in the horse business of this Province. His specialty is stallions, of which he handles a number every year, and few there are who can size up a horse in less time or with better judgment than he. During the past year he has done a big business, and just now has only two on hand. Anticipator (imp.) 258, a chestnut, foaled in 1902, sired by the great Rosador, and dam by the equally noted Danegelt. Anticipator has won many prizes and his share of championships, and at the late Guelph Show was second in a strong class. He has lately been sold to W. T. Foley, of Landsdowne, Ont. The other stallion on hand is the French Coacher, Leonard 52 (imp.), a chestnut, seven years old, standing 16 hands 1 inch, and weighs 1,300 lbs. He is a big, stylish horse, with superb action and beautiful underpinning, and well broken to harness. He was sired by the Madison Square Garden champion, Trovan (imp.), and has himself been a prominent winner, this fall winning championship at Three Rivers, Que., in a class of eight. He is for sale. Write Mr. Douglas to Central Hotel, Elmvalle, Ont.

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Brooklin, G. T. R., C. N. R. Myrtle, C. P. R.

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Woodholme Shorthorns For Sale—Four bulls sired by Imp. Lord Gordon, fit to head good herds, and a number of cheaper bulls for graded herds, from good milking families. Also a few good heifers in nice condition that I can sell worth the money. Mail orders filled with greatest care. Write your wants.
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There is no case so old or bad that we will not guarantee Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 4-minute applications cure. Works just as well on sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of Fleming's Vest Pocket Veterinary Adviser. Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durably bound, indexed and illustrated. Make a right beginning by sending for this book.

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HE IS LESS DANGEROUS.
Eliminate the danger and increase the value of the young bull by dehorning him. The most successful dairymen, drovers and shippers use and recommend the **KEYSTONE DEHORNER** as the most efficient instrument for the purpose. Write for booklet.
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Imported Dairy Shorthorn Stock. Imported English Berkshires. Young pigs now on hand for sale.
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Six young bulls 8 to 14 months. Eight females, those of breeding age in calf. Some qualified in R. O. P. and others from R. O. P. cows. Among these some choice show animals. Prices right. Terms to suit purchaser.
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high class young bulls from 7 to 18 months, 15 young cows and heifers, straight, smooth big kinds of choicest breeding including several families that have produced dairy test winners. I never was in a better position to supply you with a good young bull at a more reasonable price. Write me or come and see them.
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Long distance Phone, Lindsay, Ont.

1854-Maple Lodge Stock Farm-1915 SHORTHORNS AND LEICESTERS

We have now for sale one Red bull eleven months from one of our record cows. Also some younger ones, very desirable stock. Two ram lambs and four ewe lambs remain for sale. Choice ones at very moderate prices.
MISS G. SMITH Clandeboye, R. R. 1, Ont.
Lucan Crossing one mile east of farm

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Our herd of pure Scotch shorthorns are mostly direct from (imp.) stock. Three very choice bulls for sale, also females. GEO. D. FLETCHER, R. R. 1, Erin, Ont. L. D. Phone, Erin Sta. C.P.R.

SHORTHORNS, bulls, females, reds, roans, size, quality, breeding milkers over 40 years, cows milking 50 lbs. a day. The English, Rothchild's bull Mortimer in herd, the kind you want. Prices easy. Thomas Graham, R. R. 3, Port Perry, Ont.

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Bred direct from imp. stock. Six dams, cows and heifers due to calve in March and April at prices that will please the buyer.
L. K. WEBER, Hawkesville, Ontario.
Please mention "The Farmer's Advocate."

Questions and Answers. Miscellaneous.

Line Fencing.

A owns farm. B owns 26 acres bush land alongside. A's farm is all cleared and line fence run between. A sells his farm to D. D claims all the line fence. Can he do so? He said he would take half away and make B build it.
Ontario.

Ans.—Assuming that A built the line fence, we think that D is entitled to it; but we do not think that he is in a position to compel B to do fencing as proposed.

Kinds of Chickens and the Best Sheep.

1. Are there two kinds of White Wyandotte chickens?
2. Which is the better kind of sheep, Leicesters or Shropshires?

SUBSCRIBER.

Ans.—1. There is only one kind of White Wyandottes, but breeders, by making different selections and matings, have grown apart in that some are looking for egg production, and others for the compact show bird. On account of these different ideas, some White Wyandottes have become a little more open and a little longer in the back than the specimen that measures up to the points required by the Standard of Perfection.
2. If one took a vote as to which was the better sheep, Shropshire or Leicester, the results of the referendum would indicate just about who kept Shropshires and who kept Leicesters. A man must surely have preferences and likings peculiar to himself. The whole livestock enterprise is built upon this trait conspicuous in stockmen, and extremely conspicuous in the most successful ones. Study different flocks, and study the market to which you will cater, and form your own conclusions.

Succession Duties.

1. When succession duties were first introduced, was the amount a person was worth the same as now, before the Government claims a percentage?
2. If not, state the amount then and now, both with and without heirs.
3. What per cent. of the estate does the Government claim, both with and without heirs?
Ontario. A SUBSCRIBER.

Ans.—1. No.
2. Then, ten thousand dollars, or when the property passed to father, mother, husband, wife, child, grandchild, daughter-in-law or son-in-law, of the deceased, one hundred thousand dollars; now, five thousand dollars, and twenty-five thousand dollars, respectively.
3. The duties are graduated according to amount of estate and relationship of beneficiaries to the deceased, and they range from one per cent. to twenty per cent. For further information we would refer you to The Succession Duty Act (Revised Statutes of Ontario, 1914, Chap. 24), The Succession Duty Act, 1914 (4 Geo. V, Chap. 10), and The Succession Duty Act, 1915 (5 Geo. V, Chap. 7), the provisions of which are very comprehensive and elaborate.

CLEARVIEW CHESTER WHITES.

The far-famed herd of Chester White swine owned by D. De Coursey, of Mitchell, Ont., was again the front at the Winter Fair in Guelph, and added many fresh honors to the already long list of top prizes, including dozens of championships won at Toronto, Ottawa, London and Guelph. At the late Guelph Show, besides championship honors, the most laudable win of the herd was first, second and third on litters of three, the progeny of one sow. This was something seldom done by any herd of any breed, and the more valuable as demonstrating the quality of the herd, when it is taken into consideration the high-class entries they were competing against. Bred from first-prize winners and champions for generations, the breeding stock of the herd, which comprises thirty brood sows and three stock boars, are all that the breed can make them in type and quality. At all times for sale are young stocks of both sexes, and any age desired, and pairs and trios not at all. Mr. De Coursey has also a well-selected herd of Scotch Shorthorns, and has for sale some young bulls up to eight months of age.

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W. D. JACKSON, Secretary
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For Sale—15 bulls 8 to 14 months old, several of them prize-winners at Toronto and London, sired by the noted Imported bulls Right Sort and Raphael. Also for sale—20 heifers and cows of choice breeding and quality for show or foundation purposes. State your wants and we will send copy of pedigree and prices. Mail orders a specialty, satisfaction guaranteed.

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20 IMPORTED BULLS

These imported bulls, along with 10 home bred bulls may now be seen at our farms. There are some choice ones among them. We also imported four cows and a heifer, all of which are forward in calf. An invitation is extended to anyone interested in this class of stock to visit us at any time. Correspondence will receive our most careful attention.

Burlington Jct. G. T. R.

J. A. & H. M. PETTIT,
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10 Bulls serviceable age, all good ones (some herd headers) and are offering females of all ages. Have a choice lot of heifers bred to Clansman = 87809 =; also four choice fillies all from imported stock.
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PLEASANT VALLEY FARM SHORTHORNS

Your opportunity to buy a good shorthorn bull as a herd header or to raise better steers is right now. We have ten good ones for either purpose by imp. Loyal Scot, also several cows and heifers. Write us (before buying) GEO. AMOS & SONS, Moffat Station, Ont., C.P.R. (11 miles east of Guelph.

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One of the largest collections of Scotch Shorthorns in America. Can suit you in either sex, at prices you can afford to pay.
J. A. WATT, ELORA, ONT.

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 Ont. 'Phone and telegraph via Ayr.

Shorthorns

RICH IN BREEDING, HIGH IN QUALITY
My herd of Scotch and Scotch-topped Shorthorns was never stronger in number nor in quality than now. I have the most fashionable blood of the breed in the Scotch, as well as the greatest milking blood strains. Visit the herd. Also some right choice Yorkshires, both sexes. A. J. Howden, Myrtle, C.P.R.; Brooklin, G.T.R.; Columbus, R.M.D.

Oakland—67 Shorthorns (milk strains). Present offering is 10 choice bulls from 8 to 16 months old; also many fine heifers and young cows, nearly all sired by one of Ontario's best bulls (still at head of herd). Good cattle and no big prices. Write your wants to
JNO. ELDER & SONS, Hensall, Ont.

SHORTHORNS OF SHOW-RING QUALITY

We have this year the best lot of young bulls we ever bred from the famous sire, Mildreds Royal, Sr. Calves, Matchless and Emmelines, they are all of show-ring calibre.
GEO GIER & SON, R.M.D. WALDEMAR, ONT., P.O. AND STATION

H. SMITH HAY P. O., ONT.

21 SHORTHORN BULLS and as many heifers for sale. Write your wants You know the Harry Smith Standard.

SHORTHORNS and SHROPSHIRE

T. L. MERCER Markdale, Ontario
With 125 head to select from, we can supply young cows in calf, heifers from calves up and young bulls from 9 to 18 mos. of age, richly bred and well fleshed.
In Shropshires we have a large number of ram and ewe lambs by a Toronto 1st prize ram, a high-class lot.

GLENGOW SHORTHORNS AND COTSWOLDS

Pure Scotch in breeding we have an exceptionally choice lot of bulls for this season's trade, ranging in age from 8 to 15 months; big mellow fellows and bred in the purple.
Wm. Smith & Son, Columbus, Ont. Myrtle C.P.R., Brooklin, G.T.R., Oshawa, C.N.R.

SHORTHORNS YORKSHIRES SHROPSHIRE

We have a choice selection in young shorthorn bulls. Young Yorkshires of both sexes, shearing ewes, ram and ewe lambs. We aim to please by shipping quality. Write us your wants.
RICHARDSON BROS. Columbus, Ont

SHORTHORNS AND SHIRES

For Sale—a few choice young bulls, cows and heifers, of high-class quality, choice breeding and from splendid milking dams. Also two young stallions and a few mares and fillies. Prices reasonable.
JOHN GARDHOUSE & SONS, Weston, Ont. C.P.R., G.T.R. & Electric Railway L-D Phone.

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

DON JERSEYS

Special Offering—A few choice yearling bulls fit for service, also heifer calves six months old, sired by Eminent Royal Fern. Write for what you want.
D. Duncan & Son, Todmorden, R. R. No. 1, Duncan Sta., C.N.O.

THE ASSURANCE WATER

Pratts Animal Food Co. Canada, Limited, Toronto 35

Cotton LINSÉE MEAL H. Fraleigh,

HOLDS One yearling bull by whose dam is a g. dan under a year old, and by a son of Pontiac R. M.

Pedigreed for sale, 15 HEROLD'S FARMS

Insist on "GOTTEN" 41 to 48 IT MAKES Write for feeding Crampsey & Ke

Lakeside A few young bulls for formance dams, imp sired by Auchen 35758, grand ch and Sherbrooke GEO. H. MONT Dominion Express F. D. McArthur, M

STOCKWOL Sired by my royalty Whitehall King of H calf heifers and young D. M. Watt, St. I

High-Class richly-bred young bull over cow, imported or write me. Females all D. A. MacFARLANE

Alderley Ed J. R. KENNEDY, Please mention "T

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ACKSON, Secretary
Carp, Ont.

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at Toronto and London, sired by
-20 heifers and cows of choice
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ULLS

at our farms. There are some
er, all of which are forward in
of stock to visit us at any time.

J. A. & H. M. PETTIT,
Freeman, Ont.

DESDALES

ering females of all ages. Have
fills all from imported stock.
STRATHROY, ONTARIO

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raise better steers is right now,
ral cows and heifers. Write us
P.R. (11 miles east of Guelph.

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as in America. Can suit you
sex, at prices you can afford

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ding bulls, Newton Ringleader
p.) 73783, and Nonparel

e and telegraph via Ayr.

ING, HIGH IN QUALITY
and Scotch-topped Shorthorns
in number nor in quality than
most fashionable blood of the
ist the herd. Also some right
G.T.R.; Columbus, R.M.D

ing is 10 choice bulls from 8
fine heifers and young cows.
Good cattle and no big prices.

NS, Hensall, Ont.

ITY

We have this year
the best lot of young
bulls we ever bred
melines, they are all of show-

ONT., P.O. AND STATION

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T. L. MERCER
Markdale, Ontario
heifers from calves up and

a Toronto 1st prize ram, a

COTSWOLDS

lot of bulls for this season's
cows and bred in the purple.

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ROPSHIRES

of both sexes, shearing ewes,
our wants.

Columbus, Ont

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fillies. Prices reasonable.
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never more abundant. Our
did better. We have some
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show-ring.

AMPTON, ONTARIO

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n Sta., C.N.O.

The House And the Owner

WE are told of a house
which was continuously
insured against fire for
thirty years. Yet fire never
touched it. During the thirty
years, however, no less than
seven people died in that same
dwelling. This case shows the
difference between life insur-
ance and all other forms.

Fire may come, but death
must come. If fire insurance is
a necessity, and we think it is,
then life insurance is very much
more necessary. If a possible
danger should be guarded
against, how much more an
inevitable one. Your family can
be protected against the inevit-
able by a policy in

**THE MUTUAL LIFE
ASSURANCE COMPANY
OF CANADA
WATERLOO, ONTARIO**



**HIGH
MILK RECORDS**
are made only by healthy
cows. Keep yours in top-
notch condition with
Pratts Animal Regulator
25c. up to \$3.50.
Keeps appetite keen and diges-
tion good.
Sold on Money Back Guarantee.
Pratt Food Co.
Canada, Limited,
Toronto 35

Cotton Seed Meal

LINSEED AND FLAX
MEAL AND SEED
H. Fraleigh, Box 1, Forest, Ont.

HOLSTEINS

One yearling bull by King Segis Pontiac Duplicate,
whose dam is a g. daughter of King Segis; 18 bulls
under a year old, one from a 29-lb. cow and sired
by a son of Pontiac Korndyke. Females any age.

R. M. HOLTBY
R. R. 4, PORT PERRY, ONT.

Pedigreed Holstein Bull

for sale, 15 months old. Apply
HEROLD'S FARMS Beamsville, Ont.

Insist on "GOOD LUCK" Brand COTTON SEED MEAL

41 to 48 per cent. Protein
IT MAKES RICH MILK
Write for feeding directions and prices to
Crampsey & Kelly Dovercourt Toronto
Road

Lakeside Ayrshires

A few young bulls for sale from Record of Per-
formance dams, imported and Canadian-bred,
sired by Auchinbrain Sea Foam (Imp.)
3578, grand champion at both Quebec
and Sherbrooke. Write for Catalogue.
GEO. H. MONTGOMERY, Proprietor
Dominion Express Bldg. Montreal, Que.
D. McArthur, Mgr., Philipsburg, Que.

STOCKWOOD AYRSHIRES
Sired by my royally bred and prizewinning bull,
Whitehall King of Hearts, Imp., for sale are, in
calf heifers and young bulls, out of Imp. and big
producing cows.
D. M. Watt, St. Louis St. P. O., Quebec

High-Class Ayrshires If you are
wanting a
richly-bred young bull out of a 50-lb.-a-day and
over cow, imported or Canadian-bred dam or sire,
write me. Females all ages. Prices are easy.
D. A. MacFARLANE, KELSO, QUEBEC

Alderley Edge Ayrshire cattle and
Yorkshire swine.
Both sexes.
J. R. KENNEDY, Knowlton, Que.

Please mention "The Farmer's Advocate."

Gossip.

GLENGOW SHORTHORNS AND COTSWOLDS.

Still to the front as one of the lead-
ing herds of Scotch Shorthorns of On-
tario, the Glengow herd of Wm. Smith
& Son, of Columbus, Ont., has main-
tained its reputation for excellence of
merit very nearly fifty years, and in all
that time was never stronger than now,
either in numbers or quality. Many
noted bulls, both imported and Canadian
bred, have seen service at the head of
the herd, but of them all, none possessed
a stronger power of stamping his get
with a uniformity of heavy, smooth
flesh, than Broadhooks Prince, now in
service at the herd's head. The Strath-
allans, Wedding Gifts, Kiblean Beautys
and Crimson Flowers, that make up the
tribal complexion of the herd, are breed-
ing particularly well with him, and the
young bulls on hand, whose ages range
from eight to fifteen months, leave little
to be desired in their modern type and
fleshing, and parties wanting a young
herd-header would do well to get in
touch with Mr. Smith and visit the
herd. The large flock of Cotswolds, too, is
kept up to a standard of high merit, due
to the careful selection of stock rams.
The best was never too good for the
Glengow flock, and this year's crop of
ram and ewe lambs, all of which are for
sale, will please the most exacting.

HAMILTON FARM HOLSTEINS.

Individuals of the Hamilton Farm herd
of Holsteins, owned by E. B. Tracy,
Cobourg, Ont., have this year done more
than their share in adding lustre to the
Holstein history of Canada. They are
big, strong-constitutioned cows, and the
past summer's work in official testing
gives a little information of what can be
expected with another year's care and
feeding under the skilful management of
Mr. Tracy. They have remarkable
possibilities for production, and it is certain
that this year's work is no measure of
their limit. Following are a few records
made during 1915: Lulu Keyes, in
seven days, made 36.05 lbs. butter and
785 lbs. milk, her best day's yield being
122.8 lbs. Lulu Darkness, a full sister
to the previously-mentioned cow, with
one quarter blind, gave 90 lbs. a day,
606 lbs. in seven days, and 22.11 lbs.
butter. Sadie Cornucopia Mignore, in
seven days, made 31.75 lbs. butter, and
in thirty days 127.58 lbs. Princess Dixie
of Annandale 2nd made 26.09 lbs. butter
and 574.3 lbs. milk. Lady Akkrum
Hengerveld made 27.24 lbs. butter and
630 lbs. milk. Edith Prescott Korndyke
made 32.66 lbs. Few herds in this
country have, in one year, three cows
making over 30 lbs. each. At the head
of this great herd is one of the strong-
est-bred bulls on 30-lb. lines alive. He
is a son of the previously-mentioned cow,
Sadie Cornucopia Mignore, which made
31.75 lbs. She is a daughter of Sir
Sadie Cornucopia, with 25 A. R. O.
daughters, with two of them over 31
lbs. each, and he in turn a son of Sadie
Vale Cornucopia, 34.64 lbs. This herd-
header is Sir Sadie Korndyke Segis, a
son of King Segis De Kol Korndyke,
with 42 A. R. O. daughters, one of them
30.42 lbs., and another 40.36 lbs. as a
four-year-old, which is the world's record
for the age. His sire was King Segis,
with seven daughters over 31 lbs., and
his dam Pontiac Clothilde De Kol 2nd,
37.21 lbs., she by Pontiac Korndyke, with
11 daughters over 30 lbs. Sired by this
bull, and for sale, are several young
bulls, one of them out of Lulu Keyes,
the rest out of big-record cows. There
is also a three-year-old bull for sale out
of Edith Prescott Korndyke, 32.66 lbs.,
and sired by Count Segis Walker
Pietertje, a son of a 22.20-lb. two-year-
old heifer, and sired by Walker Korndyke
Segis, a son of a 28.74-lb. cow. This
is a kind of producing blood seldom
offered for sale in this country, and par-
ties wanting a young herd-header bred on
30-lb. lines would do well to visit the
herd.

A "civilized nation" means merely a
nation where there is an occasional
civilized person.

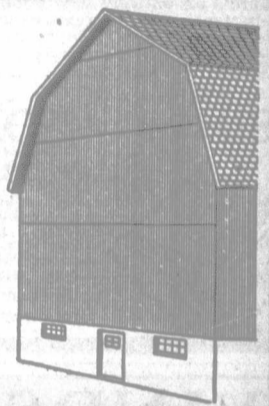
"Metallic" Corrugated Iron Barns are Lightning, Fire, and Weather-Proof

Lumber and labor are too expensive to be used
in farm buildings; besides, wood buildings are
easily destroyed by fire and lightning.
"Metallic" Corrugated Iron makes buildings
that last a life-time; that are warm and dry;
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RIVERSIDE HOLSTEINS

Herd headed by King Johanna Pontiac Korndyke, a grandson of Pontiac
Korndyke, and a brother of Pontiac Lady Korndyke, 38.02 lbs. butter
in 7 days, 156.92 lbs. in 30 days—world's record when made.

J. W. Richardson, R. R. No. 2, Caledonia, Ontario

HOLSTEIN CATTLE

Canary Mercedes Pietje Hartog 7th heads our herd. His dam gave 116 lbs. milk in one day
and 6.197 in sixty days and made 34.60 lbs. butter in 7 days. There are more cows
in our herd giving over one hundred lbs. of milk a day than any
other in Ontario. We have both bulls and heifers
for sale.

D. C. FLATT & SON, R. R. No. 2, HAMILTON, ONTARIO
Long-distance Telephone

Ourvilla Holstein Herd If you are starting a herd, or wanting to improve one,
look at these young sires for sale, from Homestead Susie
Colantha, at three years 26.50; Ourvilla Susie Abbecker, at three years 26.02; Ourvilla Calamity
Ormsby, 22.14 at three years; Homestead Hellon Abbecker, at three years 23.51, and a few others.
Also come and make a selection in choice
females from our herd of 100 head. LAIDLAW BROS., Aylmer, Ont.

Evergreen Stock Farm—REGISTERED HOLSTEINS
Present offering: Several bull and heifer calves, also a few yearling heifers bred
and ready to breed. Write for prices
and descriptions. Bell 'phone. A. E. Hulet, Norwich Ont.

Lakeview Stock Farm Bronte, Ont. BREEDERS OF HIGH
TESTING HOLSTEIN-FRIESIAN CAT-
TLE OFFER FOR SALE A FOUNDATION
HERD consisting of 1 male and 3 females all bred in the purple and backed by officially tested dams.
Terms to suit purchasers. T. A. DAWSON, Manager.

Clover-Bar, Holsteins. My special offering just now are some choice young Bulls
out of official record dams and sired by Count Mercedes
Ormsby, whose dam has 3-30 lb. sister, and a 24 lb. 4-year old and a 21.06 lb. 3-year old daughters,
and his sire was the great Sir Admiral Ormsby. Also a few females.

PETER SMITH, R. R. No. 3, Stratford, Ont. --- Stratford or Sebringville, Stations.

HOLSTEIN CATTLE Pure-bred cows, heifers and heifer calves. 66 HEAD MUST
BE SOLD, having disposed of my two stock farms. Come
and make your selection. Price and terms to suit. Cattle
will be in good working shape, not forced or fitted for sale purposes. SOUTHBEND P.O., ONT.
HAMILTON FARMS. Telephone and Phone Niagara Falls. Farm 10 minutes trolley from Niagara Falls.

QUEEN CITY HOLSTEINS
Present Offering is 10 young bulls, from 6 to 14 months of age, the records of whose dams,
sires dam and her full sister, range from 28 to 32 lbs. They are sons of King Lyons
Hengerveld Segis.
R. F. HICKS, Newtonbrook, Ont. On T. & Y. Railroad Line.

Cloverlea Dairy Farm offers for sale a choice 23 lb. bull ready for immediate service. Write
from our herd Sir Pontiac Norine Korndyke, from R. O. M. dams which will be priced
right. L. D. Phone.
GRIESBACH BROS., Collingwood, Ontario.

For Sale---Sons of King Segis Walker

From high-testing dams of Pontiac Korndyke, Photo and pedigree sent on application.
A. A. FAREWELL OSHAWA, ONTARIO

HOSPITAL FOR INSANE, Hamilton, Ont. For Sale—Nine Holstein
bulls, varying in age from
3 to 19 months, from Record of Performance or Record of Merit dams and the grand bulls Sir
Korndyke Wayne Dekol, grandson of Pontiac Korndyke, or Lakeview Duchland Le Strange, a
grandson of Count Hengerveld Fayne Dekol. Prices right. APPLY TO SUPERINTENDENT.

DAIRYMEN'S CONVENTION

Dairymen's Association of Western Ontario
49th ANNUAL CONVENTION AND WINTER DAIRY EXHIBITION
St. Mary's, Wednesday and Thursday, January 12th and 13th, 1916

ROBT. MYRICK, PRESIDENT Special Railway Rates FRANK HERN'S, SEC.-TREAS.
Springford, Ont. London, Ont.

CITY VIEW AYRSHIRES Every cow qualified in Record of Performance
with an average of 4.5 per cent. fat. Do you
ages up to 18 months. Write: want a young bull from one of them? AIF
JAMES BEGG & SON R. R. 1, St. Thomas, Ont.

Get **Only 20c** The Latest **Modern Silage Methods**

Tells you all there is to know about present-day silage feeding—how to build silos, gives reliable and unbiased facts (we do not sell silos) on every silo built—home made—stave, hoop and octagonal silos—pl. brick, tile, cement, concrete silos—all modifications. Also covers every crop used for silage—41 of them. Here's an entirely new book—264 pages—better than former copies used as text books in colleges. Copyrighted November, 1914. Ten page index. We send it for 20c coin or stamps. Send for this new copy today.

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Write for catalog and four-color poster folder which we send free. Enclose 20c to cover duty and postage and we send "Modern Silage Methods" with them.

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WINDSOR SELF-FILLING FOUNTAIN PEN FOR \$1 (PREPAID)

Solid 14 K. gold pen, large hard rubber holder, and money back if you are not satisfied.

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How to erect fireproof, weatherproof, lightningproof farm buildings is explained in our FREE Barn Books.

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BERKSHIRES AND SHORTHORNS

Boars and sows—10 weeks to 8 months—Sire and dam 1st prize winners at Toronto. First-class Shorthorn bull by Sea Foam, (Dark Roan, 12 months old).

Industrial Farm, Muncy, Ont.

For Sale—Chester Whites

Crowded for room. Pigs of 3 months (thirty fellows) at \$12 each. Sows carefully bred at cut rates.

Elmdale Stock Farm JOHN POLLARD Norwich, Ont., R. 4.

Tamworths Boars fit for service, young sows ready to breed, pigs of all ages for sale. Before buying, write for prices.

JOHN W TODD R. R. No. 1, Corinth, Ont.

For Sale—Ohio Improved Chester White Swine. The oldest established registered herd in Canada. Pairs furnished not akin 6 to 8 weeks old. Write for prices.

Mrs. E. D. George & Sons, R.R. No. 2, Mossley, Ont.

Morrison Tamworths and Shorthorns, bred from the prize-winning herds of England. Choice Tamworths, both sexes, all ages, 150 head to choose from. Choice Shorthorns, 3 extra fine red roan bull calves, 8 mos. old, dandies, also cows and heifers of the deep milking strain. Charles Currie, Morrison

Yorkshire Sows for Sale. Three choice Yorkshire sows, bred eight months old, weight about 275 lbs. L.D. Phone.

Geo. D. Fletcher, R.R. No. 1, Erin, Ont.

Prospect Hill Berkshires Special offering for Christmas trade a number of sows from first class stock and bred to our stock boar Ringleader to farrow in March; also a fine lot of pigs, both sexes farrowed in June. Terms and prices right.

John Weir & Son, R.R. No. 1, Paris, Ont.

Pine Grove Berkshires—Sows bred and ready to breed. Boars fit for service. Young things, both sexes, from my prize-winning herd.

W. W. Brownridge, R. R. 3, Georgetown, Ont.

Dyke's Book—FREE INTERESTING, INSTRUCTIVE—tells you how to learn AUTO TRADE, how to become a chauffeur and repairman—SEND FOR IT—To-day—New!

A. L. DYKE, 153 Roe Bldg., St. Louis, Mo.

Questions and Answers. Miscellaneous.

Lymphangitis.

1. I have a young, in-foal mare, three years past, which I purchased this fall. She is a registered draft mare. I noticed a few days after I bought her that her right hind leg was a little large at the fetlock joint, and above this running up to the body. I thought at first that it might be a sprain, but the trouble exists still. Lately I have been thinking it is a mild attack of lymphangitis. What should I do with this mare? She gets out chop, probably a gallon twice a day, and is out in the barnyard with two large geldings. They eat from a fall-wheat straw-stack, and do not take much exercise.

2. Is bran a good feed, or would ground flax be good? L. S. W.

Ans.—1 and 2. This is probably an attack of lymphangitis, common with in-foal mares that are not getting much exercise, or with horses that are fed heavily and allowed to rest for a few days. We would not advise administering drugs to an in-foal mare except under the supervision of a veterinarian. Local treatment would consist in bathing frequently with warm water, applying some liniment, and excluding all drafts. Make a portion of the grain ration, which the animal is already getting, bran, and feed a few roots each day. Force the mare to take more exercise, even if she has to be put on the road. After the animal has foaled and she gets some grass, the trouble will probably disappear. The mare should receive bran by all means. A little ground flax would be all right, especially for the geldings.

Growing and Marketing Ginseng.

Please state in "The Farmer's Advocate" how to grow, harvest and market ginseng, and also where to get the seed. W. M.

Ans.—For soil, choose a good, friable loam, light rather than heavy, and clear of stones, clods, chunks of wood or roots. A northern slope is preferable. For the bed, select a shady place, or prepare artificial shade from lattice-work and annual vines. There is nothing better than a place in the wood, where the undergrowth is not thick and the trees high, but shady. Spade the ground over to the depth of one foot, and remove all roots and clods. Give it a heavy application of leaf mold, and work it well in. Don't make the nursery beds more than four feet wide. Allow 9 to 12 square feet for each ounce of seed to be sown. The permanent bed will not differ from this only in width, and it may be twice as large in this direction. Plant seed in nursery bed in rows two or three inches apart, and one to two inches apart in the row, about one inch deep. Cover the whole bed with leaf mold or muck about an inch deep, and throw brush on top of this to catch the spring, but allow leaves to remain, if not too thick. It is recommended to sow the seed in the autumn. Keep weeds pulled out during first summer, but don't stir the soil or mulch. In the fall, give a dressing of well-rotted horse manure, and return brush covering. During second season, give the bed the same treatment, and transplant the seedlings into permanent bed that autumn. Plant the seedlings about five inches apart each way in the permanent bed, and give this the same treatment as the nursery bed received relative to covering, etc. From three to five years from the planting of the seedlings will mature the marketable roots. Eighteen months' elapse before seeds germinate, so it is often stored in moist soil in the cellar. When this is done, the soil is first sifted through a sieve smaller than the seed, which condition expedites matters when the seed is to be separated later on. Provide abundant shade by trees or vines, and protect from stock. Ginseng has had no enemies of any importance, but it is now sometimes attacked by blight, which spraying will prevent. Young rootlets from the wild state will start a bed, and should be transplanted in the fall, but the spring will answer. When large enough the roots are dug, cleaned and thoroughly dried. It will be five or six years before you have any marketing to do. The growing is the critical operation.

RAW FURS RED, WHITE, BLUE, CROSS, SILVER, BLACK FOXES, BEAVER, LYNX, Etc. Wanted from all sections of Canada.

Every raw-fur shipper who is looking for a better outlet for his raw furs should write at once for our price list. We are in a position to pay top market prices, and will do so at all times. Let us hear from you.

Send for our Price List—now ready. We buy Ginseng.

STRUCK & BOSSAK, Inc., Exporters of and Dealers in RAW FURS 142 West 28th Street, - NEW YORK

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Summer Hill Stock Farm

Largest and oldest importers and breeders of

OXFORDS

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

PETER ARKELL & SONS, Proprietors, Teeswater, Ont.

Customers, beware of imitations of this advertisement

SUMMER HILL OXFORDS

Flock established many years ago on Summer Hill Stock Farm by the late Peter Arkell, now owned by his son, Peter Arkell. Rams and ewes in any quantity for sale, all recorded. Positively no grades registered as pure-breds; also no grades handled except by order.

Peter Arkell & Co., P.O. Box 454, Teeswater, Ont. C.P.R. Sta.

Farnham Farm Oxford and Hampshire Downs

Flock Established in 1881 from the best flocks in England. We are offering a splendid lot of yearling rams and ram lambs for stock headers or show purposes. We ourselves have retired from the show-ring so hold nothing back. We are also offering 80 yearling Oxford ewes and ewe lambs; a few superior Hampshire yearlings and ram lambs. All registered. Prices reasonable.

HENRY ARKELL & SON, Route 2 GUELPH, ONT. Guelph, G.T.R.; Arkell, C.P.R. Telegraph Guelph. Long-distance phone in house.

Shropshires and Cotswolds for Sale—Yearling rams and yearling ewes, a few imported 3 shear ewes, an extra good lot of ram

Claremont, C. P. R., 3 miles Pickering, G. T. R., 7 miles

JOHN MILLER, Claremont, Ont. Greenburn, C.N.R., 4 miles

OAK - LODGE SHROPSHIRE We have on hand for sale a large number of Shearling Rams and Shearling Ewes, Ram and Ewe lambs, got by noted sires that have produced winners at Toronto for the last 3 years. Highest quality.

J. E. Brethour & Nephew, Burford, Ontario

Yorkshire Pigs

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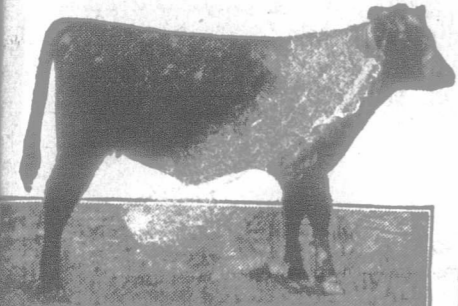
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Trade Topic.

WINTER TOURS TO CALIFORNIA, FLORIDA, ETC.

At this season of the year many are planning their winter tours. Considerable numbers annually visit the ever-popular California resorts, while many choose the flowers and sunshine of Florida, together with the very even climate.

Numerous people in comfortable circumstances, well able to afford a winter tour, have the mistaken idea that a trip of this nature is most expensive. This is not so. Thanks to modern railway facilities, an extensive trip, both interesting and educational, may be made with speed and comfort at a comparatively small cost. Why not investigate?

The Canadian Pacific Railway offers particularly good service to Detroit, where direct connection is made for Florida, via Cincinnati, Ohio, and Atlanta, Ga. Jacksonville, Florida, is reached second morning after leaving Detroit. Excellent connections for Florida can also be made via Buffalo.

The Canadian Pacific-Michigan Central route (via Michigan Central twin tubes between Windsor and Detroit), will be found the ideal line to Chicago, where direct connection is made for the Southern States. New Orleans is reached second morning after leaving Toronto.

Direct connection is also made at Chicago for points in California, Texas, Arizona, etc.

The Dining, Parlor and Sleeping-car service between Toronto, Detroit and Chicago is up-to-date in every particular. Connecting lines also operate through sleeping and dining cars.

Those contemplating a trip of any nature will receive full information from any C. P. R. agent; or write M. G. Murphy, District Passenger Agent, Toronto.

Gossip.

ALLOWAY LODGE STOCK.

Robt. McEwen, breeder of Southdowns, Aberdeen-Angus, and Collies, writes:

"The past season has been a record one for the sale of Southdown sheep, both in individual and carload lots. During the past three years the flock has been exhibited in the United States, from Illinois to Tennessee, and in Canada at all the leading exhibitions, and has in all cases carried off the premier awards and flock prizes. In Canada this year, in the breeding classes at Toronto, London and Ottawa, the flock was awarded every first but two. At the Guelph Fat Stock Show the flock carried off the Drummond Cup for the third successive time, in competition against all other breeds. The rapid increase in popularity of this breed in the last few years is due to the fact that rams used for crossing produce a lamb which fills the exact demand of the market. The breeding ewes of the flock are made up principally of personally-selected imported animals, and are now bred to the Royal winner, Cheveley Quadrille. The flock is the strongest in numbers and quality that it has ever been, and preparations are now being made for an exceptionally bright trade in both fitted and breeding stock.

"The herd of Angus cattle came into the barns from the grass in excellent condition, and calves from the American herd bull, Kennaird Lad, are coming along and look most promising. There are now between twenty and twenty-five matrons of such families as Ericas, Prides, Queen Mothers and Blackbirds, from which those in want of Angus cattle should have no difficulty in making a selection to please them. The success of the breed at the shows in recent years has added much to its popularity, and its early-maturing qualities have created a demand amongst the producers of baby-beef, which is admittedly the most profitable end in beef production to-day.

"In swine, there are a few select young pigs of utility type, sired by Oak Lodge Masterpiece, ready for market. These are good, thrifty pigs, and will do themselves justice wherever they go.

"The demand in Collies exceeds the supply, and orders are now being booked ahead."

Gossip.

COMING EVENTS.

Eastern Ontario Dairymen's Association Convention at Renfrew, January 5 and 6.

Experimental Union at Guelph, January 11 and 12, 1916.

Western Ontario Dairymen's Association Convention at St. Mary's, January 12 and 13.

Ottawa Winter Fair, January 18-21, 1916.

Convention of the Ontario Fruit Growers' Association at Toronto, January 19, 20 and 21, 1916.

Live Stock Association meetings at Toronto, Jan. 31 to Feb. 4.

SALE DATES CLAIMED.

Jan. 19, 1916.—Jas. Binnie, Erin, Ont.; Aberdeen-Angus cattle and Oxford Down sheep.

Jan. 25, 1916.—Victoria Pure-bred Stock Association, Lindsay, Ont.; A. A. Knight, Secretary.

Jan. 26, 1916.—Brant District Holstein Consignment Sale of Holsteins, Brantford, Ont.; N. P. Sager, St. George, Ont., Secretary.

Jan. 27, 1916.—Bertram Hoskin, Grafton, Ont.; sale of Holsteins at Coburg.

Jan. 27, 1916.—Wm. A. Rife, Hespeler, Ont.; Holsteins.

Feb. 2, 1916.—Canadian Sale of Scotch Shorthorns, Union Stock Yards, Toronto; Robt. Miller, Stouffville, Ont., Manager.

Feb. 8.—Southern Ontario Consignment Sale Company's Annual Sale of Holsteins at Tillsonburg; R. J. Kelly, Culloden, Ont., Secretary.

Feb. 10, 1916.—C. E. Trebilcock, London, Ont.; Holsteins.

Feb. 16, 1916.—Norfolk Holstein Breeders' Sale, at Simcoe; W. A. Mason, Simcoe, Secretary.

The Spice of Life.

Tommy Atkins, meeting a full-bearded Irish tar in the street, said:

"Pat, when are you going to place your whiskers on the reserve list?"
"When you place your tongue on the civil list," was the Irish sailor's reply.

First Recruit—What do you think of the Major, Bill?
Second Recruit—He's a changeable kind o' bloke. Last night I says to 'im: "Oo goes there?" An' he says: "Friend!" An' to-day 'e 'ardly knows me.

A Scotch minister in need of funds thus conveyed his intention to his congregation:
"Weel, friends, the kirk is urgently in need of siller, and as we have failed to get money honestly, we will have to see what a bazaar can do for us."

One of the faculty of a New England college tells of a freshman who was asked by one of the professors whether he had proved a certain proposition in Euclid.

"Well, sir," said the freshman "proved" is a rather strong word—but I will say that I have rendered it highly probable."

During the early days of the German campaign in Poland the Russians were rounding up all "slackers" in Warsaw. One very old shopkeeper—he was nearly eighty—hid himself in the cellar, but his wife found him there and told him to come out.

"They're not looking for you," she said. "You're too old for the army. Come up-stairs at once!"
But the veteran drew himself up proudly, "My dear," he replied, "you don't understand. They are looking for such as me. They need Generals."

Some men at the club were telling dog stories after a day's shooting. After some time, when the tales got very "tall," one little man, who had been quite silent, said:
"I have a dog that makes all yours seem foolish. I generally feed him myself after dinner, but the other day a friend dropped in, and the poor animal slipped my mind. After the meal we went into the garden. The dog scratched up a flower and laid it at my feet, with a most yearning look in his eyes—it was a forget-me-not." Nobody told any more dog stories that evening.

CREAM

Where are you shipping now? And what are you getting for your cream?

We want more individual shippers and more men to gather cream for us. Write for our proposition.

Silverwoods Limited
LONDON, ONTARIO

Sarnia Creamery

Pays express, furnishes cans and remits weekly
Pay Highest Price.
Write for particulars.

Sarnia Creamery Co., Ltd.
Sarnia, Ont.

Brant Creamery

Brantford, Ontario
Guarantees to you a high-priced market for cream every day of the year.
Write for our book.

Reference: Bank of Nova Scotia

CREAM

We pay express charges and furnish cans. Remit promptly. Take all you can make. Write us.

THE BERLIN CREAMERY CO.
Berlin, Canada

CREAM Mr. Shipper, Attention!

Reasons why you should send your cream to us:
1. We aim to pay the highest prices.
2. We give you a square deal.
3. We have the largest market in Ontario.
4. We are prompt in making remittances.
The market indicates a gradual advance. Act now. Write us for further particulars.
THE TORONTO CREAMERY CO., LIMITED
9 Church Street, Toronto, Ont.

Look Out For

The Imperial Life Assurance Company's big advertisement in next week's issue entitled

"She Married for a Home"

It has an interesting message for YOU.

Winter Term Opens Jan. 3

ELLIOTT
Business College

YONGE AND CHARLES STS., TORONTO
Demand for our graduates during last four months more than four times our supply. Write for Catalogue No. 25. W. J. ELLIOTT, Principal.

Western School

Y.M.C.A. BLDG., LONDON, ONT.
BUSINESS AND SHORTHAND

Students assisted to positions. College opens Sept. 1st. Catalogue free. Enter any time.
J. W. Westervelt J. W. Westervelt, Jr., C. A.
Principal Vice-Principal 18

DO YOU NEED

FURNITURE?

Write for our large Photo-illustrated Catalogue No. 7—it's free to you.
THE ADAMS FURNITURE CO., Limited
Toronto, Ontario

Send for the 1915-16 Edition of our

FUR STYLE BOOK

34 pages, illustrated, of beautiful fur sets and fur garments for men, women and children. IT IS FREE. Address:

JOHN HALLAM, LIMITED
Room 162, Hallam Building TORONTO

Ear Tags FOR STOCK

Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog and samples free on request.
P. S. Burch & Co., 172 W. Huron St. Chicago

SARNIA FENCE PRICES

Advance Jan. 15, 1916

ALL FULL No. 9 GAUGE WIRE

MADE IN CANADA

Another advance in the price of wire has put the cost of raw material so high we are again compelled to raise the price of fence. Buy your next year's requirements at the prices listed below and save a large percentage of your fence money. In accordance with our usual custom, we are giving you an opportunity to buy before the prices advance. You no doubt realize that we are the only company who follow this practice

SARNIA FENCE FIRST WHY?

When you invest a dollar in Sarnia Fence you not only make a good investment, but you show your appreciation of the service the Sarnia Fence Company did for the farmers of Canada when they broke up the old-time Fence Combine and reduced the price of wire fence to the farmers to nearly half. Figure how much we have saved you in dollars and cents in the last five years, and if you think we deserve your business let us have your next order.

PLEASE NOTE

The prices listed in the first column of this ad. are good up to Jan. 15. The second column will be effective after Jan. 15, 1916. This advance has been made necessary by the repeated advance in the price of steel. These prices are Freight Prepaid to any station in Old Ontario. Our guarantee applies on all fence sold. Read it.

GUARANTEE

We guarantee our fence to be made from the best galvanized hard steel wire, both stay, line wire and knot, and to be the most perfectly woven fence on the market, and of full government gauge No. 9 wire.

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

	PRICE Delivered at your station before Jan. 15	PRICE Delivered at your station after Jan. 15
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.....	21c.	23c.
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.....	25c.	27c.
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.....	28c.	30c.
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.....	29c.	32c.
8-40 GENERAL STOCK FENCE. Has 8 line wires, 40 in. high, 12 stays to the rod, all No. 9. Hard steel wire, spacing 5, 5, 6, 6, 6, 6. Weight per rod 10¼ lbs. Price per rod.....	34c.	37c.
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, 9, 9. Weight per rod 11 lbs. Price per rod.....	36c.	39c.
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, 5, 6, 8, 8, 9. Weight per rod 11 lbs. Price per rod.....	36c.	39c.
9-48-0S 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, 6, 6. Weight per rod 11 lbs.	36c.	39c.
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.....	39c.	42c.
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, 3½, 3½, 4½, 5½, 6, 8, 8, 8. Weight per rod 13½ lbs. price per rod.....	43c.	47c.
POULTRY FENCES		
18-50-P STOCK AND POULTRY FENCE. Has 18 line wires, 50 in. high, 24 stays to the rod, top and bottom wire No. 9, filling No. 13 hard steel wire, spacing 1½, 1½, 1½, 1½, 1½, 1½, 2½, 2½, 3, 3½, 4, 4½, 4½, 5. Weight 12 lbs.....	44c.	48c.
FENCE ACCESSORIES		
WALK GATE 3½x48	\$2.60	\$2.60
FARM GATE, 12x48,	4.00	4.00
FARM GATE, 13x48,	4.25	4.25
FARM GATE, 14x48,	4.50	4.50
FARM GATE, 16x48,	5.00	5.00
STAPLE GALVANIZED, 1½ in. per box of 25 lbs.	1.00	1.00
BRACE WIRE, No. 9 Soft, per coil 25 lbs.90	.90
BARB WIRE—		
4-point cattle barb, 6-in. space.....	3.25	3.25
2-point cattle barb, 5-in. space.....	3.00	3.00
STRETCHER. All iron top and bottom, draw very heavy toed chain, extra single wire stretcher and splicer, the best stretcher made at any price....	8.00	8.00

PRICE

Sarnia Fence is sold direct from Factory to Farmer, cutting out all agents' commissions, dealers' profits and bad debts, and giving you our fence at first cost.

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.

QUALITY

Sarnia Fence is the best known fence in the Dominion of Canada to-day, which is due largely to the fact that it 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.

THE SARNIA FENCE CO., Limited, SARNIA, ONT.

Fence Put Up in 20, 30, 40 Rod Rolls Only