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JULY 6, 1916

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THE **FARMER'S ADVOCATE**
 AND HOME **MAGAZINE**

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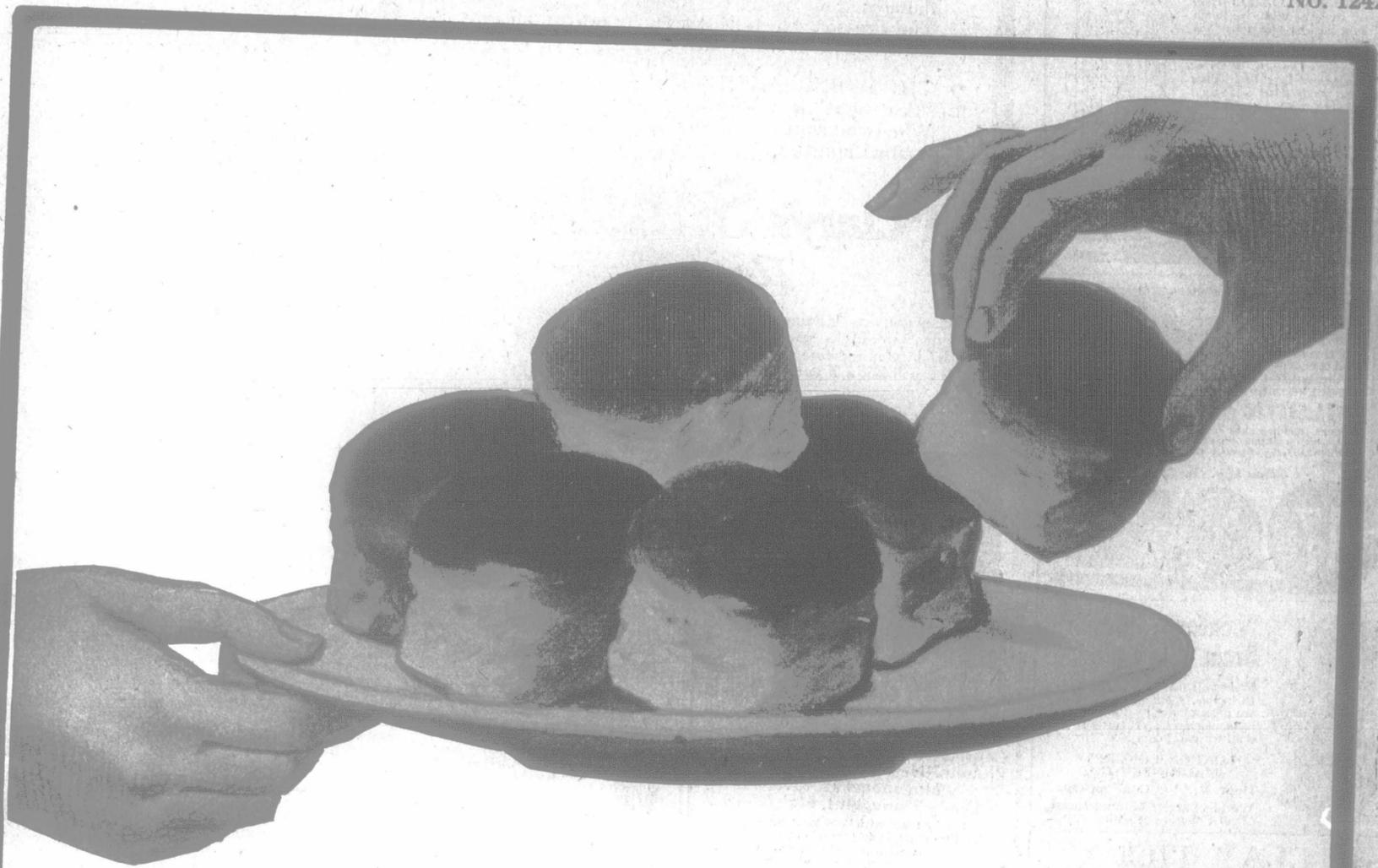
AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE

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 LONDON, ONTARIO, JULY 13, 1916

No. 1242



PURITY FLOUR

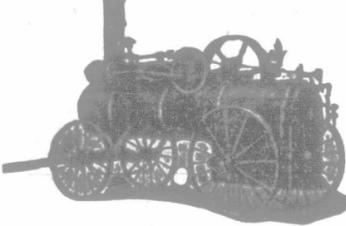
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A number of good rebuilt Portable and Traction Engines suitable for Silo filling and Threshing, also a few good separators for sale cheap.

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Sweet Fresh Ensilage down to the last forkful

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

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GILSON "Goes Like Sixty"

I thrive on hard work—just "eat it up"—and it costs but a trifle to keep me hustling at the hardest work. I will give you perfect service because I am one of the famous "GILSON" engines.

Engines—the line that exactly meets every farm need with a high quality engine at a low price. It will pay you to write for full particulars of Gilson "Goes Like Sixty" Engines.

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Makes all sizes of tile from 3 to 18 inches. Cement Drain Tiles are here to stay. Large profits in the business. If interested, send for catalogue No. 2.

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Smooth, Hard, Clean-Cut.
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Write for our proposition.

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

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Every Shovelful Counts



There's satisfaction in having a Sunshine Furnace. You know that the coal you put in the big, wide door will be turned into heat for the house.

What makes the Sunshine a Coal Saver? Two Things:

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When you are planning a heating system for your home, wouldn't you like to know what McClary's Sunshine will cost you, installed? You will know if you tell us what you want.

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Kindly send me without expense on my part:—

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2. Also terms for your engineers to tell me how to order a greater heat per bush.

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will make your wagon as good as two wagons.

You need a regular high-wheeled wagon. You also need a low-wheeled truck.

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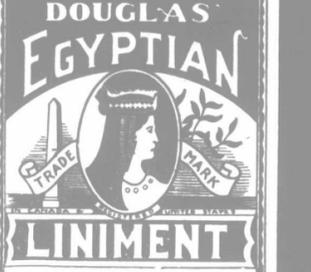
enable you to convert the one into the other, in a very few minutes.

A splendid, strong wheel is the "Page." Farmers tell us there's nothing on the market to compare with it.

Price list on application, accompanied by chart showing how to take measurements for ordering correct size to fit your wagon.

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Stops Bleeding at Once
Removes all Inflammation
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A Speedy Cure for Thrush

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GRAND TRUNK RAILWAY SYSTEM

Attractive Trips

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Muskoka Lakes Lake of Bays
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Round trip tourist tickets now on sale from certain stations in Ontario at very low rates, with liberal stop-overs.

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Leave Toronto 12.01 p.m. daily except Sunday, and 2.05 a.m. daily for Muskoka Wharf. Connections are made at Muskoka Wharf for Muskoka Lakes. Leave Toronto 10.15 a.m. daily except Sunday, and 2.05 a.m. daily for Huntsville, for points on Lake of Bays. Equipment the finest.

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10 DAY'S TRIAL. If owner is not entirely satisfied after riding any Hyslop Bicycle 10 days it can be returned and money will be promptly refunded.

TWO CENTS is all it will cost to write us a postal and we will mail free, postpaid, catalogue and colored art folder showing complete line of bicycles, tires and supplies and particulars of most marvelous offer ever made on a bicycle. You will be astonished at our low prices and remarkable terms. **MAKE MONEY** taking orders for Bicycles, Tires and Sundries. **DO NOT BUY** until you know what we can do for you. Write today. **HYSLOP BROTHERS, LIMITED**
DEPT. 2 TORONTO, ONT.



Seed Buckwheat & Millet

Silver-hulled Buckwheat.....\$1.00 per bush.
Common Millet.....5.00 per 100 lbs.
Japanese Millet.....7.00 " "

All prices f.o.b. Stouffville.
Allow 25 cents extra for cotton bags. Terms cash with order.

TODD & COOK, Seed Merchants
Stouffville Ontario

The Light Running GILSON Silo Filler

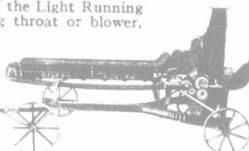
SIMPLY CAN'T BE CLOGGED

The simple, scientific, carefully worked out construction of the Light Running "Gilson Silo Filler" makes it absolutely impossible to clog throat or blower, no matter how fast the corn is thrown in. The Gilson is rightly called

The King of Ensilage Cutters

because of its remarkable elevating powers, absolute safety, durability, strength and simplicity—a status supreme. It has convenient and quick knife adjustment, self-lubricated cutting wheel, patent safety device—and is guaranteed to cut and elevate MOBILIZE with the SAME power than ANY other ensilage cutter IN THE WORLD. Write to-day for catalogue and proof. Manufacture and guaranteed by

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We think we have the longest experience. We try to give the best service. We need your cream and will make it "worth your while" to ship to us. A card brings particulars.

Toronto Creamery Co., Ltd.
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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
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CREAM WANTED

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

Ontario Creameries Limited
London, Ont.



GET ALL THE BUTTER FAT

To operate at full efficiency and deliver all the cream, your separator must be lubricated with an oil exactly suited to its construction. Many oils form "gum," thereby clogging the delicate mechanism of the separator, and thus causing irregular spinning of the bowl, reduction of speed and consequent loss of cream.

Standard Hand Separator Oil

Is made especially for cream separators by oil experts of years' experience who have studied the detail construction of the separator—this in order to produce an oil exactly adapted to the purpose. Your separator will do better work, last longer and need fewer repairs if lubricated with Standard Hand Separator Oil. No matter what you pay, you cannot buy a better oil for the purpose. Dealers everywhere.

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Have running water in your house and barn

Enjoy the comforts of a bathroom. Have hot and cold water—hard and soft—in the kitchen. Have water under pressure in the barn, and for fire protection. How? By installing an

Empire WATER SUPPLY System

Read what Mr. N. Sangster, of Ormstown, Quebec, vice-president of the Holstein-Friesian Association of Canada, says regarding the Empire System illustrated above:

Gentlemen,—The Hydro Pneumatic System I purchased from you a year ago is giving excellent satisfaction. We use one tank for soft water and one for hard water. I find that the engine uses very little gasoline, and is very easy to operate. Ten pounds pressure on the tank will force the water to any part of the house. Yours truly, N. SANGSTER.

THE OUTFIT CONSISTS OF :

White enamel bathtub, closet with tank, lavatory with fittings, hot water boiler for kitchen range, kitchen sink, engine and pump, pneumatic pressure storage tank and piping.

We have installed many similar systems in all parts of Canada.

Tell us your needs, and we will submit estimates without charge or obligation.

EMPIRE MANUFACTURING CO., LTD. East London - - Ontario

ELEVATES GREEN CORN INTO THE HIGHEST SILO

or will blow dry straw 60 feet up into and across the barn

Handles either corn or straw equally well, the only successful combination machine of this capacity made in Canada.

Wilkinson Climax "A" Mounted Pneumatic Ensilage and Straw Cutter

Capacity limited only by amount of material that can be got to the machine. Requires less power than any other machine of the same capacity. No lost power.

13-inch mouth, rolls raise 8 inches and set close to the knives, making a solid, compact cutting surface.

Direct pneumatic delivery, no worm gears or special blower attachment.

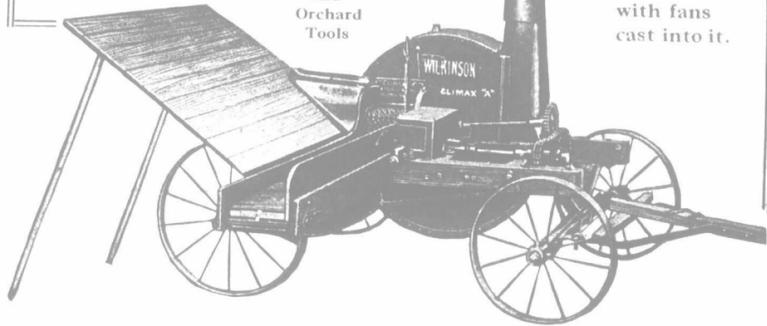
The knife wheel also carries the fans. No lodging on wheel arms, everything cut, wheel always in balance.

Supplied with necessary pipe and elbows, pipe rack, set of extra knives, tools, etc.

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The Bateman-Wilkinson Co., Limited 418 Symington Ave., Toronto, Canada

Wilkinson and Iron Age Farm, Garden and Orchard Tools



Friction drive.

Reverses instantly.

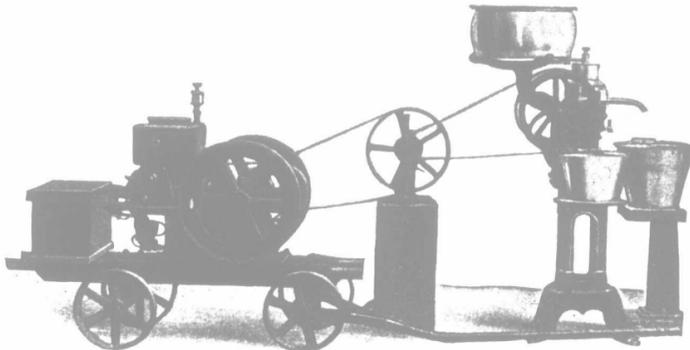
Babbitted bearings.

Steel slat feed run set low.

Straight, flat, thin knives, easy to sharpen, take less power to operate.

Knife has inward shear cut.

Heavy knife wheel with fans cast into it.



SOLVING THE "HIRED HELP PROBLEM"

This MONARCH 1 1/2 h.-p. Engine attached to our Intermediate Friction Clutch Pulley solves one of the problems for hired help. No counter shaft needed with this attachment. The machine driven is always given its speed automatically, and needs no special attention from the operator. We also make special pulleys to fit separator. Get our catalogue. It's free for asking. We make all sizes of engines, from 1 1/2 to 35 h.-p. Ensilage Cutters, Grain Grinders, Pump Jacks, Saw Frames, Friction Clutch Pulleys.

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the season a DE LAVAL SEPARATOR

saves most over
any other separator
or skimming system

IT'S A GREAT MISTAKE FOR any dairy farmer without a separator or using an inferior machine to put off the purchase of a De Laval Cream Separator in the summer months.

GREAT AS ARE THE ADVANTAGES of the De Laval over all other separators, as well as over any gravity setting system, at every season of the year, they are even greater during the mid-summer season than at any other time.

THIS IS BECAUSE HOT weather conditions occasion greatest butter-fat losses with gravity setting and render it most difficult to maintain quality of product with any gravity system or unsanitary separator, while, moreover, the quantity of milk is usually greatest, and any loss in either quantity or quality of product means more.

THEN THERE IS THE GREAT saving in time and labor with the simple, easy running, easily

cleaned, large capacity De Laval machines over all other methods or separators, which naturally counts for most at this time of the year.

HENCE THE GREAT MISTAKE of putting off the purchase of a De Laval Cream Separator in summer, whether you already have a poor machine or none at all, and every dairy farmer should keep in mind not only that a De Laval will pay for itself by next spring but may, if desired, be bought on such liberal terms as to actually save its own cost while being paid for.

EVERY CLAIM THUS MADE is subject to easy demonstration, and every De Laval local agent is glad of the opportunity to prove these claims to you, in your own dairy, without cost or obligation on your part.

IF YOU DON'T KNOW THE nearest De Laval agent please simply write the nearest main office as below.

DE LAVAL DAIRY SUPPLY CO., Ltd.

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

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

Are You Interested? In a Business Career?

If so, why not start now by canvassing subscriptions for The Farmer's Advocate and Home Magazine in your spare time?

Experience and confidence in a man is what makes him a success. To get confidence you have to have experience. To get experience you have to make a start.

START NOW!

Write us for our splendid offer, and let us tell you how to go about it.

BOX 102, THE WILLIAM WELD CO., LTD.
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AGRICULTURAL LIME

Analysis: Beachville Lime, 97 to 99% Carbonate of Lime

Ontario farmers know that limestone land is the best wheat land. And many know that Lime and Phosphoric Acid have doubled the yield. Why not buy the highest grade Carbonate of Lime and the highest grade Phosphate? This will give you a fertilizer of highest analysis and profitable results at less than half the cost of any on the market. Write for particulars.

HENDERSON FARMERS' LIME & PHOSPHATE CO., Woodstock, Ont.

You can assure your family a
Monthly Income for Life
or assure yourself an income during your old age
by means of an
Imperial Monthly Income Policy
Write for particulars now and mention the
Farmer's Advocate. Address:—
Imperial Life Assurance Co.
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is necessary for big crops. Send
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You men whose wives
are nobly bearing their
share of life's burdens—

Give them the comfort,
the pleasure and benefit
of this delicious long-last-
ing confection.

Small in cost, but big in
the joy it brings. On
sale in your town.

Write for free sample
and copy of booklet—
"Wrigley's Mother Goose"

WM. WRIGLEY JR. CO., Ltd., WRIGLEY BLDG.
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MADE
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Kept right



CANADIAN PACIFIC

NEW TRAIN SERVICE—NOW IN EFFECT
TORONTO—LONDON—DETROIT—CHICAGO

"THE MICHIGAN SPECIAL"		"THE QUEEN CITY"	
Lv. TORONTO	11.50 p.m. Daily (E.T.)	Lv. LONDON	9.00 a.m. Daily
" GALT	2.16 a.m. " "	" WOODSTOCK	9.39 a.m. " "
" WOODSTOCK	3.30 a.m. " "	" GALT	10.29 a.m. " "
" LONDON	4.43 a.m. " "	" GUELPH JCT	10.57 a.m. " "
" CHATHAM	7.00 a.m. " "	Ar. TORONTO	12.15 p.m. " "
Ar. WINDSOR (MCR)	8.30 a.m. " "	LONDON PASSENGER	
" WINDSOR (CPR)	8.50 a.m. " "	Lv. DETROIT (Fort St.)	7.00 p.m. Daily
" DETROIT (Fort St.)	9.30 a.m. " "	" WINDSOR (CPR)	7.40 p.m. " "
" DETROIT (MCR)	8.10 a.m. " (G.T.)	" TILBURY	8.34 p.m. " "
Lv. DETROIT	8.25 a.m. " "	" CHATHAM	9.08 p.m. " "
Ar. CHICAGO (MCR)	3.30 p.m. " "	Ar. LONDON	10.50 p.m. " "

Particulars from any Canadian Pacific Ticket Agent, or from W. B. Howard, D.P.A., Toronto

FREE LAND FOR THE SETTLER IN Northern Ontario

Millions of acres of virgin soil, obtainable, free at a nominal cost, are calling for cultivation. Thousands of farmers have responded to the call of this fertile country and are being made comfortable and rich. Here, right at the door of Old Ontario, a home awaits you.

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

H.A. MACDONELL, Director of Colonization, HON. G. HOWARD FERGUSON,
Parliament Buildings, TORONTO, ONT. Minister of Lands, Forests and Mines.



LI.

LONDON, ONTARIO, JULY 13, 1916.

1242

EDITORIAL.

Keep up the war on weeds.

Holding fast in adversity rather than hurraing is the final test of loyalty.

It takes more than an hour-fast clock to get some people out of bed in the morning.

The one hope for the corn crop is cultivation. It got a late start, give it a boost.

The closer the agricultural college is to the farm the better for college and farms as well.

There is almost as much in feeding as in breeding. See that the calves get the right start.

Save all the hay possible in good condition. Ontario will need all the feed next winter.

Canadian agriculture asks for the biggest available man to fill the late Dr. C. C. James' place.

The biggest lesson that the world ought to learn from the war is how not to let it happen again.

Let us not slacken our efforts at home while the men at the front are smashing the German lines.

Theodore Roosevelt may never again be president of the United States, but he sets its pace and policy.

It is reasonable that an aged beef cow should show with calf by side. Then everyone knows she is a breeder.

Beef cattle reached the unprecedented price of \$11.10 per cwt. on Toronto market one day recently. Breed more good beef cattle.

All indications point to another heavy crop in the West this year. Ontario can grow the roughage, and the western provinces the concentrates.

No one should show a poorly-fitted animal. Thin stock is not a good advertisement for the owner, the breed or the fair. Put on the finishing touches now.

It never pays to count chickens before they are hatched. The German flag was, according to the Kaiser, to fly over Verdun July 1, but it didn't.

Hoe the mangels and turnips clean the first time. Work may be so pressing later on that they will not get a second hoeing. Work well done is twice done.

It seems strange to the man who is not a farmer that when prices for any farm commodity are high the farmer has little of that particular article to offer.

The farmer of Eastern Canada should stick closer to live stock than ever. His success or failure depends largely upon the numbers and kind of stock kept.

A weedy and neglected roadside soon means a dirty farm. If the municipality fails to look after the weeds on the road, each farmer should see that they are cut adjacent to his property.

A Good Point in Beef-cattle Classification.

In the Live-Stock Department of this issue there appears, in an article dealing with one breeder's work with Shorthorns, a few items of interest to Canadian breeders and Canadian Fair Managements, particularly in reference to the aged-cow class in the beef breeds. When there is nothing really binding stipulated in the rules regarding cows three years or over, this class gradually becomes or may become more or less of a joke. The winners may soon join the perennial class and appear year after year, probably never having raised a calf in their show-ring career. If the aged-cow class is to be a breeding class the evidence should be clear that the individuals composing the line-up are breeders. Aged mares must show with foals at foot. It seems just as reasonable that aged beef cows should show with calves at foot. If a cow is a non-breeder and simply a lump of nicely-turned fat, her place is not in a breeding class, but rather in a butcher's line-up. Shorthorn cows at the Minnesota State Fair are judged each with her calf at foot, and the class is placed according to the combined merits of cow and calf. This looks like a fair move. It is certainly not a good thing for any breed to have non-breeders year after year carrying off the best prize money. It is poor encouragement for young breeders. Minnesota came to the present rules by a process of evolution. First these cows were required to show in milk, which would indicate that they were producers. Some exhibitors were successful in developing and perpetuating milk production in irregular breeders and the judge was fooled. Then they tried the rule that all females in the class must show in calf, but no one could be sure whether certain heavy-middled cows were in calf or not, and the rule was soon proven unsatisfactory. Then came the present order of things, which seems to be working well. All that is necessary is to eliminate the aged cow from the graded herd and make it run: herd bull, two-year-old heifer, yearling heifer and heifer calf. This rule ensures a more uniform line-up of cows on a fairer basis. How does this appeal to you?

To Make Plowing Matches of Practical Value.

Plowing matches, as carried on in Ontario and Eastern Canada, leave some doubt in the minds of those who follow them closely as to their real value from a practical viewpoint. No one wishes to belittle the importance of good, straight, well-turned plowing, but the old, narrow-bottomed, iron plow, the real man-killer with which the greater number of contestants at our annual matches wrestle for a whole day and then turn a comparatively small-sized plot of land is now obsolete. The twentieth-century Canadian farmer is too busy to be bothered with such a slow method of plowing his land. If he chooses to use a single plow at all he insists on it turning an acre and a half or more per day. As a matter of fact the bulk of the work is now done with a two-furrowed plow. This does not mean that good work with these implements should not be encouraged. First-class plowing from a practical farm standpoint can be done with either the wider-bottomed, single plow or the two-furrowed plow. Who ever sees one of the big, long-nosed iron plows, so common at plowing matches, in use anywhere else but at the matches? Then why not have the plow that is in practical use predominate at the matches? We simply leave this for our plowmen to think over.

While on this point how would it be to carry the plowing competition to the farms of the contestants, and thus make their work doubly valuable to them-

elves? Field Crop Competitions have been a big success in Ontario. There seems no reason why Field Plowing Competitions could not be made equally successful. A ten-acre field, well plowed, would be of more real value and would create more interest than the narrow strips at the plowing match. The Agricultural Societies and Plowmen's Associations might well consider putting on a competition in each district for the best-plowed field of ten acres in the district. There could be entries for the different types of plows in sod and in stubble, and special classes for boys much the same as at the match as we now know it. Shortage of labor on the farms would make it imperative that the farmer fool away no time in turning furrows by hand. He would have to plow with the plow, not his fingers and feet. He would reap the benefit of ten acres plowed better on his own farm. The rest of his farm would be plowed more evenly. His neighbors would become interested and stimulated to greater efforts. More farms and farmers would benefit. As many classes as now known to the plowing match could be competed in. If the acreage is too big make it smaller; if too small make it larger. Ten acres is a fair-sized field or block of land in Eastern Canada. At least there would be a greater area well plowed and the farcial manoeuvres of the present plowmen at matches would be done away with. There is not time in this day and age for fixing crowns by hand and for working all day on a half acre of land. Let the contest be of practical value. If this idea is worth anything discuss it through these columns. Discuss it anyway.

Playing Host to the Buyer.

The biggest departmental stores in the greatest cities systematically and efficiently play host to the buyers of their goods. They make it a point to make shoppers as comfortable as possible, to keep them pleased, to make them feel at home and well satisfied, and to make it easy for them to negotiate their purchases. The store management, from top to bottom, makes its first duty that of host to those who come through the doors of the big building to see and shop. There is little analogy between departmental store business and farming, but the breeder of pure-bred stock, and the seller of pure seed, and, in some instances, the general farmer, who turns off a steer now and then, disposes of a horse or two each year and always has a few pigs getting ready for the butcher, might consider a little more seriously the advantages of being a good host to prospective buyers.

First, as with the big store, it is necessary to advertise widely and well. Good advertising is not composed of inflated accounts and over-drawn word paintings. It is simply the truth well clothed in suitable and fitting terms. In the long run it always pays to tell the truth, but tell it well.

Advertisements will bring customers if good goods are advertised. Make it as easy as possible for the prospective buyer to size up what you have to offer. If it is pure-bred stock, have pedigrees and all information concisely worded on a pamphlet for him to inspect. If dairy stock, give full particulars as to milk records as well as breeding. It is a good idea to have the name of each animal, with date of birth, placed conveniently over each stall. Always display the stock to the best advantage. A clean stable with plenty of good bedding and well-groomed cattle and horses helps wonderfully to please the buyer and make him feel at home. If it is cattle for the butcher or hogs or lambs for slaughter it is well to know their weight. All do not have facilities for weighing, but a good set of scales are valuable on any stock farm. We believe that it is fairer for all concerned when all meat for the butcher is sold on foot by the pound.

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.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.
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THE WILLIAM WELD COMPANY (Limited),
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You may make a good bargain by the dollar, but if the drover is "done" he'll likely get even next time and maybe a little more. A fair price per pound and fair weight is all anyone should ask.

In selling breeding stock, cattle and horses, have them well broken to lead. Show them in the stall and out. Describe them as you go. Give all particulars as to sureness in breeding and quality of progeny if any, and do not hesitate to show the stock that is not for sale as well as that offered. You know, it always pays to treat other people well. You cannot afford in business, the live-stock and farming business not excluded, to offend anyone through lack of courtesy or shady dealing. We know that farmers' wives have, in the past, been imposed upon to a certain degree by agents and travellers of one kind and another dropping in for meals or lodgings at an inopportune time. Make a distinction between the man who is of use to your business, and the one who is using you only for the development of his own business. Be a good host to the man who buys your goods or even comes to buy them. It pays.

It is a fair subject for consideration whether or not in planning to meet the future industrial activities of present enemies, industrial efficiency should not deserve equal or greater reliance than a trade-strangulation system, more than likely to be the precursor of another era of blood.

Canada is a big country capable of absorbing great numbers of newcomers, but those in charge should be careful that those coming to our shores are of a desirable class. One Britisher is of more value than a score of foreign enemies.

Judging from some of their essays now coming to this office the boys and young farmers are finding many valuable ways for their fathers to increase the returns from their farms. Keep up the good work boys.

Nature's Diary.

BY A. B. KLUGH, M. A.

Insects which are very troublesome pests of man and cattle over a large part of Canada are the Buffalo Gnats, or "Black-flies" as they are often termed. The damage done by these insects results from their painful bites and the loss of blood which ensues, and when they are abundant they sometimes cause the death of live-stock.

These insects belong to the Genus *Simulium*, the species which is apparently most abundant in eastern Canada being *Simulium venustum*. As is the case with the Mosquitoes and with all the blood-sucking Flies, it is only the female that bites. In the case of the Buffalo Gnats, it has been proved that it is only after the taking and digesting of a meal of blood by the female that the eggs in her ovaries come to maturity.

The eggs are usually deposited on grass-blades which are bent over and trail on the surface of small streams, though they are sometimes laid on sticks, stones and the leaves of herbs just beneath the surface of such streams. The eggs adhere to the leaves, etc., by a creamy viscous matrix entirely covering the eggs. A single female lays about five hundred eggs, depositing them at about the rate of one every two seconds. The eggs hatch in from seven to twelve days, the average time being nine days, and during this period they must be kept continuously moist or they fail to hatch.

The larvæ of *Simulium* are aquatic and require running water for their development. They are cylindrical in form with fan-like organs at the head end. (See Fig 1). These fans act as strainers which catch the micro-organisms on which the larvæ feed and sweep them into the mouth. On the second segment of the thorax is a single pro-leg with a sucker-like disk at its extremity, and at the end of the body is another and larger disk. It is by means of these disks that the larva attaches itself. Respiration takes place by means of what are known as rectal gills which are extensions of the rectal walls. These gills are filled with blood-tubes and air-tubes, and can be withdrawn into the rectum or extended at will.

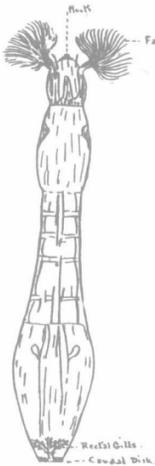


Fig. 1—Larva of *Simulium*.

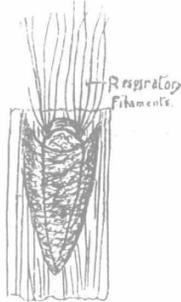


Fig. 2—*Simulium* in its case on a grass leaf.

From twelve to sixteen hours before hatching the young larvæ are in an apparently free condition within the shell of the egg. There are continual convulsive movements of the head and body and the shell suddenly splits open and the larva tumbles out. It immediately attaches itself by its pro-leg to the nearest object, waves its posterior end several times, evidently to clear the rectal gills, and then attaches itself by its caudal disk. It then commences to feed on the matrix surrounding the eggs and on adjacent micro-organisms. By means of the silk glands in the mouth the larva forms a silken thread to hold it in position in the current.

On being suddenly disturbed, or on the diminishing of the current, the larva let themselves be carried down stream steadied by the silken thread which they have attached to some stationary object, and seek a more favorable location. A heavy rain causing a sudden increase in the swiftness of the current will often entirely change the distribution of the larvæ, by washing them down stream to become established lower down, and this fact is of considerable economic importance, as it may account for the sudden appearance of Buffalo Gnats in localities usually exempt.

The food of the larvæ is entirely microscopic and consists of minute Crustaceans, Diatoms and Algae. The time spent in the larval stage is usually seventeen days.

Before changing to a pupa the larva spins itself a pocket-shaped case of strong silken threads, (See Fig. 2), and on pupating the pupa attaches itself to the inside of this case by means of strong hooks on the abdomen. The operation of spinning the pupal case and pupation takes from forty-five to sixty minutes. The pupa breathes by means of long respiratory filaments and the pupal stage lasts from eighty-four hours to nine days depending upon the temperature of the water, the average being five days.

When ready to emerge the adult insect exerts a strong pressure on the head end of the pupal skin, which splits, the adult at once rising to the surface of the water and taking flight.

In Canada there are three or four generations of Buffalo Gnats annually, while farther south there are five or six generations.

The chief enemies of the Black Flies are certain parasitic worms, Caddis-fly larvae, nymphs of Dragon-flies, and small minnows, all of which prey on them in the larval stage.

From this study of the life history and habits of the Buffalo Gnats we can see that they are very difficult pests to control, as the entire elimination of surface running water from a locality would be the only means, so that the best we can do in regions where they abound is to prevent them from biting us by using Nesmuk's Dope (Oil of Pennyroyal, Castor Oil, and Oil of Tar in equal parts) and from biting our cattle by spraying them well night and morning with pine tar and coal oil.

THE HORSE.

Lameness in Horses.

(Concluded.)

General Treatment of Lameness.

In concluding this series on "Lameness in Horses" it may be wise to briefly mention the general principles that should be observed in treating cases of lameness.

The first, and most important necessity, is to make a correct diagnosis. This, in many cases, even to the veterinarian, is a difficult matter, but to the amateur is much more so. At the same time, unless it be done, treatment is practically haphazard, and may be calculated to do harm rather than good. The next step is the removal of the cause, if that be possible, and of every circumstance calculated to aggravate the effect. After these points have been attended to, the position of the limb and foot demand attention, in order that the patient's efforts to remove pressure and tension from the seat of pain may be assisted. If a lame horse stands with the foot of the lame limb flat upon the ground, that is, touches the ground with both toe and heel, and if the feet are good and strong, all shoes should be removed, in order that he may stand upon his feet, and be able to poise his body in the natural way. But if the feet are poor and weak, they should be protected by light, flat shoes. Simple cases of lameness, where recovery is likely to take place in a few days, are exceptions to this method, but in all cases where it is probable the patient will require a considerable period of rest, the plan will give good results.

If, however, the horse is inclined to elevate the heel, to stand upon the toe—the position indicating that the affected parts are thus relieved, and pain lessened, it is well to have him shod with a high-heeled shoe. This will, in many cases, afford some degree of immediate relief; but if, on the contrary, he is inclined to throw his weight upon the heel, a low-heeled shoe should be used. The peculiarity of the position in which the patient endeavors to stand should be carefully noted, and endeavors made to, so far as possible, assist him in assuming this position. In cases where he cannot bear any weight upon the diseased limb, it is generally wise to place him in a sling. It must be remembered that in the use of slings, the patient must not be entirely suspended. The sling must be only sufficiently tight to enable him to put all his weight upon the three sound legs, and so that when he eases weight upon these he will be suspended by the sling, and will have no difficulty in shifting the weight from the sling to the limbs when he wishes to.

When the parts are put in as complete a state of rest as possible, the effects of the primary lesion will command attention. These are inflammation, pain, and, in most cases, more or less swelling. These are the results of the injury, and, except in cases where the tissues involved have been torn, lacerated or badly crushed, they are the only morbid conditions in the early period of the lameness. It is important to appreciate this, as by proper attention to the case, alterations of structure may be prevented; while if it be now neglected, the patient worked for a day or two, or otherwise improperly treated, organic changes may ensue, rendering the lameness incurable, or curable only by a lengthened process of repair.

For the reduction of inflammation, constant or long-continued applications of either heat or cold to the parts are very useful. Opinions differ as to which is the more effective. Probably heat relieves soreness and pain more quickly, while cold, by contracting the blood vessels and thus stimulating circulation, tends to reduce swelling more quickly. There is, however, no definite rule to guide the practitioner in using either heat or cold, and the choice is often a matter of experience. In all very painful affections the writer prefers hot applications, either water or poultices for a few days, and when the pain is subsiding making a change to cold and bandages to encourage absorption of the exudate.

Purgatives are useful during the first stages of lameness in most cases. They tend to aid in reducing the inflammation, and, of course, the diet should be light, consisting of bran and hay, and in cold weather it is good practice to remove the chill from the water taken. After the acute stages of inflammation have subsided, if lameness still remains, the application of counter irritants is rendered necessary. These consist in stimulant liniments, blisters and the firing iron. The action of these remedies differs only in degree, in rapidity and in permanence, not in the nature of the exudation they produce. The theory of counter irritation originally was that "no two inflammations could exist at the same time in the same region." Hence, if inflammation existed in a

are certain of Dragon-ry on them bits of the ry difficult of surface nly means, ey abound Nesmuk's Oil of Tar y spraying and coal oil.

more or less deep-seated part, and an artificial inflammation was produced in the skin and other tissues covering the parts, that the external inflammation relieved that of the deep-seated structures. This, of course, is irrational and unsupported by evidence. The general theory now accepted is that the superficial inflammation produces a reparative action; stimulates the absorbents, and tends to remove the exudate and restore the parts to their normal condition.

WHIP.

Shire Horse Breeding and Shows in England.

EDITOR "THE FARMER'S ADVOCATE":

During recent years Shire horse breeding has been one of the mainstays of many small farmers, and that a good deal of money is to be made out of this pursuit, given suitable conditions, is now generally recognized. The farmer who breeds a good type of Shire foal can rest satisfied that he is breeding stock which will grow into money, and upon which he will see a profitable return by and by. Despite the increasing adoption of mechanical motive power, the demand for heavy draft horses for town, as well as country road work, does not appear to have been adversely affected, and it certainly remains very active, prices being as high for this class of horse as ever they have been. This demand affords a highly remunerative market to breeders of Shire and Shire-bred horses, which breed practically monopolizes the heavy draft-horse market, excepting in the north of England, where the Clydesdale now competes with it to some extent.

Speaking in a general way, it will, as a rule, prove more profitable for tenant farmers who breed Shire horses to cater for this market than to try to rear stallions for stud purposes. Shire fillies, of course, always possess an intrinsic breeding value, apart from their usefulness as working animals, but not so in the case of colts, and breeders will be well advised to exercise the greatest discrimination in keeping the latter entire, with a view to selling them as stallions later on. As it is, there is an unfortunate tendency among some English Shire breeders to raise too many stallions, and the stallion market is in consequence decidedly overstocked, excepting as regards the very best class of sire, for which there is always a very great demand.

The breeder should always bear in mind that a colt which would make only an indifferent stallion, and in that case be comparatively unsaleable and not worth much—because there are too many of that class about—will be a first-rate draft gelding, and as such command a ready sale at a good price, to say nothing of the fact that all the risk and trouble which are inevitably connected with the rearing of entire colts are altogether avoided by castration.

The practice of keeping indifferent or insufficiently promising colts entire, no matter how well bred they may be, is, therefore, not only to be condemned on general grounds and in the interests of the Shire breed as a whole, because the use of such inferior stallions does not tend to its improvement and can only do harm, but from the breeder's personal standpoint also, and looking at it merely from a pecuniary point of view, it is, as has been shown, decidedly the best policy to geld all but the very best and most promising colts.

In no respect probably has the Shire breed made more progress of recent years than as regards the improvement of the limbs. These have become tougher, stouter, and sounder, and the joints stronger and bigger than was formerly the case. It is, needless to say, a most important requirement in heavy draft horses used for street and road work that their legs and feet should be possessed of good wearing capacity, as that kind of work subjects them to very hard wear, and buyers of this class of horse always attach great importance to this particular point.

Despite the fact that considerable improvement has already been wrought in regard to the legs of Shire horses, there still remains a good deal of room for further progress in this direction, and breeders should keep this well in view in their breeding operations, laying special stress both upon good conformation and upon soundness of the legs and feet in the breeding stock. A sound, strong and good set of legs and feet are not so easily got, and require to be very carefully and diligently bred for, it being most essential that the breeder should concentrate particular attention on this point.

The Queen visited the Richmond Horse Show, held in mid June, in aid of the Star and Garter Fund for disabled soldiers.

Her Majesty was received by the Mayor of Richmond, and a little later Queen Alexandra arrived with the Grand Duchess George of Russia, and King Manuel and Queen Augusta Victoria were also present. Judge Moore's horses were missing, so were Col. Sir Adam Beck's great hunters. In the open hack class both quality and quantity were excellent. No fewer than 24 were sent in, and a well-known prize winner, Captain Faudel Phillips' Chocolate Soldier, took first prize.

In the Riding-Pony class Lady Dalmeny took first prize with Forward Boy, of polo type and polo bred. Among the Shetland pony exhibitors Mrs. Gordon Colman and Mrs. Etta Duffus were the most successful.

In the class for harness ponies, W. W. Bourne took first and second prize with Brickett Bauble and Brickett Fame, both ponies of fine action and great goers.

In the open class for single harness horses appeared

some of the biggest prize-winning horses of the day. Premier honors were disputed between McCall Brothers' Lady Champion and Philip Smith's Adbolton Black Prince, and the red rosette was not awarded to the former until a referee had been called in. Both are fine movers with pronounced action, but Lady Champion appears to have more pace than Mr. Smith's horse, who has been a great winner in his day, and who still goes with wonderful fire.

In the pace and action class, Walter Winans was first and second with Bonnie View and Sunset, and reserve with Discord, and then came a very good class of double harness pairs in which Philip Smith took first prize with Queen of Ayr and Melbourne Princess, and Captain Quintin Dick was second with Sprightly Spark and Acclamation.

Hunters filled a conspicuous place in the program, three classes drawing 72 entries. In Hunters up to less than 14 stone (which had an entry of 27) the winner, J. H. Stokes & Son's Red Denis, stood right out. He is a well-bred one by Denis Richard, dam by Wales, all in the Thoroughbred Stud Book. He is full of quality, stands on a short leg, with good shoulders and back, and he moves well in all his paces, whilst he gallops at a good pace. W. Cheney's Harkaway was second. He is a sporting looking bay, with a capital look out, and he gallops well and fast. The class for Hunters up to 14 stone was a very strong one of 20 entries. John Drage's Grey Tick was first. He is a short-legged, powerful bay, with capital bone; his shoulders are well placed, and he is a fine mover, both in fast and slow paces. Mr. Drage was also second with Dorando, a bay with style and manners.

The class for Hunters, ridden by a lady, was a compliment to the ladies, who have been so energetic in the management of hounds since the outbreak of war. There were twenty-five entries, of which fourteen put in an appearance. Lady Dalmeny's Redmond, ridden by his owner, won. Redmond is an ideal lady's Hunter, full of quality, a fine galloper, and fast, and with the best of manners. Cheney's Harkaway made a good second. Challenge Cup for best Hunter went to Lady Dalmeny's Redmond, with Drage's Grey Tick reserve.

The Gold Cup for best hack at the show went to Captain Faudel Phillips' Chocolate Soldier, and this being the second year running that he has won, the cup is now Captain Faudel Phillips' property. Reserve went to Lady Dalmeny's Forward Boy.



A Farm Horse Barn.

Many farmers prefer to keep their horses separate from the other stock. This is H. M. Rolph's barn in York Co., Ont.

Single harness horses, any weight, to be driven by the owner or a member of his or her family, brought out twelve of the seventeen entries. Mrs. Putman's Park Carnation, a level, good bay, with fine action, was the winner. Park Carnation was first and champion in harness at the Royal Lancashire, first in harness at the Rutland, and third at the Royal last year. Mrs. Tilbury's well-known mare, Gaythorn, was second, and Miss Brocklebank's good-looking grey, Optimistic, third. The class for tandem teams of any height was a great one with ten out of the twelve entries forward. P. Smith's Queen of Ayr and Melbourne Princess were the winners. Challenge cup for four-hand teams was one of the most interesting classes of the day. Cup and gold medal went to W. A. Barron's chestnuts, a team which it is scarcely necessary to say is well put together. They are well balanced and match well in every respect. They are also an excellent road team, and they won the whip for the best road team in the class. The cup for double-harness horses, 15 hands 3 inches and over, found W. A. Barron's stable in rare form. Cadogan Myram and Cadogan Flash, which made a wonderfully fine show as a pair, were first, and their stable companions, Cadogan Princess and Mayfair Maid, made an excellent reserve.

ALBION.

The horse barn illustrated in this issue is thirty feet by forty-four feet. It contains six stalls nine feet by five and one-half feet, and one good, big box stall. In one corner is a harness room, and overhead is a loft which will hold eighteen good big loads of hay and four loads of straw. It is well ventilated and has plenty of light. H. M. Rolph, the owner, is well pleased with it, and plans to preserve it by keeping it well painted.

LIVE STOCK.

Influence of Stock Shows.

EDITOR "THE FARMER'S ADVOCATE":

The show-ring is an important factor in live-stock improvement. There is nothing more gratifying to the breeder than to have his animals win a red ribbon in keen competition. To accomplish this he has exercised his best judgment in selecting and fitting an individual that may serve as a model for the less skillful and the inexperienced. It would be interesting if the development thus effected could be presented statistically. It is, however, coming to be a pretty well settled fact that a strong relation exists between the number and class of the competitions and the quality of stock a country produces.

In no other country in the world are there produced so many high-class animals of so many different breeds of horses, cattle, sheep and swine, as are to be found in Great Britain. From early summer until autumn she is a country of live-stock shows. There have been and are being learned lessons in the ideals of excellence at the ringside which the exhibitor in his own stables might take years of patient, practical work to master. True, great forward movements have been due to individuals. To Bates, Booth and Cruickshank must be attributed the credit of a remarkable progress in Shorthorns; Hugh Watson and McCrombie in Aberdeen-Angus cattle; Bakewell in sheep circles, and others still living are building up fountain-heads of improved stock of which the present generation of breeders are reaping the benefit.

But it is to market that all useful ideals must cater. It is the customer's likes and dislikes that must be met and the necessary types evolved that are required to supply the want. This was the guiding star that actuated the earlier master breeders, and while their work was suitable to the existing conditions, it would be a long way from passing muster now. In this strenuous age the constant changing of ideals goes on in breeding operations as elsewhere. While a few persons, here and there, over two continents may be building up excellent flocks and herds, educationally, the effect produced on the great rank and file of breeders is comparatively insignificant. It is only by close comparison such as the show ring provides that this necessary knowledge is made available

to them, together with the information as to the source of improvement from which they can draw the blood which will best suit their purpose.

The inference, then, is clear. Every breeder should be an exhibitor, for in such a course is embraced the very essence of live-stock breeding. In winning a share of the prize money there is honor and satisfaction. But in the trial of strength—the putting of one man's judgment in selection, skill and breeding against all comers is the great incentive which should be the spirit in which showing is followed. We have frequently heard a disappointed exhibitor remark, "I will never exhibit at such and such a show again. The judges never looked at my entry which was worth two like the

one they gave the prize to." But perhaps his defeat was largely due to his own fault. As likely as not he was one of those "cranks," who sacrifice utility for some fancy point. His cattle must have hair of a certain color, and his sheep wool to the nose and toes, while his pigs must have a certain curl in their tails.

To meet with the judges' approbation, the breeder should first steer clear of worthless fads; then study the market requirements as a guide to developing the utility side to the fullest extent possible, giving only the necessary attention to fancy points. The chief aim in meat-making animals is to produce a lean, juicy flesh—not fat—and bred to mature early. Constitution is important and is indicated by a smoothness of form, devoid of wide hook bones, bare loins, waspish heart girth and squeezed-in chest. If the breeder is wide-awake to his opportunities many a practical lesson will present itself in the show regarding the question of feeding. This is a matter of vital importance. He will be impressed with the fact that an animal to win in a present-day competition must not be too heavily grain-fed, as such a system does not give the quality of flesh now in demand nor tend to constitutional vigor. Rather are these desirable attributes promoted by an abundance and variety of green feed as will be noticed by the skin and hair of cattle or the sheep's fleece.

Then there is the art of exhibiting to advantage. An animal's toilet makes a wonderful difference in its appearance and is a legitimate means of catching the judge's eye. That, however, is not all. The cultivating of this habit for show purposes is likely to extend itself to an everyday practice.

Elgin Co., Ont.

AGRICOLA.

A Lifetime With Shorthorns.

Some Sidelights on Breeding, Exhibiting and Live Stock Sanitation.

In Canada the history of the Shorthorn is closely woven into the prosperity of Canadian agriculture, and as one crosses to the domains of our southern neighbor, the United States, there, too, this breed has hewed the road in pioneer days, and is to-day the most stable piece of furniture on the farms, bearing its burden in the agricultural procession. Without disparaging other beef breeds, which have attained a deserving place in American agriculture, it must be admitted that the red and white, with their color admixtures, have gained the confidence of the average farmer to a greater extent, not undeservedly, but because the Shorthorn has proved in average farm economics the best paying proposition.

It was not for beef alone that favor was won, nor for her dairy qualities, but as in Canada and in all countries where Shorthorns meet the demands of the farmer raising commercial cattle on moderate holdings, it was for her dual qualities, her meat and milk combination.

On the range the straight beef breeds hold sway, in which even certain strains of the Shorthorn classify. Near the great milk markets dairy breeds with their greater capacity for production hold their legitimate position, but on the average farm the Shorthorn is deep rooted in the soil of agricultural progress.

The Shorthorn cow, from a commercial standpoint, has always raised a beef steer and filled the pail in spite of the majority of pure-bred breeders gradually breeding out the dairy qualities and forcing their breed into the field of straight beef production in strenuous competition with beef breeds. The dual-purpose sphere was the greatest field of all. It was and is the greatest field because found practical in farm economics, but breeders have been a long time recognizing it. Slowly their mistakes are penetrating, they view the situation more clearly and are commencing to step back into line where the pastures are greener, where rivals are fewer, and to the kind in type and breeding that the average farmer is in sympathy with.

Many Shorthorn breeders are in a quandary and are maintaining a half-way dual-purpose herd. Many have not comprehended the situation and are pressing on, eliminating the dual qualities for which Shorthorns were originated and forcing keener competition for the Herefords and Aberdeen-Angus. In this latter classification is the Meadow Lawn Shorthorn establishment, owned by Leslie Smith at St. Cloud, Minnesota, just a few miles from St. Paul, the first pure-bred institution visited. Mr. Smith is a breeder and feeder of continental reputation. He is not dealing with the inanimate but the warm living; he is one of nature's artisans, not self made, but born with the keen eye and the warm heart for the natural which responds to his touch. He is a Scotsman from Aberdeenshire, and at 17 years won the Scottish Championship for steer feeding at the Smithfield Show. He served under the great breeder, Wm. McCombie, of Tillyfour, Scotland, and got a responsible position near Hamilton, Ontario, at the age of 21, managing a 500-acre farm stocked with Shorthorns. He farmed for a time in Manitoba, and when in 1895 N. P. Clark, of St. Cloud, offered him good wages as herdsman he accepted, and to-day through the current of events is sole owner of the establishment. In his youth he set out to rank with the best cattle fitters in the world, and when this distinction was attained he determined to hit the top rung in breeding cattle.

Breeding at Meadow Lawn.

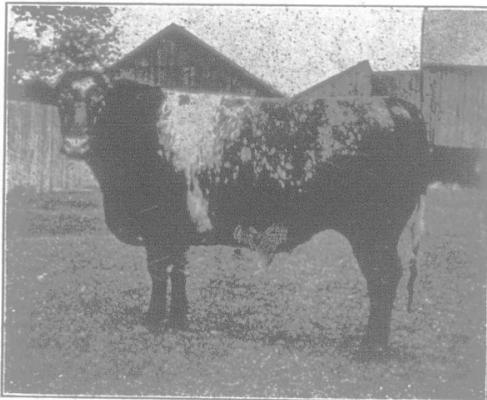
Leslie Smith, as he is known, views the dual purpose with scepticism and has won his laurels at the American foremost shows judged almost exclusively from the beef standpoint. His honors at the Chicago International Exhibition are remarkable, he having won the grand championship in females four times and grand championship in bulls three times on individuals bred and raised on the farm. In addition numerous groups and individual prizes have gone down to his credit.

"What breeding system did you follow to get these noted show winners?" was requested, to which he remarked: "In our breed operations we have always tried to get the best stock bulls we could find that we thought would nick with our females, and although the sire may be more than half the herd you must have good cows if you expect to produce anything extra choice. In 1900 I was over to Britain on the lookout for a stock bull, and after seeing many herds finally got word of a red bull north of Aberdeen. I went to see him, but the owner refused to sell. Finally I purchased the individual by taking a group. The bull was Red Knight, which afterwards sired the winning get at the International in 1903, the grand champion Lady Dorothea at the Lewis and Clark Show, also Welcome of Meadow Lawn 8th, second aged cow at that show, and our grand champion Welcome of Meadow Lawn 9th. Red Knight sired Marsh Knight, which bull has left his mark as a breeder, being the sire of two grand champion females at the International, Dorothea 2nd and Alice of Meadow Lawn, winners in 1909 and 1907 respectively for the Meadow Lawn establishment."

Thus the investment in Red Knight proved a good one, and not only produced champions but made a great impression on the whole herd. Leslie Smith became a noted winner in females, so much so that his

friends would sometimes ask why he did not buy and show a grand champion bull, to which his proverbial reply was: "I am waiting till I breed one." Finally he stated: "We bred one, Ringmaster, who stayed on top and won more champion ribbons at the big shows than any other Shorthorn bull in recent years. He was for us thrice grand champion bull at the International, 1910, 1911 and 1913."

It is true that to produce the best in any breed one must have the breeding, and then give such management that the inherent characters may assert themselves. In the average farm herd it is true, and quite often the breeding is partially thrown away since the care afforded does not give the inherent qualities a chance. It is more often true in the average farmer's herds that more can be accomplished by proper feeding methods than by breeding, but for greatest suc-

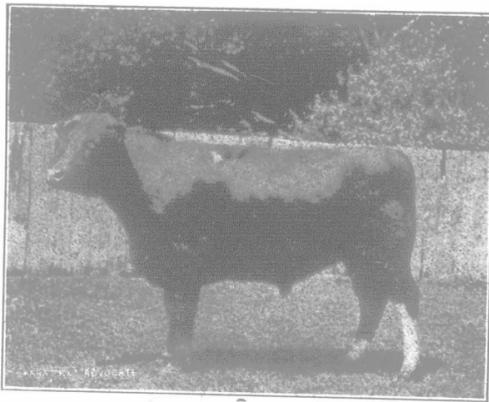


A Market Topper.

This steer, with his mate illustrated on this page, was bred and fed by Wm. Yeo, of Huron Co., Ont., and recently sold at the Union Stock Yards, Toronto, for \$11.10 per cwt.

cess the two must be combined. In the case of the Meadow Lawn establishment it is the team work of breeding and feeding that has secured prestige. It has been the natural art of the proprietor in manipulating things natural that has resulted in the raising of champions to the establishment's credit. The selection in females is based upon individual merit in conformation, blood lines and in performance. He closely observes the progeny and has run across certain families that breed consistently, some of them when mated properly producing show calves, others good commercial stock. He cited one instance of a cow that cost him \$700 that produced nine calves, averaging when sold around \$400. This cow had given in gross receipts \$3,600; they were not show calves but yet good ones.

We strolled through the barns and over the farm and saw the 116 pure-bred Shorthorns, of which about 60 are breeding females. In a small field of



Another Prime Steer.

Averaging, with his mate, 1,825 lbs. each, this steer, also fed by Mr. Yeo, brought \$11.10 per cwt. They were three-year-old Shorthorns.

luxuriant grass was his new herd bull, Craven Knight, purchased in Iowa and sired by The Gallant. He is a two-year-old. His breeding is good and in conformation he is thick, smooth and with strong character. The breeding cows and show cattle were brought into the barn for their evening feed. This barn is 60 by 120 feet. It is arranged for two rows of cows facing the centre, and on each side a row of calf pens. It is ideally suited for his conditions and many breeders there are throughout the United States who have adopted the same system. The calves in their pens are turned out from each side to their respective nurse cows or dams as the case may be. Almost every cow was a big, rugged individual and feminine

in type and character. Some of them were on the thin side nourishing their calves. The strain that had shown outstanding merit in his herd was requested. He replied: "Duchess of Gloster." He went down the line picking them out, all of the same type, mostly solid reds and almost identical types. In fact, after observing an individual of this strain one could "spot" the rest without assistance. Most of these cows had been sired by Marsh Knight and Ringmaster, while the young calves that were turned to suckle the cows were sons and daughters of Craven Knight.

Mr. Smith's son fed the stock and was preparing several calves for the futurity classes at the Chicago International this fall. "Backed by breeding the ultimate cow depends upon the care as a calf," intimated the proprietor. "They are fed so as to attain the maximum development of which their inherent characters will allow." Thus the calves were turned out from the pens to suck. Some were allowed one cow and others two. Those being prepared for show had the preference. This privilege was afforded up till eight months of age. In the meantime a feed mixture of bran, corn and crushed oats in equal proportions, along with pulped mangels and a little oil cake, was put in the calf-pen mangers and the calves eventually turned back into their pens to complete their meal. In this way they are fed three times a day, and put on pasture in the forenoon and for a while at night. These pastures are preferred a little bare rather than luxuriant in order to force them to consume more grain. We refrain from giving the amount of feed since this must be regulated according to individual animals, and the success or failure in feeding depends on the breeder's eye. On Meadow Lawn Farm they insist upon not giving more feed than the cattle will clean up thoroughly. They are retained at a point where each meal is relished, which requires a feeder's knowledge of individuality.

Shorthorn Prosperity.

In the house after meal time we discussed numerous questions ranging from blood lines in Shorthorns to tuberculosis legislation. We wandered from subjects and came back to them, trailed in a story occasionally, and wandered on the same as a bunch of farmers would on the nail kegs of the country store. From this conversation considerable information emerged. "How is the Shorthorn business in the United States?" was asked. "As a matter of fact," he stated, "there are not enough bulls to supply the demand. They are selling in a commercial way from \$150 to \$1,000, the average would be from \$250 to \$300. Two shipments of bulls have been made to Argentine Republic by the Shorthorn Association, 14 or 15 in February, which were bought on order and averaged \$1,200; a second lot of 18 shipped in April will be sold in August in that country." As in other beef breeds the Shorthorn is having a prosperous time. The American Association is endeavoring to control some of the South American business. These Latin states are liberal spenders, they will pay long prices, not one thousand but thousands for good individuals. In the past all of this business went to Great Britain. The Americans are endeavoring to divert some of this trade for the benefit of American breeders, and have made a start in doing so.

The American attitude towards Canadian Shorthorns is surprisingly good. Almost every Shorthorn breeder met stated, "Canada is a great Shorthorn country." Mr. Smith remarked Canadian-bred Shorthorns sell for higher money and more readily in the States than the American raised, and Shorthorns imported from Great Britain command a big premium on the market. To a question concerning the best breeding bulls in the United States, he stated that of the present breeding bulls Villager by Village Beau, Owned in Iowa; Sultan's Stamp by Whitehall Sultan in Wisconsin; Fairacres Sultan by Whitehall Sultan in Oklahoma; Cumberland's Type and Count Avon in Iowa were perhaps the outstanding ones. Of those which have left their mark in previous years he favored Whitehall Sultan, Avondale, Cumberland's Last and Red Knight of Wisconsin, Ohio, Iowa and Minnesota respectively. Among Canadian Shorthorns he favored Gainford Marquis and Ruby Master, both in Ontario herds. The leading two Shorthorn families in his opinion were the Augustas and Clippers.

Constructive Show-ring Policy.

From the discussion concerning show-ring standards some very interesting information emerged. It was information which had a bearing on our show-ring system in Canada. In the show rings throughout the continent the aged-cow class is usually a puzzle. Perennial winners travel the circuit, winners that are no better than spayed cows, and yet win in breeding classes. If a cow is of any usefulness in the world it is either for beef or producing calves. If for beef they should appear in the fat classes and not pose under the cloak of female conformation as breeders. Across the line they have had to contend with this problem and to stimulate the breeding industry in its true form. At the Minnesota State Fair the Shorthorn Association has arrived at a satisfactory solution. At first they required that females in the aged-cow class be in milk, thus indicating them to be producing calves.

Some of the clever breeders beat the game and "put it over" the unsuspecting judge. They perpetuated and developed milk production in poor breeders and thus qualified. The second step was a requirement that all females in this class must show in calf. This was not absolutely satisfactory because certain cows fed heavily on roughage would develop large barrels, and for other reasons there was no definite, exact test. Finally, they adopted the regulations now in force that each cow must appear with calf by side, and the class is judged according to the combined merits of the calf and cow. In this system the class is judged from a true breeding standpoint. The calves may also appear in the calf classes and be judged on their merits, thus little or no inconvenience is caused. The graded herd class is altered to meet the new conditions by requiring that it be comprised of the herd bull, two-year heifer, yearling and heifer calf, thus eliminating the aged cow.

Mr. Smith remarked, "We in the Minnesota aged-female class would never get a line-up such as I placed at Brandon last summer with a mixture of females, some breeding and others showing no indications of it." The institution of such a system in our show rings would seem reasonable for consideration and prove constructive in beef cattle breeding. "Why do not show cows more often prove out producers of show calves?" "Well, there are several reasons," he stated. "Often show cows are shy breeders and we have to use inferior sires to get them in calf, hence the progeny are not likely to be so good. Show cows as a rule are not given a chance to develop the best calves even when bred to good bulls, because of the condition which they must necessarily be in. Moreover, some of the best cows are too valuable as breeders to ever put into the show-ring." He cited, however, two cows that were show females and produced winners. They were Ruberta and Welcome of Meadow Lawn 4th, first and second prize as senior yearlings at the Chicago International in 1900, which gave birth to Ruberta's Goods and Welcome of Meadow Lawn 7th, both of exceptional merit. In the show-ring he believed the female classes should be placed more in keeping with female type and not from the fat-steer standard. "They should be cleaner cut at the head, cleaner," he interrupted, "at the shoulder, wider at the hips, well laid down at the flank and of the real matronly character."

Mr. Smith is breeding beef Shorthorns and is working for correct beef type and early maturity. "When we lose sight of the early-maturing qualities," he continued, "either in breeding or in the judging ring we lose sight of the commercial end."

The Beef and Dairy Cross.

The proprietor of the Meadow Lawn establishment does not wax enthusiastic over dual-purpose Shorthorns, he believes that the beef and dairy cross as practiced by many farmers in the United States is preferable. The system these farmers prefer to follow is to sell milk or cream from their dairy cows and cross them each time with a beef bull. They prefer the Aberdeen-Angus for such mating because the calves are usually black and polled, or, in other words, Angus in appearance, which, when finished, go to market and command fair beef prices. In this way the farmers secure the milk from their cows and also the beef steer. With this system they do not use the cross-bred for breeding purposes, but go out and purchase dairy cows of the dairy breeds when individuals in the herd are replaced. In contrast to many dual-purpose Shorthorn authorities he believes it impossible to hold any definite dual-purpose type. In beef Shorthorns the proprietor stated that heavy milkers are sports and not by any means the rule.

Legislation for Tuberculosis.

Sanitary legislation for tuberculosis is puzzling the best authorities in Canada, in consequence an effort was made to discover the progress in the United States regarding legislation pertaining to this disease. They recognize that tuberculosis is spread by the sale of infected breeding stock from pure-bred establishments more often than in any other single way, and have adopted federal legislation to meet this situation. This legislation prevents the interstate sale of breeding stock. It does not, however, prevent the sale of infected animals within the state. However, the trade of most breeders is not confined to one state but to many; in consequence it is to their interest to have a tubercular free herd that they may meet the requirements of this federal legislation. Certain states, of which Minnesota is one, have co-operated with the Federal Government by inaugurating a system of certifying herds. The breeder may make application to have his herd certified, tests are made twice a year and the reactors eliminated. It is thus credited as certified or tubercular free. The breeder can then ship breeding stock to buyers in any state. If the purchaser desires a certificate the breeder writes the State Sanitary Department for the last test of the individual animal, and the same is forwarded to the buyer with the pedigree. If the herd is not certified, to meet Federal requirements it becomes necessary that the individual animal pass the tuberculin test within 30 days previous to shipment. For a number of years Mr. Smith has been testing individuals in the herd, and two years ago it became one of the state certified establishments. The state takes over all reactors, refunds 75 per cent. of the value of the animals, but not to exceed \$150. If the stock be very valuable the cows may be quarantined on the farm to produce breeding stock, and later on the reactors turned over to the state. After being tested there are only two alternatives, the one to keep a quarantined herd and eventually turn it over to the state for slaughter,

and the other for the state to take possession of them immediately for killing purposes.

When treating at Meadow Lawn the veterinarian usually arrives in the morning, takes the first temperature 10 a.m., after which time the cattle are not watered or fed till after the final test. The temperatures are taken three times in the afternoon and between 6 and 7 p.m. the tuberculin is injected. On the next morning at 4 a.m. a temperature is taken and several others till 2 p.m. The cattle are given from 20 to 22 hours to react. To the question concerning the reliability of the test he stated: "With cows well advanced in the disease and old it takes the tuberculin longer to work on the system, but invariably it will get them if readings are taken up to 20 hours after injection. Once I bought several head of breeding stock, all of them tested and non-reactors. A little later one old cow began to decline, she was eventually slaughtered and was lousy with tuberculosis. This had been an advanced case but not detected by the test; however, such instances are very few."

The writer was later favored with an interview by Professor Hastings, who is on the Wisconsin State Sanitary Board, to whom the same question was put. He stated that the tuberculin test was 85 per cent. reliable. Four to five per cent. would react and not have tubercular lesions, while the other 10 per cent. might not react but still be tubercular. This latter was due to the fact that a test could not allow for the individuality of all animals, and the spread in temperature in-

dicating reaction varied. The breeders in the various states, however, seem enthusiastic over the test, and as Mr. Smith stated, they had little trouble in keeping their herds clean.

The natural place to start legislation with regard to tuberculosis is with the pure-bred herds, which can be the greatest means of distributing it. Thus it would seem that some Dominion-wide system would be advisable. The United States at the present time will not accept our breeding stock unless found free from the disease. The time is coming when the farming public will not purchase a bull without similar assurance. As soon as we endeavor to get clean, pure-bred herds another restriction follows in the wake, and that is tubercular free cattle shown at our exhibitions. The North Dakota State Fair requires all cattle to be free from the disease, and in Minnesota they expect to enforce similar regulations.

In the foregoing is a wide range of information concerning the Meadow Lawn Shorthorn establishment, of which Leslie Smith, the artisan in breeding and feeding, is proprietor. It is the history and methods in one of the foremost clean Shorthorn herds on this side of the water, and there emerges from this career a remarkable record which every farmer to some degree can emulate. He is a beef Shorthorn breeder in the battleground of the beef breeds; we may prefer to step back on to our historical dual-purpose pastures—that is a matter of opinion.

Modern Methods in Calf Rearing.

The fact that many live-stock trading places throughout Canada are supplied with a fairly liberal quantity of calves, while at the same time the demands for beef are constantly increasing on all the great meat marts of the world, suggests that stock farmers should "stop, look and listen." It cannot be said that the markets are over supplied with good veal, for they are not. The quality and size of the cuts of prime veal commend it to an ever increasing proportion of the consuming populace, but that should not influence the breeder if his feed lot is to be kept empty or his breeding stock depreciated both in numbers and quality by sacrificing to the public taste the best or the entire increase of his herd. During 1915 about 50,000 calves found their way to the Toronto Stock Yards, and 10,266 went to Buffalo from that part of Ontario which feeds these two markets. We cannot conceive of any conditions now existing that would render these figures consistent with good, live-stock husbandry. Nevertheless, many dairymen are so situated and are conducting such a business that any attempt to raise young stock would prejudice their profits. They would be excused in the minds of every one familiar with the different phases of dairying for disposing of the calves in any way which best suited their particular operations. Some even find it advisable to sell their farrow cows and buy fresh ones in order to keep up the supply of milk. However, there are producers of milk and dairy products who keep any kind of a bull that will get calves and cause their cows to freshen, but this practice, bad as it is from the viewpoint of the cattle industry, is not the acme of folly, provided the wornout cows are replaced by good ones purchased from herds free from disease. The saddest thing of all is to see a dairyman in this year of grace, nineteen hundred and sixteen, cross some thin-blooded scrub sire, having no pride of ancestry and entitled to no hope of posterity, with the herd, and then, in defiance of all the laws of live-stock breeding and common sense, instate during 1919 the female young of some of his 3,000 or 4,000-pound cows into the producing ranks, and dedicate them with all due formality to the service of the dairy industry.

The man who intends to sell his calves and replenish his milking herd with purchased animals, might well consider the use of a bull chosen from one of the beef breeds. For the calves would then be serviceable for beef production, and worth more for veal or feeders than those of straight dairy breeding. This phase will, however, be discussed later. There are so many angles from which the calf question may be viewed that a solution of the calf problem must have regard for the various features of the cattle industry. A dairyman may wish to sell the calves as soon as possible, and another may desire to raise them to increase or renew the herd. Some farmers

combine the beef and dairy business by rearing and fattening the young stock as baby beef. Other breeders again depend on the calves almost altogether as the source of revenue from the herd. If one could rear calves successfully without milk, the cattle-breeding industry would receive an impetus that would render it pleasant and profitable indeed. Labor is also a factor at the present time which must be considered. There is certainly a calf problem, and in the following paragraphs the writer will endeavor to set forth a few suggestions that may assist farmers in whatever phase of the industry they may be engaged.

Nature's Way of Rearing Calves.

Naturally a calf is reared on certified milk. This does not mean pasteurizing, clarifying or being subjected to any of the mechanical treatments so much discussed by the city boards of health. The calf has the advantage. It goes to the source of supply and gets its milk at the right temperature, in the proper quantities, neither skimmed nor watered, practically free from bacteria or germ life, and altogether uncontaminated by coming in contact with utensils or being exposed to a dust-laden atmosphere. Is it any wonder, then, that the suckling calf is usually sleek, well-fleshed, strong and contented? The pail-fed calf is at a disadvantage compared with the fortunate young bovine that gets its food supply from the udder of its dam or foster mother. This disadvantage may be overcome to a very large extent by practicing up-to-date methods, but these will be discussed when mention is made of pail-feeding.

The Amount of Milk Required.

A calf allowed to run with its dam or with a foster mother requires little attention over and above adequate shelter or stabling. Some cows will not give sufficient milk to raise a calf properly, but it is rather difficult to state what the required amount is. In "Feeds and Feeding" the following advice is given: "Guernsey and Jersey calves do not require over 8 to 10 lbs. daily for the first three or four weeks, while 10 to 12 lbs. is all a calf of the larger breeds should have." At this rate of consumption the herdsman should be careful that the young calf does not indulge too freely at first. While indigestion and scours frequently result from overloading the stomach, the average calf will stop sucking when sufficient milk has been taken to supply the needs of its young system.

To show the relation between the amount of milk required by a calf during the first month and the quantity given by cows of different capacity, some information was gathered from the actual milk records of a beef herd. The accompanying table shows the total production for each of six cows during the lactation period, and the average daily yield divided into monthly periods for the first 10 months. They illustrate the daily yield of cows varying from over 3,000 lbs. up to 10,000 lbs. and over, for one lactation period.

Average Daily Production.

Cow	Record	Months.									
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
No. 1	3,981	21	25	17	15	18	13	11	9	8	7
No. 2	4,342	25	18	14	14	13	11	8	7	5	—
No. 3	5,669	23	22	23	19	17	17	14	5	—	—
No. 4	7,665	31	34	32	33	28	25	24	21	9	—
No. 5	8,698	41	47	37	36	30	31	25	21	19	19
No. 6	10,380	40	52	45	41	40	33	26	19	18	14

It will be observed that in some cases more milk was given per day during the third month than at first, this was due to the season and the cows going on to grass. Every cow that might make a record of 3,981 lbs. would not produce milk in the same order as the one listed first in the table. One might be a more persistent milker and maintain a better yield toward the end but have less to her credit at first. The same is true regarding the five other individuals made an example of. However, one can gather from the table a fair idea of the amount given daily by cows with records that correspond with those listed.

Getting closer to the question in hand regarding the needs of a calf, the writer observed a young Short-horn calf turned this season with a foster mother, which from March, 1914, to March, 1915, gave 5,696 lbs. of milk. Her average daily yield before being let out this season was about 20 lbs. In spite of the fact that this cow was giving about twice as much milk as a calf is supposed to require, no ill results were noticed. It was apparently getting sufficient milk but not too much. Last year a cow in the same herd raised her calf quite successfully, and when turned to pasture was only giving from 2 to 3 lbs. at a milking. It is possible that a cow giving a considerable quantity of milk will soon diminish in yield to correspond with the requirements of her young, while one which will only put a small quantity into the pail may increase somewhat under the influences of the sucking calf.

Kellner, an authority on the scientific feeding of animals, writes that calves which will be fattened or used for breeding purposes should receive from one-fifth to one-sixth their live weight of milk. The following table sets forth the results obtained by several experiment stations in the United States, when investigating the average weight of dairy calves when born:

Weights of New-born Calves.

Breed.	No. of calves.	Av. weight of males.	Av. weight of females.
Jersey.....	119	58	49
Guernsey.....	57	75	68
Ayrshire.....	34	77	74
Holstein.....	104	94	85

According to Kellner, the calf weighing 94 lbs. would require from 16 to 18 lbs. of milk daily. Hunt, of the Pennsylvania Station, fed three calves of a beef breed on whole milk for 161 days. They gained 1.77 lbs. daily, and required 8.8 lbs. of whole milk, 1 lb. of hay and 1 lb. of grain for each pound of gain in live weight.

From the foregoing data it may be seen that a fairly good dam of one of the dairy breeds might easily raise two calves. The fact that a calf while developing requires an increasing quantity of milk, during which time the dam or foster mother is decreasing in her yield, necessitates that only cows capable of a fairly heavy and persistent flow should be entrusted with more than one calf to rear.

Substitutes for Whole Milk.

Probably the best substitute for whole milk that has ever been discovered is skim-milk, with some meal or oil added to supply those ingredients lost through the removal of the butter-fat. The new-born calf should have, under all circumstances, the colostrum, or first milk of the cow. Subsequent to that skim-milk can begin to replace the whole milk, but when the best results are desired the change should take place very gradually. In many dairy sections, calf

meal, as supplied to the trade, is extensively used and with good results. The directions for feeding accompany each bag, so no one should make any mistake in its use. To better understand the feeding of either purchased meals or home-grown grain, the composition of cow's milk is herein set forth.

	Crude protein. Per cent.	Carbo-hydrates. Per cent.	Fats. Per cent.
Whole milk.....	3.3	4.9	4.3
Skim-milk.....	3.6	5.1	0.2

It can be seen that except for the absence of fat in skim-milk, it is quite as nourishing as the natural product when first drawn from the cow. However, the mechanical separation of the ingredients and the way skim-milk is generally handled remove from it those properties that make the sleek and glossy animal when reared in the natural way. Pail-fed calves, even when they receive whole milk, are often less round and slightly less thrifty than the sucking calf, because they take their nourishment more rapidly and, too frequently, under less favorable conditions. After all is said and done, one must go back to nature's way if he wishes to raise a perfect calf. However, the live-stock industry is commercialized to such an extent that the majority of the young cattle must be reared in the cheapest way consistent with the demands of the market.

Some breeders and raisers of cattle labor under the impression that oil-cake meal with skim-milk will be similar in food constituents to whole milk. This is a mistake, for oil-cake meal is not rich in oil, but it does have a high protein content. Skim-milk itself contains more protein than whole milk, as the previous table shows, and consequently oil cake is not the proper substitute for butter-fat. Ground flaxseed soaked in water for 12 hours and then boiled to a jelly makes a very good substitute for the fat of milk. Mix one part of the flaxseed by volume with six parts of water, and at the beginning feed about half a cupful or less of the resulting jelly. This can be increased as the calf develops, but the size and vigor of the individual must determine the quantity of flaxseed used. The condition of the digestive system is also an indicator as to amounts.

When the skim-milk should begin to replace the whole milk in the rations is largely a matter of choice. The longer the whole milk can be allowed the better will be the calf when the alteration is made. Two or three weeks of whole-milk feeding at least is preferable, but when the calf is seven to ten days old the change can be made gradually with satisfactory results. Without explaining in full the technique of gradually changing from whole to skim-milk, we simply outline the part of an experiment conducted at Macdonald College, P. Q., some years ago. The methods employed in feeding this calf, which was pail-fed from the first, may very well act as a guide to any one. The rations for the first thirty days were somewhat as follows:

- Birth until four days old—8 to 10 lbs. whole milk in three feeds per day.
- Fifth until seventh day—10 lbs. whole milk in three feeds per day.
- Seventh to tenth day—12 lbs. whole milk in three feeds per day.
- Tenth to fifteenth day—11 lbs. whole milk and 1 lb. skim-milk, in two feeds per day; also 1 teaspoonful linseed porridge each feed.
- Fifteenth to twentieth day—9 lbs. whole milk

and 3 lbs. skim-milk in two feeds a day; also 1 teaspoonful porridge each feed.

Twentieth to twenty-fifth day—7 lbs. whole milk and 5 lbs. skim-milk in two feeds a day, also 2 teaspoonfuls porridge each feed.

Twenty-fifth to thirtieth day—3 lbs. whole milk and 9 lbs. skim-milk in two feeds a day; also 1 tablespoonful of porridge each feed.

Thirtieth day—12 lbs. skim-milk in two feeds a day; 2 tablespoonfuls of porridge each feed.

From this on the skim-milk was increased to 24 lbs. per day in two feeds, and the linseed porridge was increased to half a pint, as the calf developed. It was weaned at six months.

At birth the calf weighed 85 lbs., and, at the end of the first month, 120 lbs.; during the thirty days it consumed 228 lbs. of whole milk, 136 lbs. of skim-milk and 2 lbs. linseed meal. At the end of the second month it weighed 148 lbs. and had consumed 360 lbs. skim-milk, 9 lbs. linseed meal, and 4 1/4 lbs. oats and bran. During the third month 434 lbs. skim-milk were fed along with 14 1/2 lbs. linseed meal, 8 lbs. oats and bran, 124 lbs. silage and roots (equal parts) and 31 lbs. of hay. At the end of the third month the calf weighed 192 lbs. At the end of the next 30 days the calf weighed 235 lbs., and during that time had consumed 469 lbs. skim-milk, 13 1/4 lbs. linseed meal, 11 1/2 lbs. oats and bran, and 30 lbs. hay. During the fifth month 600 lbs. skim-milk, 23 lbs. linseed meal, 20 lbs. oats and bran, and 62 lbs. hay were eaten, and the animal at this time weighed 300 lbs. At the end of the sixth month the calf weighed 372 lbs., and during the thirty days consumed 700 lbs. skim-milk, 43 lbs. bran and oats, 24 lbs. linseed meal, 65 lbs. of hay, and 80 lbs. of silage.

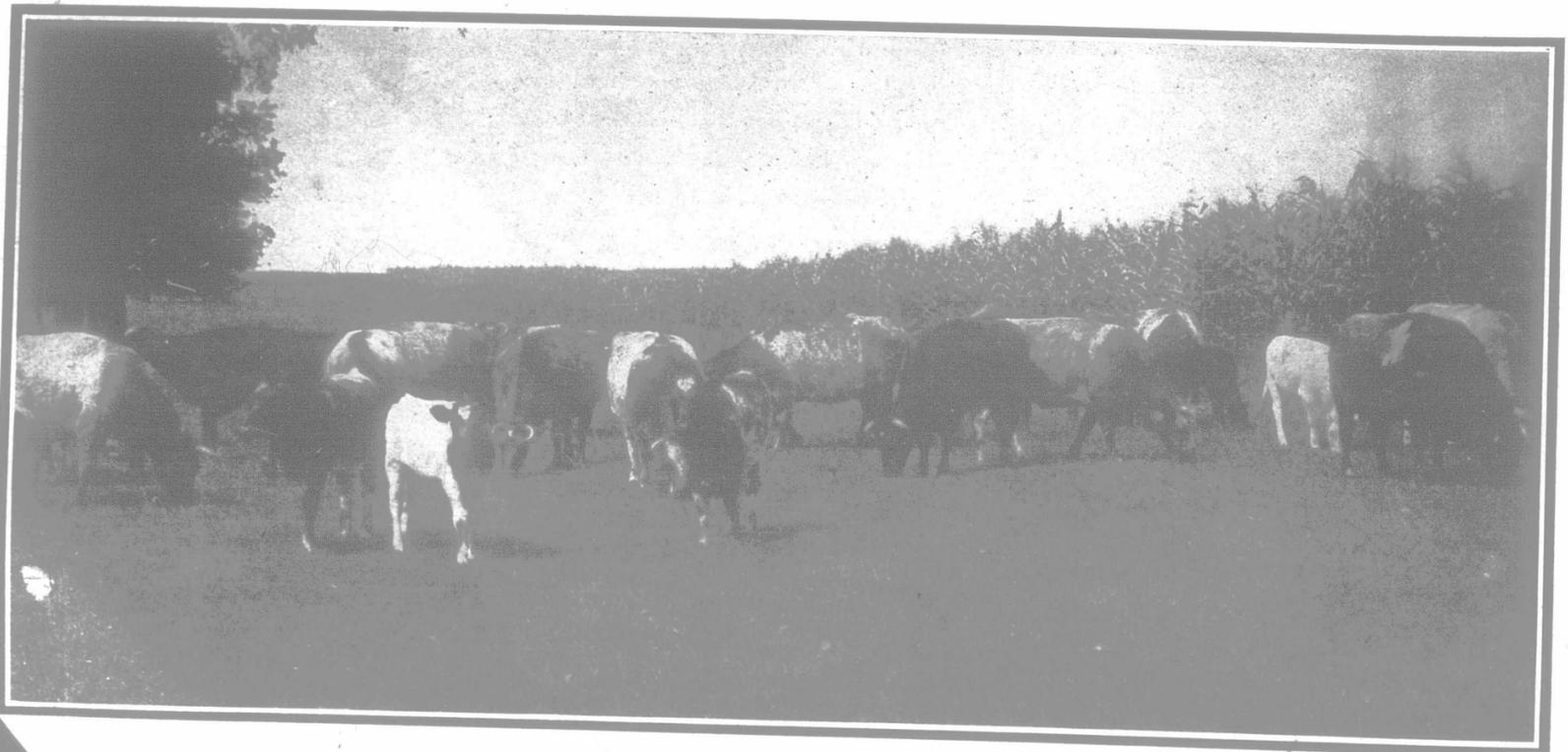
Throughout the six-months period the animal consumed 228 lbs. whole milk, 2,699 lbs. skim-milk, 85 3/4 lbs. linseed meal, 92 lbs. bran and oats, 204 lbs. roots and silage, and 188 lbs. of hay. It gained 287 lbs. or an average of 1 1/4 lbs. per day. At the present prices of these feed stuffs and roughages the cost would amount to approximately \$15.75, and if one wished to consider the labor expended on the rearing of the calf, \$2.60 would be a fair value to put on a man's time who is employed at \$35.00 per month.

While these items would not be duplicated by every one rearing calves, and the details would be observed to the letter by few, they may act as a guide to those who do observe the various changes in a calf's rations and desire, on a larger scale of operations, to follow some schedule.

Important Details in Feeding.

Milk fed to calves from the pail should be as near the temperature of that drawn from the cow as it is possible to get it. In hot summer weather the temperature might be lowered without bad results, but it should be kept uniform. After the calves get a start, cold milk at every feed is better than hot and cold alternately at different feeds. Scald the pails after every feeding, and, in summer, leave them exposed to the sun. Scald, frequently, all utensils and vessels with which the milk may come in contact. If possible have feeding stalls constructed so the calves may be fastened one in each stall, and be obliged to drink from separate vessels. Two or three calves with their heads in one pail is a bad practice. Keep them in their stalls or stanchions until they have eaten some meal or roughage and will not suck the extremities of their mates when liberated, for this is a pernicious habit with calves.

After about three weeks the young calf will begin to pick over good hay or grass, and, if encouraged,



Raising Calves in Nature's Own Way.

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will eat meal or grain from a box. Do not feed meal with the drink ration. It is swallowed quickly and is liable to induce digestive troubles. After the milk has been drunk, throw a little finely-ground oats and bran in the bottom of the pail or rub it on the calf's muzzle. A taste for grain will be acquired in this way. Next place a small box within easy reach of the calf, and in it keep some ground oats and bran. This will soon be devoured and relished. Change the hay or grass frequently, for young cattle do not care for fodder which has been blown or breathed on. Supply plenty of fresh water even when milk is being fed twice a day. Some herdsmen make the mistake of withholding water, thinking the milk is sufficient. During hot weather calves will thrive better in a darkened shed or stable with good clover hay or cut grass, than out in the sun fighting flies. If convenient they could be allowed out at night.

Scours is one of the worst scourges of the calf pen. This trouble can often be corrected by scalding the milk or feeding lime water up to one-third the total allowance at each feed. It is easily made. Slake some lump lime with water and the clear liquid standing at the top of the vessel is the preparation required. So long as it is a saturated solution the lime water will always be the same strength, for a quantity of water at a uniform temperature will combine with the same amount of lime on every occasion. Do not stir the sediment in the bottom when taking out the lime water, for the clear liquid at the top contains the desired properties. Another recipe often recommended is as follows: powdered chalk, 2 ounces; powdered catechu, 1 ounce; ginger, ½ ounce; opium, 2 drams; peppermint water, 1 pint. Give a tablespoonful night and morning. It is well to first mildly purge the calf with 2 ounces of castor oil, shaken up in some milk, and after this has acted give the cordial as recommended. There is usually some cause for the disease; either too much milk, dirty utensils, or hot and cold drinks fed alternately. First remove the cause.

Contagious or white scours is a more difficult disease to treat. It is infectious, and greater precautions must be exercised in cleaning and disinfecting the stable. As a remedy give the castor oil as previously advised. Mix one-half ounce of formalin with 15½ ounces of distilled or freshly-boiled water, and keep in an amber-colored bottle to prevent chemical changes. The dose consists of 1 teaspoonful of the mixture per pound of milk, for a young calf.

Meal Rations.

Whole milk contains 1 part of protein to 4.4 parts of carbohydrates and fats, while skim-milk contains 1 part of protein to 2.1 parts of carbohydrates and fats. It is evident that skim-milk requires a supplement not rich in protein, but in those elements lost in the skimming. This partly explains how shelled corn, oats and bran have given such excellent results when fed with skim-milk. Some linseed meal is important at first to supply fats or oils similar in their effects to those of the butter-fat. Outside of that requirement grains rich in carbohydrates will give good results. The following lists compiled by Otis, of the Kansas Station, will assist farmers in selecting rations for skim-milk calves:

1. A mixture of 5 lbs. oats, 3 lbs. bran, 1 lb. corn meal, and 1 lb. linseed meal.
2. Whole oats, ground barley and bran.
3. Ground barley with bran or shelled corn.
4. A mixture of 20 lbs. corn meal, 20 lbs. oatmeal, 20 lbs. oil meal, 10 lbs. blood meal, and .5 lbs. bone meal, changed to corn, oats and bran when the calf is 3 months old.
5. Whole oats and corn chop, the latter gradually replaced by shelled corn in 4 to 6 weeks.

Among the dairymen in the United States a mixture of equal parts whole oats and wheat bran is popular, as is a mixture of 5 parts oats, 3 parts bran, 1 part linseed meal and 1 part corn meal.

It is generally recommended that cottonseed meal should not be fed to very young calves. However, stockmen should not regret this, for they have an extended list from which to choose. After the calf has been taught to eat the concentrates readily from a box, feed only what will be consumed at one time. At 6 weeks of age a calf will eat in the neighborhood of ½ lb. of concentrates daily; at 2 months, about 1 lb.; and at 3 months about 2 lbs.

Silage will be taken by calves when 2 months old and sometimes younger, and when it is from well-matured corn and free from mold, it is very good roughage. Roots also are excellent and should be supplied as soon as they will be eaten.

Whey Calves.

Dairymen who send whole milk to the cheese factory find it difficult to raise the calves. On one occasion we observed a bunch of whey-fed calves on a Lambton County farm, that were as thrifty as many skim-milk calves. This dairyman's methods were as follows:

When three weeks old the calf was started on whey, getting 4 lbs. whole milk and 5 lbs. whey. The latter was gradually increased and the milk lessened. A tablespoonful of calf meal, made into a porridge, was added to each feed. This was gradually increased to a teacupful twice a day, and 10 lbs. of whey. When the calves were 6 or 8 weeks old the meal was dropped and finely-ground oats were added. The calves took the whey readily and did not suffer from scours.

All the rules regarding cleanliness should be regarded in feeding whey to calves. The material

should be pasteurized at the factory and conveyed in thoroughly scalded vessels. It is not a protein-rich feed like skim-milk, but very poor in nitrogenous matter. Consequently such concentrates as wheat bran, oil-cake meal, linseed meal and ground oats can profitably be fed with it.

Baby Beef From Dairy Cows.

Some dairymen have attached a second string to their bow by using a bull of some beef breed and turning the calves off as baby beef. While the herd cannot be increased or renewed from the progeny of such a mating, the cash returns in most cases are gratifying. Where labor is scarce two calves are reared by one cow. This saves considerable milking, and when a liberal grain ration is fed the young fellows are turned off at 12 to 16 months old, weighing around 800 to 900 pounds. Usually an Aberdeen-Angus bull is used, and the proposition is worth some consideration by those who desire to reduce the labor connected with their herds.

Remove the Horns.

The writer cannot bring this article to a close without emphasizing the wisdom of removing the horns from all grade calves when it can be done so easily and with little pain to the animal. Horns are no longer needed on the milking herd, and when attached to feeding steers they are a source of injury to the animals, and danger to the attendant. A stick of caustic potash will eliminate these unnecessary appendages and prevent much subsequent injury and depreciation in the value of the stock.

THE FARM.

What the Consolidated School is Doing in Manitoba.

In Canada there is only one province in which to make a study of consolidated schools, that province is Manitoba. When Professor Robertson first introduced the idea of consolidated schools into Canada, it was given considerable publicity in Eastern Canada, and assistance was given in certain areas to inaugurate this system, but it has remained for Manitoba to carry out any feasible plan and spend propaganda work towards the inauguration of consolidated schools, and the furthering of teaching in these schools to that stage where it will be far in advance of the rural one-room school. With 68 consolidated schools Manitoba is most advanced in this organization.

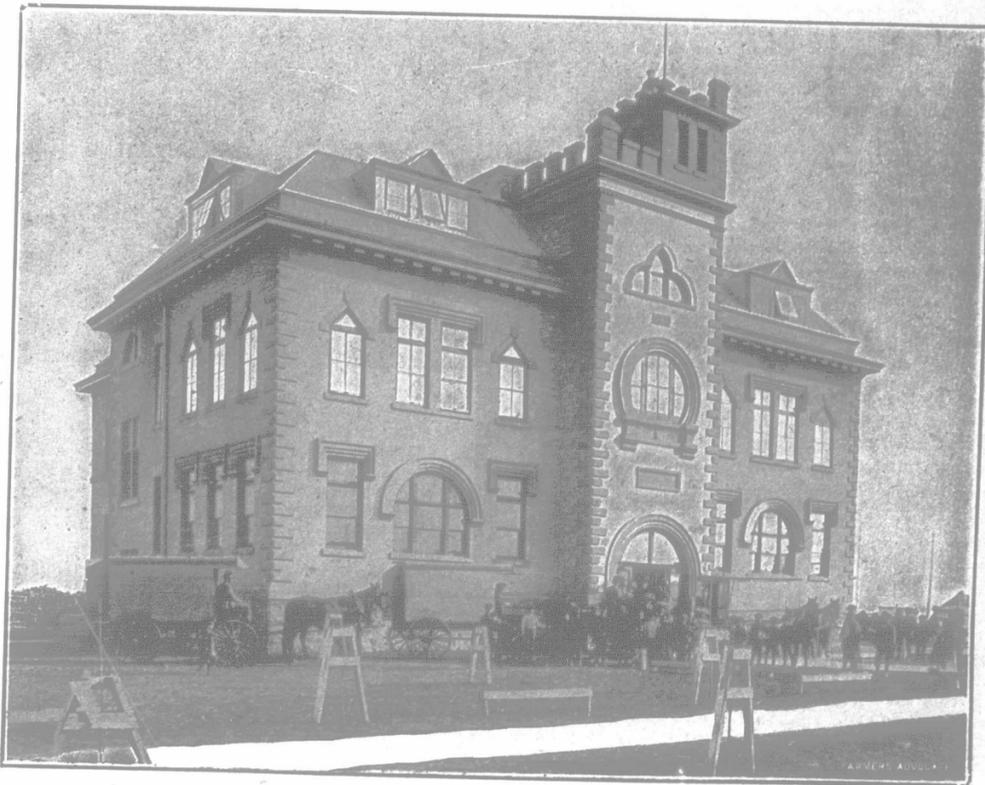
But can consolidation be said to be an advance in rural education? Some say not. Are the country children who pass through the consolidated schools better educated than those that go through the one-room rural schools? Is the teaching of a higher standard? Are the boys and the girls, aside from the studies of the regular curriculum, better prepared as future citizens than they would be in the rural school? These are questions that must be answered in the affirmative if the consolidated school is more efficient than the rural school, and can claim the support of the people. That the consolidated school is more efficient is the claim of the men who are advocating the further introduction of the consolidated school, not only in Manitoba but in other provinces. It

is more efficient, and here is another point that may as well be settled, it is more expensive. Where taxes for a quarter section (160 acres) for the rural school would be say, \$25.00, under consolidation they will probably advance to about \$35.00. But that increase in cost stands for a better equipped school, better conditions, sanitary and otherwise, for the children while they are at school; better teachers, better paid teachers, a higher standard of teaching, and the introduction of other subjects, such as manual training, domestic science, and most important, agriculture. These are the reasons given as making the consolidated school worth the extra taxes. The claim for consolidation is not one of economy, it is one of a higher standard of education for country children.

To get first-hand information and place it before the readers of "The Farmer's Advocate," three consolidated schools were visited, Teulon, Gunton and Balmoral, each adjoining the other, and all so situated that they represent average conditions of a well-settled farming district.

Teulon Consolidated School was established six years ago as a two-room school. In that time it has grown to a six-room school, with an attendance of two hundred and thirty pupils. Of these fifty come to the school in vans, while about fifty are boarding in the village and attending the high school. Three vans are operated at an average cost of \$375.00 per year to bring in these fifty children from outside areas. To form this consolidated school about two-and-a-half rural school districts were included. Six teachers are employed, three in the public and three in the high school, holding three first, two second and one third-class certificates under salaries ranging from \$650.00 to \$1,500.00. Besides the regular curriculum there is taken up manual training, including wood work and iron work (the boys built their own blacksmith shop, and very frequently bring iron work from home to be repaired). In domestic science the girls have a regular class during the winter months. Agriculture is studied and examinations passed that will give first year's standing at the agricultural college. Incidentally it might be stated that the agricultural work includes the testing of seed grain for farmers in the district. A year ago a car load of seed oats was brought into the district. It was tested out by the school and found to germinate only about 30 per cent., and because of these tests the seed was rejected, and the farmers interested practically saved the loss of an oat crop. Milk from different herds is also tested, over two hundred tests being made in the last year.

Organized drill and play and the operation of a school garden complete the features of the extra studies or work taken up by the students, and it might be stated that all the time for these studies, and the work in the school, is taken from the school hours. Yet the scholars are reaching entrance at an average age of twelve, and writing on entrance examinations at thirteen. Further, out of fifty-nine students writing on entrance and high-school examinations, fifty-eight passed, a most remarkable standard. There is also organized through the school a boys' and girls' club. It has already held a picnic this year. The members of the club are raising poultry potatoes and corn, and this fall will hold an exhibition of poultry, potatoes, corn, manual training work, baking, canning and sewing. All this is being done in a school where fifty of the children are of foreign extraction, but where the whole atmosphere of the school



Daulphin Consolidated School.

is harmonious and bright. The Principal of the school, Mr. Cummings, stated that with the introduction of the school garden, agriculture, domestic science, manual training and organized play, there came a decidedly better tone in the school, and a keener interest in the school work. In other words, the children were brighter, keener students who should grow into brighter, keener men and women. This is what the rate-payers of Teulon Consolidated School are getting in return for the increased taxes they are paying.

Gunton Consolidated School is in the second year of operation. It includes two-and-a-half former rural districts, and has an attendance of ninety-eight pupils, forty-nine of whom come in two vans. There are three rooms with teachers holding one first and two second-class certificates, and salaries of from \$600.00 to \$1,000. This school has not as yet had time to incorporate all the studies undertaken at Teulon. Besides the regular curriculum, manual training is taken up (it might be stated that the boys have built their own work bench), and the operation of a school garden. The garden is already an actuality with its scores of plots. It has not been entirely brought thoroughly under cultivation. Domestic science and agriculture have not as yet been included in the studies, but during the winter months the children prepare a hot lunch for themselves, and in agriculture the regular text book is augmented by a study from bulletins and agricultural papers. At this school 50 per cent. of the children come through the entrance, writing entrance examinations at an average of fourteen. The teacher, Mr. McGowan, stated that these added studies and work, if it may be called such, give a greater interest in all school studies, and introduce that feature which might be called brightness among the students. Generally, he also added, he found the people strongly in sympathy with the school work, and with the introduction of these progressive ideas.

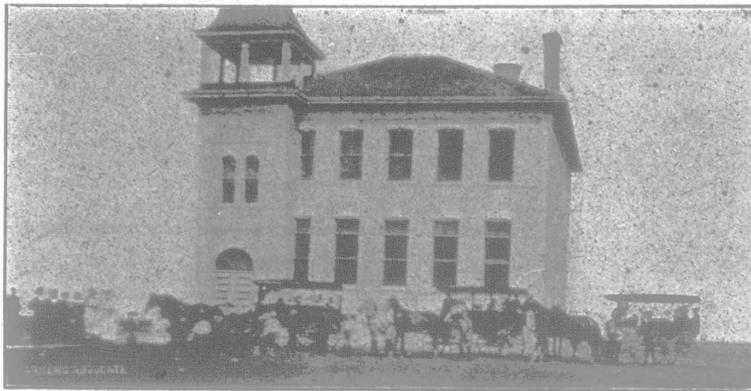
Balmoral Consolidated School has been in operation for two years. It includes one entire rural school district, and parts of four others. It is the most rural consolidated school of the three. Of the one-hundred-and-twenty pupils enrolled, ninety-five are brought to the school in five vans. Only four vans are operated during the summer months, one having only a short route is taken off, and the children walk, the distance being comparatively short. The average cost of operating these vans is \$575.00. The taxes since consolidation have increased from \$30.00 to \$45.00 per quarter section. Ninety per cent. of the people are strongly in favor of consolidation. There are four teachers, holding two first, one second and one third-class certificates. The salaries range from \$600.00 to \$1,200.00. Besides the studies in the regular curriculum, manual training and school garden, and organized play are features. Agriculture is also taught by use of bulletins, besides in the regular text book. This school has not as yet had time to introduce further features. The school garden, operated this year for the first time, is claiming the interest of the children, and as in the case of the other two schools, is given credit by the teacher, Mr. Duncan, for inducing a greater interest among the children in all studies in the school. Pupils reach their entrance examinations at an average of fourteen. Incidentally it might be stated here that at the time of the writer's visit to the school several pupils from rural schools were in writing their examinations, and the average age in this case would range from fifteen to eighteen years, indicating greater efficiency among the children of the consolidated school.

In this discussion it was previously stated that the cost of the consolidated school was higher than for the rural school. We also stated that they were better equipped schools, with better conditions, sanitary and otherwise, better teachers, better paid teachers with a higher standard of teaching. Let us see what has happened in these three schools we have reviewed. All of these schools have the very best equipment for teaching the regular curriculum; all of these schools have modern manual training equipment. In addition Teulon has a blacksmith shop. All of these schools have school gardens. They are all heated with furnaces or steam, and are always comfortable. The children have pure drinking water at all times, and other conditions about the school are most sanitary. The average training of the teachers is high, the salaries are above the average, much above the average of the rural teacher. The review of subjects taken up indicates the high standard of teaching, as does also the age at which the children are writing their examinations for entrance, and the percentage passing.

There is another feature in connection with consolidation, and it is a most important feature. We spoke of the interest that was taken by the children in their work. This was given by the teachers, but the feature that is still more important is the interest taken by the teachers in the work of the school. These schools are entirely different from anything that we of the country have been used to. The work taken up is most interesting; new work is being engaged in. The principal and teachers in the schools are in a position where they can display individual talent in their work, and they are doing so, and back of all this is the fact that they are receiving fair salaries, and from their initiative work and the building up of a high standard in their schools, they may hope to see these salaries increased. These are the reasons for increased interest by the teaching staff, and it is this interest that is sending a large number of these teaching staffs to take special courses during their

summer holidays. The consolidated school is placing ideals of life work before the teacher rather than the rural teacher using the country school as a step to more profitable occupations.

Perhaps the most important factor that will prove an obstacle towards incorporating consolidated schools is the increased cost of operation of the consolidated school over the rural school, a cost that will likely average from \$5.00 to \$10.00 per quarter section (160 acres). The figures given for the Balmoral school are unusually high. Roblin Consolidated School, the largest in Manitoba, operating six vans, had a tax of \$12.00 per quarter section in 1913. We rather expect, however, to see this cost increased, as the people find the value of the better-equipped school for the training of the children. There is, however, a return for this increased cost that can be very readily seen. What information we were able to gather indicates that a much larger percentage of children attending the consolidated school write their entrance than those attending the rural school. Those who do write reach their entrance two or



Sperling Consolidated School.

three years before the children in the rural school. This means that if a boy is to be called from school at fourteen years of age he will have passed the entrance if he is a consolidated school boy. If he is not, then he has not yet reached the entrance, and, in fact, is a year or more from it. If he is attending the consolidated school he has a knowledge of manual training, wood work, and perhaps blacksmithing, the beginnings of agriculture and of other sciences that will be of immense value to him through life, as well as making him a more efficient citizen. Together with these he has the broadening of life that comes from the association of large numbers of other boys, as will be the case of the consolidated school in the class room, manual training room and play ground. This boy has had an education that will fit him for almost any service in life, an education much above the average. Furthermore, he will have reached that standard of education that at any future time he can continue studies to further fit him for farming or other vocations.

The consolidated school, it must be further noted, has fitted this boy so that he has reached this stand-



School Garden Work at Teulon.

ing two years before the boy in the rural school, and has these two years to give back to the farm, if wished, while the other boy is still at school. Because of this the cost of education in the consolidated school is relatively little above that of the rural school.

Even yet consolidation in Manitoba is comparatively new. Beginning at Holland and Virden in 1906 it has increased to sixty-eight consolidated schools this year with more in formation, but because these consolidated schools are in groups all over the province, the districts are not the best planned to be most economical or give greatest service to the people of the community, as a community center as well as an educational institution. This is seen in plan of Balmoral School. The consolidated school districts are formed as the people ask for them, and it is entirely optional whether the district be formed or not. It is very noticeable that where one district is formed those

about it are soon afterwards organized, but when the whole province becomes organized into consolidated schools it will be possible to make many changes in the plan of the different districts, and map them out in such a way as to not only make them more economical of operation, but of greatest service to the people.

Minnesota Prison Farm.

In view of progress in prison reform being made in Canada, readers will be interested to know what has been accomplished in the State of Minnesota. The prison itself occupies twenty-two acres overlooking the St. Croix river. Outside is the farm of 763 acres worked almost entirely by prisoners, who get from it milk, eggs, and vegetables for their own mess hall. The prisoners publish a newspaper, "The Mirror," founded in 1887, have a night school conducted by Prof. W. H. Hollands, and a corps of teachers chosen from the inmates, and had an average attendance in 1914-15 of 161. The prison boasts a library of 7,000 volumes, a brass band, an orchestra and a branch of the Chautauqua society. In celebration of the Shakespeare Tercentenary the society gave a highly commendable performance of Richard Third, says a correspondent of the New York Outlook. The principal industries of the prison are the manufacture of binder twine and farm machinery. The prison is said to be one of the greatest revenue-producing public institutions in the world. It is more than self-supporting, last year showing a net profit of about \$280,000, while \$74,627.55 was paid out for prison labor, inmates earning all the way up to \$1.50 per day, which money is absolutely their own and is either put away for them in trust until released or is sent for the maintenance of relatives or family, that may be dependent upon them. Prisoners are graded for good conduct and for paroling. Since 1894, when the system was inaugurated 1,655 prisoners have been released on parole. Only twenty per cent of them violated their agreements and had to come back. In other words 80 per cent of the prisoners under the enlightened system that the prison is not a punitive place but an institution in which to reform, made good.

War and the Weather.

In answer to a query as to whether the extraordinary weather in any way has been brought about by the cannonading in Europe, the meteorological office at Toronto has issued the following statement:

"Historical records enable the meteorologist to draw a rainfall curve in Asia Minor back 3,000 years, with probably some degree of accuracy. More recently the study of the growth of the yellow pine of Arizona and the sequoia tree of California, as evidenced by their rings, has also enabled officers of the Carnegie Institute to draw a rainfall curve for 3,000 years. The curves agree fairly well and show that the climate has been pulsatory throughout this long term, with periods of rainy seasons and periods of relatively dry seasons. Both curves indicate that the one thousand years before Christ, were much wetter than at later periods.

"At the beginning of the nineteenth century occurred many cold, wet summers. The years 1812 and 1816 were especially marked by a great depression of temperature in Canada and the northern United States; and 1816 was afterwards known as the year without a summer.

"Many summers in the forties were very cold and wet, also in the sixties, and again in the early eighties.

"In Toronto since April 1 there has been a slightly greater rainfall than in any corresponding period on record, but there have been at least ten other three-month periods—June to August, and July to September—with a much greater rainfall.

"There is not the slightest reason to suppose that the cannonading in Europe has any appreciable effect. I believe it to be negligible in the gigantic workings of nature. The excessive rain has been only in Ontario and Western Quebec. Eastern Quebec and the Maritime Provinces have been nearly average, and Newfoundland has been dry, and for two months the weather there has been exceptionally fine and bright.

"The variations in rainfall from year to year through long periods are connected with the general circulation

but when the consolidated changes in map them out them more service to

of the earth's atmosphere, which is without doubt affected by changes in solar radiation, which is also variable. Professor Abbott of Mount Wilson Observatory, has shown that the sun is a variable star, changing its output of energy by at least one-seventh of the whole. We do not know what the changes have been in bygone times.

"The sequence probably is a solar change affecting first the equatorial regions, and leading to changes in the strength of the trade winds and their ocean currents, and a little later the wind circulation and cyclonic formations of the middle and higher latitudes. "We see no reason why there should not soon be a change to normal conditions."

Taxation of Forest Land.

EDITOR "THE FARMER'S ADVOCATE":

One of your correspondents recently called attention to the necessity for legislation relieving wooded areas from taxation. I have had some correspondence with the Department on that subject, and the present law allows but does not compel such areas to be exempt; but it devolves upon the owner to appear before the council each year in order to have the tax remitted.

The existence of wooded areas among arable land is such an important item that one can hardly understand how a government could overlook the necessity for them to the extent that our government has done. Certainly there should be legislation in existence relieving forested areas from taxation absolutely, and it would be worthy of "The Farmer's Advocate" to take this matter up and push it through to a successful conclusion. I understand that such legislation exists in other countries, but Ontario, as usual, is behind the times in legislative matters. Middlesex Co., Ont. W. E. SAUNDERS.

More Words for Sweet Clover.

EDITOR "THE FARMER'S ADVOCATE":

Several years ago, I wrote a letter to you re sweet clover as a forage plant, which in due time appeared in your excellent Journal with upwards of a column of editorial comment, which took effect, and many other Journals in turn, had correspondents stating their views on this supposed weed, some in favor others opposed. However, that letter and your comment made people think. It was discussed at the Farmers' Institute Meetings, experimental farms experimented on it, and to-day the seed can be purchased from our seedsmen; many farmers have sown it as they had sown alfalfa and red clover in former years, and the crop everywhere is prodigious, and the "wise-acres" with long faces exclaim: "I told you so," every place will be polluted with it, and it will smother every other crop.

It, no doubt, will grow on comparatively barren land—if not pastured—and seed itself year after year, and give to the soil nitrogenous matter from the numerous nodules it so lavishly develops, and as for polluting the land, the very opposite will result, for it is a biennial and must be sown regularly where the crop is wanted for green feed or for silage. It will not grow on well-cultivated land as a weed, and the plant dies the second year. On a property in this town, where everything has been saturated with salt, even upon the banks of accumulated scale from the salt pans it grows, and also on bare sand dunes it is a sight to look upon. I doubt if any other crop than corn will give as much material for silage, but it should never be allowed to become woody to have best results. As it grows wild, we find that it will

grow from 5 to 7 or eight feet in height and the main stalk even an inch or more in diameter, but this, as far as I can learn is too woody for hay, but is grand pasture for bees.

Sow thickly, cut very early. It may be cut in Ontario from the beginning to the middle of June, and before it is in bloom. Where there is a good catch, neither charlock nor wild oats can get ahead of it, but like many other good plants, the intelligent farmer will soon learn how to handle it.

Bruce Co., Ont.

WM. WELSH.

Note.—We have not heard of any of our readers ensiling sweet clover. If any have done so we would be pleased to publish an account of their results. Never let the plant get woody.—Editor.

Bean Disease.

EDITOR "THE FARMER'S ADVOCATE":

Of the three or four fungous diseases of field and garden beans, by far the most destructive in this part of Ontario so far as I have observed is the one popularly known as pod-spot or anthracnose. A few weeks ago,



Pod infected with bean anthracnose; seeds adjacent to the large spots are pretty sure to be inoculated with the disease.

in a seed-store, I noticed a box of "golden-wax" beans in which one could see almost at a glance that some of them had come out of spotted pods. I took five cents worth to experiment with. The little packet



A Farm Blacksmith and Repair Shop.

This little shop pays good interest on the money invested in it by H. M. Rolph, a York Co., Ont., farmer.

contained four beans affected very obviously, and eleven others that were set aside only after careful examination. These and about as many more that seemed perfect were planted. They are now, at the time of writing, in the second leaf. Twelve of the former class show the disease, one is apparently free, two did not come up. Two of those supposed to have been free are diseased; the rest of them do not show any signs of the disease yet.

In these seedings the disease has proceeded along the fibro-vascular tissues. In the stems, petioles,

and on the under side of the leaf-veins minute discolorations are apparent. Sections made through these little spots, viewed under the microscope, reveal swarms of colorless, oblong spores about seven thousandths of an inch long. These spores are the means of spreading the disease to unaffected plants.

It is a pretty safe assertion that every planter of beans from the stock of seed referred to will suffer more or less of a failure of crop. It is true that early, frequent and thorough spraying with Bordeaux will control the spread of the disease but it cannot arrest it in the plants inoculated in the seed. There is legislative protection against the distribution and sale of seeds badly corrupted with noxious weed-seeds. There is equally good reason for prohibiting the sale of seed so obviously affected with a contagious disease as anthracnose beans. The seed-buyer might be fairly safeguarded if it were practicable to offer seed beans for sale in the pod, so easy is it to detect the presence of the disease there. But it is a matter for experiment to determine whether an affected seed can or ever does come out of a spotted pod. Middlesex Co., Ont. JOHN DEARNESS.

The System Must Go.

EDITOR "THE FARMER'S ADVOCATE":

I believe the "Studies in Political Economy," which have appeared in the columns of your paper, are worthy of consideration and comment on the part of your readers. I must say that I agree with Mr. Good, the strong point which he has brought out in a forceful way is, that the fundamental principles of a democratic government rest with government ownership of all industries and the abolition of all rent with the exception of ground rent, or in other words, that those things on which the people in common depend should belong to the people in common—the only means whereby we can ever have a government of the people, for the people, and by the people. But this can never be brought about so long as the people are willing that the "almighty dollar" shall be a power within itself. Abraham Lincoln once said that it would be a worthy object of any government to try to get the laborer as near as possible the full value of his labor. What Abraham Lincoln considered a worthy object has been completely ignored by every government. It is the unearned increment that creates social parasites, and social parasites are a burden to humanity. It is sometimes hard to decide which is the greater burden of the two, the millionaire or the beggar. They are both a product of the present system, and with the abolition of the system they will both disappear. Compton Co., Que. SUBSCRIBER.

Through agents and otherwise Japanese manufacturers are now pushing an aggressive campaign for the sale of their wares in America.

Canada's Young Farmers and Future Leaders.

Raising a Calf for a Dairy Cow.

EDITOR "THE FARMER'S ADVOCATE":

I will tell what I have done in the way of experimenting in feeding a calf. We had a Jersey cow which had one quarter of her udder go bad at the time the calf I fed was born. We thought it not advisable to use her milk, but thought it all right for the calf. We thought her udder would get somewhat better if the calf was let suck her. We let her nurse it about two months, when we took it away, and I had full charge of looking after her. I put her in an orchard where there were no other calves or any live stock. I fed her a handful of oats three times a day. She got all the water she wanted, as she would not drink milk. She had lots of good grass. The other calves, which had already been on grass nearly a month were fed skim-milk and flaxseed meal, which was boiled. These were mixed with some water. This was the only feed and drink they got. They got it three times a day. They had plenty of grass and shade in another orchard, separate from where my calf was. My calf grew to be of the dairy type cow, while the other calves grew to be of the beef type. The next year, after being stabled in a large pen and fed silage and chop together with hay and straw in the winter, they, my heifer included, were allowed to run in a pasture field all summer. As I said before the calves fed on meal and milk, grew to be of the beef type, while mine grew

to be of the dairy type. This spring the calves fed on the milk and meal were sold as beef cattle. They were in perfect condition. My calf is now a young cow and gives a fine quantity of good, rich milk although she is only a little over two years old. This experiment shows the different feeds used, and also shows the different types of cattle produced by the feed.

WILLIE L. THOMPSON.

Middlesex Co., Ont.

[Note.—Do you not think, Willie, that the breeding of the calves might have had more to do with the type than did the feed? Editor.]

Sandy Advises Boys and Young Men to Think.

EDITOR "THE FARMER'S ADVOCATE":

I see ye are starting a new department in yer journal for "Canada's Young Farmers and Future Leaders." Na doot ye mean by this that oor farmers o' the risin' generation are tae be the leaders in developing the thought and life o' the country in the coming years, an' that we must look tae the farm for the bulk o' oor future supply o' brains. This may be right, for we ken that there's na better place for a start in life than in God's country where ilka thing seems tae be made for the purpose o' turnin' oot model specimens

o' humanity, wi' nane o' the unnatural condections that are connected wi' life in oor crowded cities.

But the trouble seems tae be that a time comes in his mental development when the young chap on the farm tak's it in his heed that he maun get aff the land an' gang tae toon gin he is ever gaein' tae mak' the maist o' himsel' an' rin ony chance o' becomin' a multi-millionaire. This inclination tae see somethin' o' the world is natural enouch, an' is a sign that a man has some energy an' ambition aboot him, but at the same time it has had the effect in the past o' buildin' up a' the ither institutions an' industries at the expense o' agriculture. What we want is some system whereby we can keep a fair share o' the maist energetic an' intelligent o' oor men on the farm. We need mair model farms that are rin by model farmers, tae act as object lessons for those wha canna' think or act for themselves wi'oot some incentive o' the kind. We need a higher standard o' living among oor farmers, an' there's na mair effectual way o' gettin' them up tae this standard than by example. Ye may send oot government orators tae lecture at Farmers' Institutes an' such like places, but its little effect they hae compared wi' that o' an up-to-date farmer, wha is makin' a success o' his business by means o' the latest an' maist scientific methods in crop-growing an' stock-raising. A business that arouses oor interest is the one that we're likely tae choose as oor life-wark, an' there's na mair interesting occupation on airth than farmin',

when once you get tae thoroughly understand it, an' then the reason for dacin' this or that.

I mind the time when I wis a young chap I had a great notion o' gaein' off tae the woods an' learnin' the lumber business. The idea o' warkin' like a slave a' simmer tae get eneuch tae winter on didna' appeal tae me. There wis over muckle o' the tread-mill about it. Sae I thoct I'd just try a change an' see gin I couldna' get hauld o' mair money for less wark than there seemed tae be on the farm. "What's the use o' livin'," says I tae masel', "gin a' ye get by it is a chance for mair wark?" I hadna' muckle idea at that time o' the pleasure that can be got out o' helpin' nature tae produce bigger crops an' better live stock than she can wi'oot yer help. My one idea wis tae get eneuch money tae enable me tae, sometime, live wi'oot warkin'. This heaven o' idleness seems tae be the height o' ambition for a good many people in the world an' I wis muckle like the rest. But I found out that the lumber business had its hard spots just like farmin', an' by the time I had seen a dozen or mair contractors an' jobbers go broke I had about come tae the conclusion that a chap wis about as safe frae starvation growin' his ain pork an' potatoes as at ony ither job goin'. Sae back I cam' tae the farm, an' here I am the noo, an' what's mair, I've learned eneuch tae be satisfied wi' its possibilities frae ony standpoint I tak' it. I've had no lack o' mental as weel as physical exercise an' that's what we need tae keep us frae gettin' rusty an' becomin' a burden tae oor friends. But the fact that we arena' likely tae rust out on the farm is na' reason why we should wear out. That's what has given farming the bad name it has in sae many places. Ower muckle wark is as bad as not eneuch, an' nature will punish us for gaein' tae one extreme as weel as the ither. The reason some men hae tae bring sae much muscle intae play is that they hae got out o' the habit o' usin' their brains. The auld saying, "let yer heid save yer heels" is as guid advice to-day as ever it wis. I hae juist been readin' about a couple o' farmers wha are an illustration o' what I am tryin' tae point out. The first o' these chaps had seventy dollars left tae him by an uncle and the notion struck him that gin he wad pit this money in the bank an' gae an' wark for some ither farmer, he wad, in time hae eneuch tae buy a farm o' his ain. Sae he hired out for about twenty dollars a month an' his board, an' for the next eight years his boss got the benefit of all the muscle he could exercise. In ither words his labor wis worth about fifty dollars a month, of which his employer got thirty. He got his farm in the end, but the best years o' his life were given tae another.

The ither young man in the story had thirty dollars when he left home, but he had no notion o' puttin' it in the bank an' gaein' tae wark for someone else. He made a part payment on a team of horses an' outfit an' went West an' took up some o' the free Government land that wis goin' at the time. Later on he bought mair, an' inside twelve years he wis worth fifty thousand dollars. His wis a case o' head wark against the ither fellow's main strength an' ignorance an' he beat him by about forty thousand dollars.

Noo the point is that gin the farmers o' this country are tae be her "future leaders," as ye say, it willna' be by lettin' some ither class dae the thinkin'. Manual labor is a'richt in its place, but ower muckle o' it interferes wi' the proper action o' the brain. Ye canna' think tae advantage gin ye're a' the time half played out, an' ye'll come tae be, through time like that chap

they call "The Man with the Hoe." The poet tells us 'he wis "stolid an' stunned, a brither tae the ox." Ye canna' mak' leaders oot o' material like that. It's a'richt tae earn oor bread by the sweat o' oor brow, as we are tauld we must dae, but we need mair than bread in this world, an' gin we gae about it in the right way we can get these ither things wi'oot sweatin'. There's lots o' guid men doing it.

SANDY FRASER.

A Pig That Made a Profitable Hog.

EDITOR "THE FARMER'S ADVOCATE":

Last year my father bought some pigs. I asked him for one. That night he said I could have one for \$3, and he would feed it with the rest. So we put them in a warm spot, and fed them warm milk and chop. They were so small that they would go in a box 2 by 3 feet, but they soon gained up and were big fellows. They were seven weeks old when we got them. When they were two weeks older they had gained about 20 lbs. each. I always fed my pig and then I fed the rest of them. There were five, and my pig was the third largest. He ate a lot of feed.

My pig was thin in the hair, and curly, long and broad and wide in the shoulders, short in the legs and with a short nose and short ears.

In the early part of the spring I got about five bushels of wheat at 75 cents a bushel and fed it to him. That cost \$3.75. When three months old he weighed 90 lbs.; at four months 130 lbs.; at five months 170 lbs.; at six months 200 lbs.; and at six and a half 220 lbs. Then I got 4 bushels of wheat at 75 cents or \$3, and 3 bushels of oats at 50 cents or \$1.50. He was going ahead all the time. The pig made about \$2 a week for me. I got about one dollar's worth more feed after this, and when the pig was about seven months old it weighed 250 lbs. I kept on feeding till my father sold his pigs. His were about 10 lbs. heavier than mine, but when sold my pig was as heavy as his. I sold about \$3 worth of feed back to him. My gain was large at first. My pig cost—

Wheat, 5 bus. at 75 cents.....	\$3.75
Price paid for pig.....	3.00
Wheat and oats.....	4.50
Other feed.....	1.00
Total.....	\$12.25
Total sold after.....	3.00
Total expense.....	\$9.25

The total selling price 11¼ by 2½ or \$28.50. Pigs were eleven dollars and a quarter per cwt. when I sold, so my net gain was \$28.50—\$9.25 or \$19.25.

I put my money in the bank, and I am going to spend it on more pigs, and I will see a still bigger gain. I have a sow and I get half of the pigs for my own, and I will feed them the same as I did this fellow. I never had a pig before, but I got so anxious to have one that I bought the one described and fed it myself, and out of my own money too. This is the best way to make money on the farm. You can make more in a year out of pigs than you can out of cattle. York Co., Ont. GEO. H. HARMAN.

How a Shorthorn Bull was Fitted.

EDITOR "THE FARMER'S ADVOCATE":

I am going to describe how I fitted a young Shorthorn bull for sale. The bull was born in January, 1915. He ran with his dam all that winter, and, as he grew older, was taught to eat a few mangels or turnips and whole oats and hay. This was done till they were turned out in the spring when he was still allowed to go with the dam, and stayed out with her till she went dry. Then in the fall, when it turned cold, he was brought inside, but not fed heavily till the following January, when it was decided he should be fitted for the sale of Shorthorns, which was to take place in Guelph on March 1, 1916.

He was weighed before we started the special fitting, and he tipped the scales at 960 lbs. Then, on January 30, he weighed 997 lbs.; on February 6, 1,035 lbs.; on February 13, 1,060 lbs.; on February 20, 1,085 lbs.; and on February 27, 1,110 lbs., his last weight before the sale. In five weeks he made a gain of 150 lbs. His feed during these five weeks was per day: 1 bushel of turnips, oat chop gradually increased from 10 to 12 quarts a day, and oil cake gradually increased from 3 to 4½ lbs., with a few ears of corn thrown in, and all the hay he would clean up at each feeding. He was given all the water he could drink, and a good application of the curry-comb and brush added. During the time of feeding he was taught to lead with a halter, and at the end of the five weeks would lead better than most colts of his age. He was loaded on the train February 28, and taken to Guelph and was sold on March 1 for \$115.

Brant Co., Ont.

GEORGE W. HAAS, JR.

How a Boy Fed Three Hogs.

EDITOR "THE FARMER'S ADVOCATE":

I fed three Yorkshire hogs for the Hog Feeding Competition last year. I gave them a good-sized pen, well disinfected, exercised them when possible, removed the litter daily, and I also made a practice of feeding the same time each day, which I think is necessary. Their feed consisted of skim-milk and shorts, for a couple of weeks, then I added green clover for a noon feed, till the end of the twelfth week. The remainder of the time they were fed oat and barley chop, three times daily.

These hogs received 3,196 lbs. of skim-milk in 224 feeds, which is about 2½ lbs. skim-milk a feed, gradually increased to 5½ lbs. a hog each feed. They got 688 lbs. of grain, running from 1¼ to 2 ¾ lbs. to each hog a meal. They also consumed 170 lbs. of green feed. When I started to feed my hogs their weight was 25 lbs. each. When finished they weighed 161, 166 and 166½ lbs. respectively. They kept an even weight till the last couple of weeks. Their gain was 418½ lbs. When they were fed 6 lbs. grain per hog daily, they each put on 3 lbs. gain daily. If I cut off the new feed they only put on six-sevenths of a pound gain per hog daily.

The value of feed per hog was \$6.30, adding to this, \$4, their value at 6 weeks old per hog, made a total cost of \$10.30 per hog at the end of the 22 weeks. They were valued at 9c. a lb., which brought \$14.80, thus showing a profit of \$4.50 each.

Waterloo Co., Ont.

CECIL BARBOUR.

Automobiles, Farm Machinery and Farm Motors.

Changing Gears.

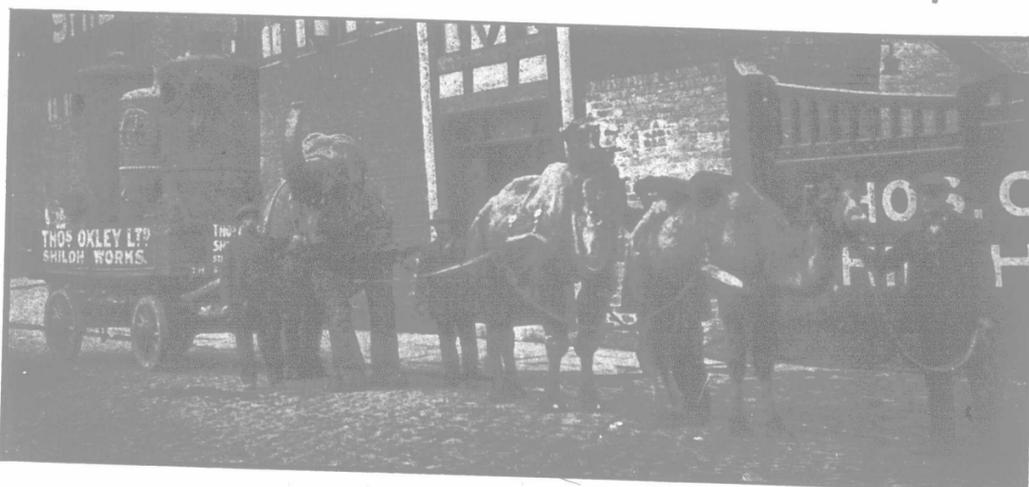
A great many car buyers are occasionally disappointed at the outset with their purchases, because they find considerable difficulty in changing gears. It is not long, however, until practice makes them perfect and they become so accustomed to the shifting of the gears, that the operation is practically done unconsciously. It is well for beginners to remember that when going into low gear, no particular strength is required in handling the lever. The movement is done with more feeling than strength and in passing from first to second, the action should be firm and quick. Speed and fixity of purpose also apply to the last change into high gear. A great many don'ts can be remembered to advantage. Never allow the gears to grate; press the clutch in a decisive manner; before making each change accelerate the speed of the car. Do not allow your machine to slow down; because in a great many instances, such a system will prove uneasy and disastrous. There is no fixed speed at which gear changes should be made, but practice will soon make perfect and provide all the indications desired. What may seem at first a difficult problem to solve, will later on be regarded very lightly.

Most cars are sold with a reputation for hill climbing, but it is well to bear in mind that the forcing of any piece of machinery is not good policy. If you feel that your automobile is not going to climb a certain hill on high gear, be good enough in your own interests to throw on the intermediate gears, in order that the strain may not have a telling effect upon the mechanism; and in going down hills, do not be too proud to pull back the emergency brake, in order that the descent may be made with safety. It is better to guarantee an easy, sane—performance, than to take chances.

The clutch of your car should be given constant

attention. If in proper order, it will engage readily and give a quiet, economy of motion to the machine, but if it is only taking hold in a mild easy manner the result is burning leather and general inconvenience. In most cars the adjustment is extremely simple. You can determine the amount of dependence to be put upon the clutch by trying the gear with the emergency brake pulled back to the limit. If

the pulling power exerted is strong, your clutch can be depended upon in a crisis, but if no great strength is exerted further tightening is absolutely necessary. The majority of the difficulties with a cone clutch are in the leather facing, which becomes hard, or burned, or compressed beyond usefulness. A certain amount of friction is always caused because a clutch must slip, but see to it, that this necessary



Power of a Kind Not Common.

A circus disbanded in Sheffield, England, and the animals were let out for hauling purposes. The two camels and the big elephant are shown hauling three heavy boilers. International Film Service.

Fitted.

young Short- in January, winter, and, few mangels is was done when he was ved out with all, when it t fed heavily decided he 16. the special lbs. Then, February 6, on February 10 lbs., his he made a weeks was p gradually and oil cake with a few y he would ll the water e of feeding at the end most colts n February n March 1

HAAS, JR.

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ARBOUR.

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heat does not bring on serious complications. In multiple disk and three plate clutches, roughness seems to be the outstanding cause of dissatisfaction. If you keep your plates smooth, you have done practically everything necessary. Wear should be watched for, and when it becomes distinct, should be remedied by replacements.

AUTO.

Petroleum Power and Supply.

When one form of power or fuel becomes excessively costly human ingenuity or discoveries in the amazing storehouses of nature come to the relief of mankind by holding in check the rapacity of corporations or individuals. The alarming cost of gasoline to large users of motor-car power has directed attention more and more to kerosene as the solution of the problem. President Russell Huff, of the American society of Automobile Engineers reports a widespread and keen interest in the construction of the more economically operated cars, and at a recent New York meeting the conclusion reached was that the problem would finally be solved by the development of engines that would use kerosene. At a Cleveland society meeting it was believed that developments in carburetion would have an important bearing in reducing fuel consumption and permitting the use of cheaper fuels. In this connection it is encouraging to the public to know that the discoveries of new crude petroleum wells and the supplies of this important raw fuel appear to be increasing. A recent return for the United States shows that crude oil production is now the greatest in the history of the industry. The May output reached 800,000 barrels per day, a figure never before attained, and an available stock reported at nearly 175,000,000 barrels. Furthermore, there are enormous supplies of crude oil yet untapped in the publicly-owned lands of the United States. Instead of a famine in crude oil this prospect is rather one of over-production, and some big oil operators foreshadow a big slump in prices unless a check is put on drilling activity. It is about time the public were getting cheaper oil.

A Boston company has begun the manufacture of liquid air for driving automobiles and other machinery.

Because of the increase in the number of motor cars and lessened demand for horseshoeing a Wisconsin Horseshoers' Association has ordered a general advance in prices for work.

A large increase is reported in the number of petroleum, oil fuel engines being turned out by Canadian manufacturers.

THE DAIRY.

The Dairy Movement in P. E. Island

EDITOR "THE FARMER'S ADVOCATE":

George Barr of the Dairy Division, Ottawa, in company with Harvey Mitchell, Maritime Representative of the Dairy Division, Ottawa, Rev. P. C. Gauthier and Andrew MacRae, a prominent Ayrshire breeder, have just completed a tour throughout the Island, and already the good effect can be noted. A series of dairy picnics were arranged by Mr. Mitchell, and the local Department of Agriculture, to discuss vital questions with our dairy farmers. Every man is an expert and spared no one who was not properly caring for milk or any factory where cheese or butter was not being made, to the greatest advantage. Mr. Barr dealt principally with the care of the milk on the farm and after visiting a factory in the morning was well prepared to talk to those who were producing the milk. In many cases Mr. Barr spent considerable time with the makers throwing out hints, particularly about the fast working curds, the proper working and salting of butter. Andrew MacRae discussed the feeding and breeding of dairy cattle. Rev. P. C. Gauthier, represents the Catholic Clergy in agricultural matters, and appealed forcibly to every audience to forget race, color, and creed in order that progress might be made. He encouraged them to place a premium on quality of butter, cheese, pork and beef. He emphasized the great possibilities of the Island, if intelligent effort took form in co-operative measures, dealing with every agricultural activity. Our boys and girls, he said, are our greatest assets and too often they leave the Island immediately they are of age. The problem of education was our greatest question and would never be satisfactorily solved until the small country school gave place to more essential effort where children would be taught in a more modern way. Consolidation, he believed, would be the solution of the problem.

Since the passing of the dairy legislation last winter, there has been a decided impetus to excel. The work is now practically under the Agricultural Instruction Aid Act from which fund the Inspector is paid. He is directed by the Director of Agricultural Instruction in co-operation with the P. E. I., Dairymen's Association. The factories open as a rule about June 1st. Previous to this date, the Inspector, Mr. Morrow, visited as many factories as possible and suggested ways and means of improving surroundings. It is safe to say that every factory cleaned up and did some repairing, in many, large sums were spent on floors, vats

etc., while one butter factory purchased a pasteurizer. Cream grading is practised in several sections. As a result, in some places, the quality of the output has advanced very much and only recently test shipments have been made from which the buyer expects satisfactory replies. It is only a matter of time and some effort to bring our dairy products to a high standard.

Centralization seems to be the key note in butter production in order that a large make is possible which permits the purchase of high-priced machinery.

The dairy outlook is excellent this season. The weather has been exceptionally favorable and the crops probably never gave greater promise, thus ensuring sufficient pasturage and large crops of hay. The root crop has got away with an early start, thus giving succulence for next winter.

One of our greatest needs is a Dairy School situated in the Maritime Provinces, where our makers could get instruction by gathering together and going over the work, thus discussing problems as they arise. The schols in Ontario are out of reach for our individual makers. This is the only way by which uniformity of make can be ensured, providing the quality of the milk is reasonably uniform. If the Maritime dairymen are going to compete, some such action is necessary at an early date.

W. R. R.

A Milking Machine Making Good.

Geo. B. Curran, District Representative in Napanee Co., Ont., cites a rather interesting case where a man in his county has installed a milking machine at a cost of \$247, including gasoline engine to operate the outfit, and with which one man can milk 20 cows in less than an hour with the three units and an extra pail. The owner of the machine told Mr. Curran that his 19 cows were averaging around 750 lbs. of milk when the machine was installed, but with machine milking there was a steady increase in production from the herd and in a week it had risen nearly 100 lbs. One cow, hard to milk by hand took to the machine quite readily.

HORTICULTURE.

Peculiarities of the Sweet Cherry.

Apart from the necessity of planting sweet cherries on gravelly or well-drained soil there is an apparent need of some precautions when planting, to so group the varieties as to ensure adequate fertilization. The matter of getting the bloom of all fruits to materialize into a good crop is claiming the attention of scientists, and since sweet cherries are very erratic about bearing, it seems more than possible that the nature of the blossom is such as to require special consideration.

The Oregon State Experiment Station has been investigating this phase of sweet-cherry culture and they have come to the conclusion that some varieties are self-sterile, while others are inter self-sterile. Northern Spy apples are said to be self-sterile, because they require some other variety in proximity to them to ensure proper fertilization of the bloom. The blossom on the Spy itself does not seem to possess all the properties necessary to fruiting although the stamens, pistils and other parts of a perfect flower are present. It was found at the Oregon Station that some varieties of sweet cherries, besides being self-sterile, were inter self-sterile, meaning that even the bloom of different varieties could not fertilize each other. Examples were the Bing, Lambert and Napoleon (Royal Anne). These varieties were not only self-sterile but inter self-sterile. In this province the Napoleon is quite hardy on the south shore of Lake Ontario and is noted for its productivity. Whether it is nearer self-fertile with us than it is in the South, has not been determined, but perhaps the other varieties in the same district effect adequate fertilization and relieve the growers of all worry in this regard. Black Republican or Black Tartarian were found to be effective and suitable varieties to plant near the Bing, Lambert and Napoleon to cause them to fruit.

In a cherry-growing district there is seldom any difficulty experienced through the lack of self or cross-fertilization of the bloom, because so many varieties are usually set that the interchange of pollen is quite thoroughly effected through the good services of wind and insects. The isolated grower, however, may find in these peculiarities of the sweet cherry some clue to the mysterious behaviour of his trees.

Telegraphic Reports re Fruit.

Commencing about August 1 the Fruit Branch of the Department of Agriculture at Ottawa, will publish at frequent intervals (probably twice weekly) reports covering fruit conditions in all parts of Canada. These reports will contain the following information:

- 1. Fruit crop conditions in all commercial sections.
2. Wholesale prices in leading Canadian markets.
3. Quantities of fruit being exported.
4. Condition of fruit on arrival at destination.

This information will be of great value to all who are commercially connected with the fruit-growing industry. The reports will be received in Ottawa by telegrams and distributed immediately.

Anyone wishing to receive these telegraphic reports can do so by making application to the Fruit Branch, Department of Agriculture, Ottawa.

Honesty and Good Fruit Command the Price.

Our governments might sit constantly for months and do nothing but enact laws regarding the marketing of fruit, but if the good will and sentiment of the growers at large were not in harmony with the text of the statutes, the laws would be of no more value than that memorable "scrap of paper." The fewer laws we have the better, but the honest man has no fear of them. The fact that we shall be hanged if we commit murder does not terrify; it is only the murderer who quakes and trembles at that decree. The thought of the penitentiary does not keep the average human being awake nights, for he considers it only the abode of the evil doer. The laws that fruit growers are asked to observe are, we believe, fair and just. They protect the honest producer and tend to standardize the output in the eyes of the consuming populace, and what would help the fruit business in this country more than to have the people who use our stuff consider a barrel of No. 1 apples as made up of fruit well matured, free from injury by fungus or insects, and large enough to be good for any use? If a basket of peaches, plums, cherries or grapes signified a certain quality, or a box of berries meant a definite weight of luscious fruit, always the same, much of this necessity in every home would be purchased over the telephone as are other household wants. Unfortunately this is not the condition of affairs. The buyer for the home goes to the fruit store or market and requests that the fruit be shown. This is not sufficient, the contents to the very bottom of the package are often inspected, as though any grower would try to deceive the buyer by placing superior stuff on the face and inferior fruit below the surface. Perhaps there is some peculiarity about the human race that induces this universal suspicion of what the fruit-grower offers for sale, while the manufacturer's output is bought and carried home with the greatest confidence. After a careful study of the situation one is obliged to conclude that at some time or other people have been "stung" or the packages were over-faced. The Dominion Fruit Commissioner has, on several occasions this season, brought this very fact to the attention of producers and asked them to see that packages were well filled and the same throughout. Violations of the law have come under the observation of the inspectors. Those who do so transgress, not only injure their own reputations and prejudice their future chances, but they besmirch the whole industry and render marketing a laborious task. One's sins will find him out. The consumer complains to the dealer and he in turn traces the act back to the grower, who is then "black listed." Honesty is the best policy.

There is another side to this question. Few realize the difficulties of the producer. His product varies with the season and other influences over which he has no control. The laborers in his employ will often over-face a package to make it look attractive, even though they have no financial interest in the product whatever. There is a tendency, strictly human, to make the offering appear pleasing to the sight even to the extent of exaggeration. We believe that in the majority of cases where overfacing is detected the wrong is committed not with evil intent, but in ignorance of the rules of the trade and the injurious consequences that are sure to result. Dealers have been known to repack boxes of fruit and berries, and what was originally an honest pack has gone out over-faced and adulterated with second grade stuff. Instances of this nature are happily the exception and so is the dishonest grower, but for the sake of one and all alike we admonish fruit-growers to fill their packages with fruit just as mature as will carry properly, according to the kind or variety, and make the face representative of the entire contents of the container. This practice will make for a better business. It is surely worth doing.

Apple Scab Has Decreased the Crop.

After the abundant bloom appeared on the apple trees throughout Canada and the United States this year, many growers assumed the "what's the use" attitude and allowed their orchards to go unsprayed. The continued and almost constant rainy weather during the early season also hindered spraying, and the result is that No. 1 quality is likely to be scarce and worth a good price. The scab on the stem frequently causes the small apple to drop, and even though it remains hanging it is not likely to be of any great commercial value. The reports of apple scab come persistently from all over Ontario with the exception of some small areas, and New York State is suffering from the same trouble. It is going to reduce the now visible crop to a considerable extent so that any clean fruit is worth watching. When the fungus once becomes entrenched it cannot be beaten off but further spread can be prevented. The careful fruit grower will, we believe, realize a good price this year if he has a clean article to offer. A second perusal of the article on apple scab by Prof. Lawson Cæsar, which appeared in the issue of April 6, 1916, is now worth while. The danger periods are well explained in that excellent treatise and orchardists might even now prevent further infection by applying a fungicide.

An idea may be formed of the growth of grain husbandry in South America from the fact that Argentina imported 546 more threshing outfits in 1915 than in 1914 and the year following an increase of 827, while for the year ending March 1916 the increase was 1,000.

Niagara District Fruit Crop Slightly Damaged.

The severe storm on Sunday, July 2, injured the fruit crop of the Niagara District to some extent, but the actual damage was not so extensive as first reported. F. M. Clement, Director of the Horticultural Experiment Station at Vineland, has sent the following information to "The Farmer's Advocate": "The damage was very severe in a small part of the Township of Niagara. Hail stones cut a large portion of the fruit from the trees, and damaged what was left in this particular area. A number of men lost their total crop. The damage, however, to the total crop of the Peninsula was very light. The percentage lost would not be more than two or two and one-half per cent. of the total crop. Some grapes throughout the whole district were damaged slightly by having the tender shoots broken loose, but here again the total loss is very small."

POULTRY.

It Will Pay to Feed Layers Skim-milk.

During the past three or four years poultry raisers have been reading more or less about sour skim-milk as a food stuff for poultry of all kinds. Particularly has the public been told through many poultry papers and station publications of the probable value of this by-product of the dairy as a food for baby chicks. In localities where sour skim-milk can be obtained for a fair price, the question has often been raised as to whether or not it is an economical food for the laying flocks. This experiment has been conducted with the idea in mind of determining the exact value of sour milk as a supplementary feed for laying fowls, measuring this value in terms of surplus eggs produced. The following is a record of certain studies along this line, recently conducted at the New Jersey Agricultural Experiment Station.

Two pens of 100 Single Comb White Leghorn pullets each, all March-hatched, were selected. These birds were as uniform in size, development and quality as was possible to obtain. Both flocks were kept in a hollow tile laying house, both pens being exactly the same in size and furnishings, and both flocks were managed under absolutely similar conditions. The regulation New Jersey State Rations were fed in both pens. Pen No. 22 received sour skim-milk in unlimited amount daily. Pen No. 25 received no skim-milk.

For lack of room, it will be impossible to show the complete tables giving the detailed results secured from this study. However, a few figures must be known to be appreciated. Pen No. 22 receiving sour skim-milk laid during the first twelve months 12,044 eggs, or an average per cent. production of 34.4. The value of these eggs on the wholesale market was \$375.04. The feed cost, including skim-milk, was \$116.16, leaving a net profit above all feed consumed of \$277.34. Compare with these figures the results secured from Pen No. 25, which received no sour skim-milk. The number of eggs laid during the first twelve months was 8,382, or an average per cent. production of 25.76, with a resulting value of eggs produced of \$256.14. The cost of all feed consumed in this no-skim-milk pen was \$99.21, leaving a resulting profit for the pen above feed of \$155.93. Finding the difference in profit where skim-milk was fed, we find an increase of \$121.41 in favor of skim-milk, or, based on the record of this experiment, skim-milk increased the profit over \$1.00 per bird. A study of the feed consumption shows that the milk-fed pen consumed considerably more feed, due probably to the increased production. In addition to this study here enumerated, four other tests with younger and older birds and with birds of different breeds were run simultaneously. The results of all these studies verify the differences shown in this particular instance, although in no case was the difference quite so pronounced. The conclusions reached from a careful analysis of these and other records of similar nature are as follows:

1. Sour skim-milk has a very definite place in the nutrition of laying hens, being a splendid source of protein food, the element so necessary for the production of eggs.
2. The returns measured in number of surplus eggs produced indicate that the sour skim-milk has nearly five times the value paid for it.
3. The feeding of sour milk kept the birds in better physical condition, lowering mortality and keeping them practically free from disease.
4. The feeding of skim-milk slightly increased the consumption of other parts of the ration, probably because the skim-milk kept the digestive organs in splendid running order so that they were able to handle larger amounts. It is thought that on a commercial basis this factor would appear more strongly than it did in this somewhat limited experiment.
5. Egg producers can afford to pay from 40c. to 80c. per hundred pounds for skim-milk.
6. Sour skim-milk can be fed in open pans, thus necessitating very little labor.—Harry R. Lewis, in Canadian Poultry Review.

FARM BULLETIN.

A Lost Article.

BY PETER MCARTHUR.

Just as I sat down to the typewriter I found the subject for an article or at least a paragraph. I came in out of the hay field, wiped the sweat out of my eyes with the back of my hand and sat down at the desk to write about something I had been thinking about all forenoon. But before starting I found myself confronted by the great temptation—the temptation that has led more farmers astray than any other. It is the temptation that drives boys and girls from the farm—one that I have often moralized about, although I never before felt it in my own case. This is what happened. Just as I was going to start writing I stopped long enough to reflect that no time was being wasted because a boy had taken my place on the mower. Even though I might stay at my desk for a couple of hours the work would go on just the same and I would not have to pay a hired man. Then came the thought of how pleasant it will be when the boys grow up and can do the work while I sit around and boss the job. There will be no wages to pay and—but right there I came to a stop. It is just because so many farmers regard their boys and girls as servants who must work without wages while father reaps the profits that so many young people leave the farm. Of course there are two sides to the story. Possibly the father has been working hard all his life, and the expenses of a growing family have kept him back so that the first chance he sees of getting ahead comes when the children are big enough to work. They owe him much and he has a right to expect some return, but it will take a lot of good judgment to decide how much he has a right to profit on their labor before allowing them, or helping them, to make a start for themselves. The great trouble is that when father begins to taste the sweets of having his work done without having to pay wages he doesn't know when to stop. The older he grows the more he hates to give up any share of his profits and then the children get discontented. But there are some fathers who think the matter over carefully and strike a just balance. Still, the temptation to take advantage of the opportunities offered by a growing family is very real. Don't I know it? Only a few minutes ago I had a pleasant vision of fruitful years with nothing going out for labor. It looked so good that it gave me a wrench to realize that it would involve much injustice. But while it lasted it looked good and I am not so surprised as I used to be that farmers yield to this temptation.

It seems as if all things were conspiring to keep me from writing the article, I had planned. I fully intended writing it as soon as I wrote the above paragraph about the joys of not having to pay wages. But just as I was ready to start my attention was attracted by joyous shouts, gurgling laughter and much splashing of water. Glancing from the window I saw a sight that scattered my ideas and filled me with envy. The two little boys had filled a large iron food boiler which is used for heating water on wash days. The hot sun soon brought the water to the right warmth to make the swimming fine and they had both plunged in. As there is no regular swimming hole within miles of us the boys had hit on the big boiler as a substitute. Of course it wasn't the real thing, but it had one advantage of a swimming hole. They could splash around in it without feeling that they were taking a bath. I don't know why it is, but water in an ordinary bath tub never looks so attractive as it does in a swimming hole. Perhaps it is because the bath tub carries with it a suggestion of duty and of cleanliness that can be achieved only by much painful soaping and rubbing. But in a swimming hole it is different. You just slosh around and let the mud squeeze between your toes, while the sun is burning your back. Of course the boys haven't the mud in the big boiler, but they have the wind blowing on their wet backs, and the sun burning them, and they look so happy when coming up from cool plunges that I am consumed with envy. To see them so comfortable makes me feel twice as hot as I did when I came in out of the field. But never mind. When I am putting cold cream and talcum powder on blistered backs to-night I will feel that being too old to go swimming in a big boiler has some compensations.

More excitement! It really seems as if a conspiracy existed to keep me from writing the thoughtful article I had in mind for this week's contribution. Just now the cry went up that Clementine, the bottle-raised little pig, that has a pen under an apple tree in the orchard has just escaped and has come to the door to make a few remarks about the cruel shortage of the food supply. It is a perfect riot. The pig is squealing, Sheppy is barking, and the indignant supervisor of the lawn is making pointed remarks. O, well, I guess I had better go and attend to matters. . . . Say, can anyone tell me why a pig squeals so unmercifully even when it is not being hurt? I handled that sucking pig as tenderly as if it were an infant in arms and it never stopped squealing while it was being carried ten rods to its pen. The neighbors will think that we are having a pig killing.

Now everything is quiet and I must get down to business. Let me see. . . . What on earth was it that I was going to write about? I'll be switched if I haven't forgotten. Still it doesn't matter. I have space for only one paragraph and I know I couldn't

do justice to what I was thinking about in so little space. Besides, the weather is too hot for serious writing. With the haying in progress and the corn being cultivated, no one wants to read solid stuff any more than I want to write it. Yet I hate to lose that article after spending so much time thinking it out. Perhaps I will think of it some other time. But even if I don't it will not matter. We are having such beautiful weather after our wet spring that I refuse to worry about anything. A man can always find something to write about and even if he can't he can write about nothing. A great many writers do that even when they are most solemn, but I wouldn't bluff the readers of The Farmer's Advocate in that way. I always try to tell them the truth even when I have nothing to tell.

Canada's Crops in Every District.

A special press bulletin issued July 3, by the Census and Statistics Office gives the following report on the condition of field crops in Canada at the end of June, as summarized from telegrams received from the Dominion Experimental Farms and Stations in accordance with arrangements made between the Departments of Trade and Commerce and Agriculture. The reports show that the prospects for grain crops are excellent throughout the West, but the crops being about ten days later than last year, much will depend upon freedom from early frosts.

In Prince Edward Island the weather conditions have been most favorable for all crops. Spring work was completed fully two weeks ahead of last year; beneficial rains fell occasionally. All the grain crops are sturdy. Roots and potatoes came on well. In some districts hay is light, in others heavy; it will be an average crop. Nova Scotia, Kentville.—June was an exceptionally fine growing month, following an ideal month for getting crops in. All farm crops are looking better than usual. Amherst.—An unsettled June, making seeding very difficult. A large percentage of all grain was sown early in June and has germinated well; roots and potatoes have yet to be planted. Weather too cold and wet for good growth, barley suffering most. New Brunswick, Fredericton.—With 13 rainy days in June the precipitation amounted to six inches; low lying crops have been damaged and weeds are smothering the root crops. Grass and grain are generally above average. The potato acreage is equal to last year, and the early planting is good. A considerable acreage of turnips and buckwheat has not yet been seeded.

Abundant rains have favored the growth of grass, and prospects are excellent for a good hay crop in Quebec. Low-lying lands have suffered from too much rain. Paspbebiac, Bonaventure.—Wheat, oats and barley look exceptionally well; potatoes are very good; if rains keep on crops may be injured; in low lands it is almost impossible to get weeding done. Rimouski.—All crops have a magnificent appearance, only low lands have suffered from rains. Ste. Anne De La Pocatiere.—June has been rainy and cool; seeding late and difficult; grain and fodder corn rather poor on undrained and low land; hay crop never gave greater promise; field roots are making good start; pasturage abundant and fruits very promising. Cap Rouge.—Rains nearly every day; pastures are good, and hay crop will be very heavy; owing to too much precipitation only three-fourths of the usual area was sown to grain; potatoes and corn do not look well; all root crops have germinated well. Nominique, Labelle.—Hay has a very fine appearance, grain somewhat backward but promising, potatoes fine for season and pastures magnificent. Lac A La Tortue.—The appearance of cereals is only medium, except on high lands; corn good, potatoes good, peas very good. The frequent rains have caused many weeds in hoed crops and have flooded lands insufficiently drained. Lennoxville, Sherbrooke.—Seeding has been retarded greatly, especially corn and hoed crops; haying two weeks later; grain crops very backward; corn three weeks later than usual. Aubrey, Chateauguay.—Grain has the appearance of a bumper crop; corn doing well; potatoes not very good; other roots looking well.

About one-third less grain was sown than in previous years in Ontario. In condition it is uneven, spotted and badly affected by rain. A great deal will not ripen, and will be cut for green feed. Corn this year occupies not more than two-thirds of last year's area. In some parts no crop was got in at all, and the land must be summer-fallowed. The hay crop is good, but fine weather is required for saving it. Potatoes are in bad shape and roots are late.

Abundant rains have fallen during latter part of June, around Brandon, Manitoba. The crop is very well rooted and there is a strong healthy growth; except for lateness prospects are excellent. Morden.—Weather fine and warm with sufficient rainfall. At present everything looks like a bountiful crop.

Indian Head, Saskatchewan, reports grain crops throughout the district as good. Weyburn.—All grain crops are looking well with plenty of moisture and growing very fast. Hay is good. Gull Lake.—Wheat from ten to eighteen inches high; none in shot blade owing to too much rain. Moosejaw.—Condition of the principal field crops very satisfactory. Earliest wheat nearly shot blade stage; very good stand on ground not hurt by high winds. Oats and barley showing rapid growth; plenty of moisture and good growing weather. Potatoes and corn coming on well. Maple Creek.—Rank growth of all grains. Wheat in the shot blade. Early sown wheat almost ready to head. Abundance of moisture. Prelate.—All wheat and oats in this district are good. Most of it is an ideal crop. Cabri.—

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Wheat 14 to 18 inches high; oats 8 to 10; flax 3 to 6. Crops growing fine. Everything points to another bumper crop in this district. Radville.—Crops in fine condition; plenty of moisture, wheat 2 feet high. Rosthern.—Much rain, and rank strong growth in all grains. Hay and pasture particularly good. Much oats and barley sown on late spring ploughing. Early frosts the only prevention of a big harvest. Scott.—Weather cool and unsettled, precipitation heavier than is usual for June. Stand of all kinds of grains unusually thick. Early sown wheat in shot blade. Labor scarce and expensive. Farmers anxious regarding binder twine supply. Lloydminster.—Wheat eighteen inches, early oats twelve. Weather warm with an ideal growing rain Thursday night. Every indication of a heavy crop. Spring was late, but in ten days will be as far advanced as last year. Grassy Lake.—All field crops in this district are in excellent condition. Wheat, oats, barley and rye are heavier and better than they have ever been since this part of the country was settled. Corn and flax are good, but need warm weather.

The wheat crops are uneven around Medicine Hat, Alberta. Fallow wheat is heading. The late-sown wheat is doing well with the ideal weather. The oat crops are all late-sown, but growing very quickly. The potato crop is very promising indeed. Flax is well up. Jenner.—Sufficient moisture here. Surrounding crops in fine condition, some wheat heading out. J. P. Irwin, Assistant Supervisor of Illustration Stations, reports that a large percentage of crops in Southern Alberta stubbled in suffered considerably for lack of rain recently, but rains of past few days have brought them on in good shape again. Many districts suffered from early high winds, but rains of last week in May and later relieved situation. Hoed crops look well. All hay crops are excellent. Lethbridge.—General crop outlook excellent, being as good as last year. Munson.—Crops in this district are exceptionally good; a good even stand all over the ground; lots of moisture to insure a crop, with occasional warm showers and warm days. Grain growing very fast. Wheat 22 inches high. Indications of a bumper crop. Carmangay.—Crops are looking well. Beneficial rains have fallen the last two days. A good crop is looked for if it does not get frosted. Pincher Creek.—Beneficial rains have fallen the last two weeks and the condition of the grain and hay crops is excellent. Hoed crops and later cereals have germinated evenly and are coming along well. Macleod.—All grain crops are looking well. Some wheat starting to head. Prospects bright for bumper crop. Plenty of rain during June. Lacombe.—Cool weather until early June delayed growth but promoted root development. Wheat 30 inches high.

The month has been cool at Agassiz, B. C., with over 2½ inches precipitation well distributed. One week was quite warm. Highest temperature eighty-eight. Conditions have been excellent for crop growth. Cereal, root and corn crops doing well. Season three weeks later than last year. Clover for silage harvested. Invermere.—Crops backward but promise well. Alfalfa

and clover ready to cut. Cutworms have caused considerable damage to root crops and garden truck. Sumnerland.—Irrigated land very poor owing to drouth. Beneficial rains have fallen this week and will help range land and cereal crops. Victoria.—June very dry. All crops below average. Rain during last days of month has improved the prospect for spring-sown cereals, forage crop and orchard fruit.

Freight Rates Are Boosted.

After deliberating nearly two years the Railway Commission last week gave judgment in the eastern freight rates' case, which applies from Port Arthur east. The Railway Company, on the ground of increased cost of hauling, applied for a flat increase of at least 5 per cent. This was not allowed, but substantial increases all around were made, and shippers will very soon be furnished with a printed card indicating the new rates, due notice of which must be given by the railway companies before they go into effect.

The findings regarding the class tariffs may, however, briefly be summarized. In the territory bounded on the west by, but not including, Port Arthur, and by the Georgian Bay, Lake Huron and Detroit River, and on the east by Quebec and Megantic, also between C. P. R. stations in New Brunswick, the class rates, provided they are now lower than the standard or maximum mileage tariff, may be increased by two cents in the first, and one cent in the fifth classes, the rates for the other classes to be properly proportioned in accordance with the standardized scale. An exception is made of the lines of the Canadian Pacific and Canadian Northern between Parry Sound and Sudbury, on which no increases are allowed.

Because of the comparatively lower level of the rates to the Maritime Provinces, greater increases are permitted. Between points in the Provinces of New Brunswick and Nova Scotia and points west of Quebec, Levis and Megantic, as far as Montreal and Valleyfield, and north of the Ottawa River, the first class will be advanced four cents and the fifth class two cents, the other classes in proportion. Between the same Maritime sections and points west of Montreal, the carriers are authorized to increase their rates by six cents for the first class and three cents for the fifth, the remaining rates fitting in from the standardized scale.

An exception is made of the line of the C. P. R. in the St. John River Valley, where the rates, instead of being advanced, will be lowered by the company so as not to exceed the St. John rates, this relief being due to the opening of the National Transcontinental, south of Edmundston, N. B.

As the Government railways are not subject to the jurisdiction of the Board, the Intercolonial and National Transcontinental management is, of course, free to fix its own rates. Nevertheless, the judgment provides that the through rates of the Grand Trunk,

Canadian Pacific and other interdependent companies in Quebec and Ontario, to intercolonial points east of St. John to Halifax and Sydney, are to preserve the same differences, if any, over the St. John rates as at present.

The reasons given for the increase are that operating expenses have increased. In the period from 1910 to 1914 earnings increased 10.6 per cent., and expenses 17.7 per cent. In 1915 earnings increased 5.3 per cent., and expenses 10.4 per cent. Railway ties cost 38 per cent. more in 1914 than in 1907. In 1915 they were 45 per cent. higher. Fuel was up 30 per cent. in 1914-15 over 1907. Salaries and wages represent three-fifths of total railway expenses. The wage bill of the Grand Trunk increased in the period 1909 to 1914 by 52 per cent, and for 1915 the increase was 50 per cent. Wages are increasing all the time. The net earnings per mile of line of the Grand Trunk at their highest in 1913 amounted to \$3,500 per mile. In 1914 they were \$3,059 and in 1915, \$2,477.

The railways have been practicing certain economies with respect to repairs which no longer can be practiced. The Grand Trunk must have 1,249 new freight cars at a cost of \$2,235,000. Track renewals have dropped from the normal of 431 miles in a year to 67 miles in 1915.

The proposed increases on fruits are deferred until they can be considered along with proposed increases in icing and salt for refrigeration, which are now under suspension.

The effect of new competing lines, e.g., the Canadian Northern, recently constructed, is not considered in striking a reasonable basis. The increases made are justifiable entirely on the mere fact of the increases in Grand Trunk expenses, and having regard to traffic of normal years.

Besides the class tariffs of general application, meaning the rate scales used everywhere in connection with the freight classification, the application of the railway companies comprises over one hundred and fifty exceptional or special single rates, and more or less comparative schedules of exceptional rates, lower than the class rates, applicable to various commodities. Findings were all based on G. T. R. earnings.

The Ottawa Winter Fair.

At the annual meeting of the Ottawa Winter Fair, held recently, in Ottawa, the following officers were elected for the coming year: Hon. Presidents, John Bright, Ottawa; Peter White, Toronto; Col. W. J. Cowan, Cannington. President, Wm. Smith, M. P., Columbus; Vice-President, J. C. Stuart, Osgoode; General Director, R. W. Wade, Toronto; Secretary-Treasurer, W. D. Jackson, Carp.

The show held January, 1916, was a success beyond expectation, being the largest in the history of the organization. January 16, 17, 18, 19, are the dates for the 1917 show.

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts of live stock at the Union Stock Yards since Saturday week end numbered 196 cars, comprising 3,152 cattle, 161 calves, 680 hogs, 728 sheep, and 680 horses. Very slow market. Cows, bulls, milkers, springers and light butchers' cattle steady, at last week's prices. Heavy, fat cattle, from 25c. to 50c. lower; lambs about \$2 lower; cables steady; heavy, fat sheep, almost unsalable; hogs, 25c. lower.

The total receipts of live stock at the City and Union Stock Yards for the past week were:

	City	Union	Total
Cars.....	57	406	463
Cattle.....	602	4,723	5,325
Hogs.....	577	8,496	9,073
Sheep.....	402	1,401	1,803
Calves.....	238	870	1,108
Horses.....	176	787	963

The total receipts of live stock at the two markets for the corresponding week of 1915 were:

	City	Union	Total
Cars.....	28	588	616
Cattle.....	350	5,872	6,222
Hogs.....	482	10,699	11,181
Sheep.....	580	2,101	2,681
Calves.....	69	833	902
Horses.....	121	2,777	2,898

The combined receipts at the two markets show an increase of 206 calves and a decrease of 153 cars, 897 cattle, 2,108 hogs, 878 sheep, and 1,935 horses.

Last week's trade in live stock on the Toronto market was an irregular, hard-to-quote affair from start to finish. On Monday there was a large market, and, as a result, buyers forced prices downwards. For the balance of the week there was a very light run of all kinds of live stock, with the result that prices were advanced in some lines and remained firm in others. Choice

butcher steers and heifers were steady to firm all week at from \$9.85 to \$10.25, a few extra choice loads bringing as high as \$10.75. There is a good demand for good to choice butcher cattle of all kinds, but farmers must not send inferior and unfinished cattle and expect top prices.

Cows.—These, too, show strength, and remain firm at prices as quoted below.

Stockers and Feeders.—Dealers in this kind of cattle cannot begin to fill orders for the good animals. One dealer alone has orders for eight car loads which cannot be filled, as neither he nor his customers will take inferior to poor-quality cattle.

Milkers and springers are much the same as the previous week. There was a steady market at from \$60 to \$100 each.

Veal Calves.—Receipts were moderate with a strong demand for the better quality. Choice veal selling for from 11c. to 12c.; medium at 8c. to 10½c.; common at 6c. to 7c. per lb.

Sheep and Lambs.—Receipts were not large and prices remained firm for sheep, while lambs were stronger. Heavy, fat sheep and unfinished lambs are not wanted and are very hard to sell.

Hogs.—Hogs remained steady to firm during the week at prices quoted by the packers, which were, fed and watered \$11.40; weighed off cars, \$11.65; f. o. b., \$10.90. A few cars of extra choice hogs sold at \$11.75. Packers say hogs will be 25c. lower this week. Buyers and sellers both expect lower prices will prevail next week, especially in spring lambs and hogs.

Butchers' Cattle.—Steers, choice heavy, \$9.85 to \$10.25; good, \$9.50 to \$9.75. Steers and heifers, choice, \$9.25 to \$9.50; good, \$8.90 to \$9.25; medium, \$8.50 to \$8.75; common, \$8 to \$8.40. Cows, choice, \$7.40 to \$7.65; good, \$7.10 to \$7.35; medium, \$6.25 to \$6.75;

common, \$5 to \$5.50; canners and cutters, \$3.75 to \$4.25. Bulls, choice, \$8 to \$8.25; good, \$7.75 to \$8; medium, \$6.50 to \$7; common, \$5.25 to \$6. Milkers and springers, best, \$80 to \$100; medium, \$60 to \$80. Veal calves, choice, 11c. to 12c. per lb.; medium, 8c. to 10½c. per lb.; common, 6c. to 7c. Sheep and lambs, choice spring lambs, 15c. to 16c. per lb.; medium, 10c. to 12c. per lb.; yearling lambs, 9c. to 10c. per lb.; light, handy sheep, 8c. to 8½c. per lb.; heavy, fat sheep, 5c. to 5½c. per lb. Hogs, weighed off cars, \$11.65; fed and watered, \$11.40; f. o. b., \$10.90.

Country Produce.

Butter.—Butter firmed slightly on the wholesales during the past week. Creamery, fresh-made pound squares selling at 30c. to 32c.; creamery solids at 29c.; separator dairy at 27c. to 28c., and dairy at 23c. to 25c.

Eggs.—New-laid eggs also advanced from one to two cents per dozen, selling at 30c. to 31c. per dozen in case lots, and 33c. per dozen in cartons.

Cheese.—Old, 21c. to 22c. per lb.; new, 18c. to 19c. per lb.

Honey.—Is off the market.

Beans.—Primes, \$4.20; hand-picked, \$4.50.

Poultry.—Spring chicken receipts continue to be light, and they have remained about stationary during the past week. Fowl receipts are heavy with a good demand. Spring ducks only being received in small quantities with little demand. Spring chickens, 35c. per lb.; spring ducks, 20c. per lb.; fowl, 4 lbs. and over, 17c.; under 4 lbs., 16c.; turkeys, 20c. per lb.; squabs, dressed, \$3.60 to \$4 per dozen.

Hides and Skins.

City hides, flat, 20c.; country hides, cured, 18c.; country hides, part cured, 17c.; country hides, green, 16c.; calf

skins, per lb., 30c.; kip skins, per lb., 24c.; sheep skins, city, \$2.50 to \$3.50; sheep skins, country, \$1.50 to \$3; lamb skins and pelts, 55c. to 70c.; horse hair per lb., 43c. to 45c.; horse hides, No. 1, \$5 to \$6; No. 2, \$4.50 to \$5.50. Wool, washed, 42c. to 46c. per lb.; wool, rejections, 35c. to 38c. per lb.; wool, unwashed, 32c. to 35c. per lb.; tallow No. 1, 6½c. to 7½c.; solids, 6c. to 7c.

Breadstuffs.

Wheat.—Ontario, (according to freights outside) No. 1 commercial, 97c. to 98c.; No. 2 commercial, 93c. to 95c. No. 3 commercial, 87c. to 89c., according to freights outside; feed wheat, 83c. to 85c. Manitoba wheat (track, bay ports), No. 1 northern, \$1.19¼; No. 2 northern, \$1.18¼; No. 3 northern, \$1.14¾.

Oats.—Ontario, No. 3 white, 47c. to 48c., according to freights outside; commercial oats, nominal.—Manitoba oats (track, bay ports) No. 2 C. W., 51c.; No. 3 C. W., 50½c.; extra No. 1 feed, 50½c.; No. 2 feed, 49c.

Rye.—No. 1 commercial, 94c. to 95c. Buckwheat.—Nominal, 70c. to 71c., according to freights outside.

Barley.—Ontario, malting, 65c. to 66c., according to freights outside; feed barley, 60c. to 62c., according to freights outside.

American Corn.—No. 3 yellow, 83c., track, bay ports; 87c., track, Toronto.

Peas.—No. 2, \$1.70 to \$1.80, sample peas, according to sample, \$1.25 to \$1.50.

Flour.—Ontario, winter, \$4.05 to \$4.15 in bags, track, Toronto; \$4 to \$4.10, bulk, seaboard. Manitoba flour—Prices at Toronto were: First patents, \$6.50; second patents, \$6, in jute; strong bakers', \$5.80, in jute; in cotton, 10c. more.

Hay and Millfeed.

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best grade, per ton, \$16 to \$17; No. 2, low grade, \$13 to \$15.

Straw.—Baled, car lots, \$6 to \$7, track, Toronto.

Bran, \$19 to \$20 per ton; shorts, \$23 to \$24 per ton; middlings, \$24 to \$25 per ton (Montreal freights, bags included). Good feed flour, per bag, \$1.55 to \$1.60.

Wholesale Fruits and Vegetables.

Strawberry shipments were heavy at the beginning of last week with lower prices, but weakened considerably towards the end, and advanced slightly; good fruit selling at 9c. to 11c. per box, and poorer at 7c. and 8c., the lighter shipments being caused by the canners using so much of the fruit.

Cherries increased in quantity and brought high prices the first of the week, selling as follows: black eating cherries, \$1.75 to \$2.50 per 11 qts.; \$1 to \$1.25 per 6 qts.; white eating, 75c. per 6 qts.; \$1.50 to \$1.75 per 11 qts.; sour variety, 75c. to \$1.25 per 11 qts., and 35c. to 60c. per 6 qts. The quality, however, became so poor towards the end of the week that numbers of them were almost unsalable, and prices dropped considerably—the black eating selling at \$1.25 to \$2.25 per 11 qts.; some poor ones going as low as 50c.; the white variety at 40c. to 65c. per 6 qts., and 75c. to \$1.25 per 11 qts. The sour ones bringing 65c. to 85c. per 11 qts., and 25c. to 50c. per 6 qts.

Large, good quality gooseberries sold at fairly good prices, but the small, poor quality fruits were hard to get rid of, as there was no demand for them; the prices now ranging from 25c. to 40c., and 50c. per 6 qts., and 60c. to \$1 per 11 qts.

The California fruits came in freely and sold well; St. John peaches selling at \$2 per case; Bartlett pears at \$4.50 per case; plums at \$1.75 to \$2.50 per case.

The first Canadian beans for this season arrived on the market last Tuesday, and were of splendid quality, selling at \$1.25 per 11-qt. basket, but decreased in price towards the end of the week, as the shipments became heavier, selling at 75c. to \$1 per 11-qt. basket.

New beets and carrots came in more freely, and are improving in quality, selling at 35c. to 40c. per dozen bunches.

Canadian cabbage was of excellent quality, and advanced slightly, selling at \$3.75, \$4 and \$4.25 per case.

New potato shipments continued to increase, and are steadily decreasing in price, closing at \$4.35 to \$4.50 per bbl.

Lettuce was of very poor quality and was a slow sale, selling at 15c. to 20c. per dozen; the Canadian Head variety bringing 40c. per dozen.

Watermelon receipts were heavy, the price ranging from 40c. to 75c. each, according to size and quality.

Oranges were a slow sale, at \$4 to \$4.50 per case.

Lemons remained stationary, Verdellis selling at \$4.50 per case, and Californians at \$4.75 per case.

Montreal.

The trade in the local cattle market was not particularly active during last week, the weather being at times quite hot and unfavorable to consumption of fresh meat. Prices were rather lower than those of the previous week, although the supply of cattle was limited. Demand from butchers was moderate, and sales of best steers took place at 9½c. to 9¾c. per lb., while mediums brought 8c. to 8½c., and common grades down to 7½c. Butchers' cows ranged all the way from 6½c. to 7c. for the commoner, and up to 8½c. for good to fine, while bulls ranged from 6¾c. to 8½c., according to quality. Offerings of sheep and lambs were small, and trade was consequently on the quiet side. The price of sheep, however, was quite firm, with sales taking place at 7c. to 7½c. per lb., and of lambs at \$6 to \$8 each. Calves were in good demand and the market was on the firm side, with sales of choicest taking place at 11½c. per lb., and of good at 10c. to 11c., while the common stock ranged from 6½c. to 9c. per lb. The market for hogs was quite firm, and prices showed a fractional advance. Selects were sold at 12c. to 12½c. per lb., and rough hogs at 11½c. to 11¾c. per lb.

Horses.—The market for horses showed very little change. Demand and

supply were both exceedingly light and prices showed practically no change, as follows: heavy draft horses, weighing 1,500 to 1,700 lbs., \$200 to \$250 each; light draft horses, weighing 1,400 to 1,500 lbs., \$150 to \$200 each; small horses, \$100 to \$125 each; culls, \$50 to \$75 each, and fine saddle and carriage horses, \$200 to \$250 each.

Dressed Hogs.—Offerings of dressed hogs were not quite so large as usual, owing to the smaller supply of live coming forward. Prices, however, continued firm at 16½c. to 16¾c. per lb. for abattoir, fresh-killed stock.

Potatoes.—With the season for old crop potatoes pretty well over prices continued moderately firm with stock selling generally at \$1.80 per bag of 90 lbs. ex-track, with 15c. to 20c. added for smaller lots, ex-store. Demand is beginning to run to American new crop potatoes. These were quoted \$4.50 to \$5.25 per barrel, according to quality.

Maple Syrup and Honey.—The market was steady and demand was not very active. Eight-lb. tins of maple syrup were 85c. to 90c. each; 10-lb. tins, \$1 to \$1.10; 13-lb. tins, \$1.25 to \$1.50, according to quality. Sugar was 13c. per lb. White clover comb honey was 15c., and extracted 12½c. Brown clover comb was 12½c. to 13c., and extracted 10c. to 11c., while buckwheat honey was 9c. to 10c. per lb.

Eggs.—The market was quite firm at the slight advance which recently took place. New-laid eggs were 35c. per dozen; No. 1 selected being 32c.; No. 2, 30c.; No. 1 candled, 28c.; No. 2, 26c., while straight-gathered were 27c. per dozen.

Butter.—Prices were slightly firmer than a week ago, and there was said to be some export demand. Finest creamery sold at 30c. to 30½c. per lb. with fine about ¼c. under, and ordinary creamery at 28½c. to 29c. Dairy ranged from 22c. to 25c., according to quality.

Cheese.—Practically no change took place in prices. Finest Western was quoted at 15½c. to 15¾c. per lb., and fine Eastern at 16c. to 16¼c. per lb., with fine cheese ¼c. below this range.

Grain.—The market for oats showed slightly easier tendency. No. 2 Canadian Westerns were quoted at 54c. to 54½c. per bushel; No. 3 at 53c. to 53½c.; extra No. 1 feed, 53c. to 53½c.; No. 1 feed, 52c. to 52½c. Ontario and Quebec No. 2 white oats sold at 52½c.; No. 3 being 51½c., and No. 4, 50½c., ex-store.

Flour.—The local market for flour continued steady. Prices were unchanged and demand was light. Manitoba first patents were \$6.60; seconds were \$6.10, and strong bakers', \$5.90 per barrel, in bags, flour in wood being 30c. extra. Ontario winter wheat flour was quiet, with choice patents selling at \$6 to \$6.25 in wood, per barrel, and 90 per cent. at \$5.40 to \$5.50, and straight rollers at \$5.10 to \$5.30; 90 per cent. were \$2.55 to \$2.65 per bag, and straight rollers \$2.40 to \$2.50.

Millfeed.—Bran sold at a slightly lower range and was quoted at \$20 to \$21 per ton, in bags, in car loads, with shorts at \$23 to \$24; middlings, \$25 to \$27; pure grain mouille, \$31 to \$32, and mixed mouille, \$27 to \$29.

Hides.—Beef hides were 1c. per lb. higher last week. They were quoted at 21c., 22c. and 23c. per lb., according to quality. Calf skins were steady at 33c. and 31c., and lamb skins were up to 65c. to 70c. each. Horse hides were steady at \$2.50 to \$3.50 each, and rough tallow was 1½c. to 2½c. per lb., while rendered was 7c. to 7½c. per lb.

Cheese Markets.

St. Hyacinthe, Que., 14c.; Belleville, Ont., 15c. to 15½-16c.; London, 14c. to 14½-16c., bid, no sales; Vankleek Hill, 15c. to 15½-16c.; Watertown, N. Y., 14½c.; New York, N. Y., 15c. to 15½c.; Danville, Que., 14c.; Perth, Ont., 15c.; Kemptville, Ont., 15c.

Chicago.

Cattle.—Beeves, \$7.30 to \$11.30; western steers, \$8 to \$9.40; stockers and feeders, \$5.60 to \$8.65; cows and heifers, \$3.75 to \$9.75; calves, \$8.50 to \$12.25.

Hogs.—Light, \$9.50 to \$10.05; mixed, \$9.50 to \$10.15; heavy, \$9.50 to \$10.17½; rough, \$9.50 to \$9.65; pigs, \$8 to \$9.50; bulk of sales, \$9.75 to \$10.05.

Sheep.—Native, \$6.75 to \$8.20. Lambs.—Native, \$7.50 to \$11.10.

Buffalo.

Cattle.—With receipts comparatively light last week, cattle prices showed a general advance at Buffalo, shipping steers reaching a record price of \$11.50, with quite a few sales running from \$11 to \$11.35. In the neighborhood of twenty-five loads of steers suitable for the shipping demand, and these found ready sale. It was an equally satisfactory deal on butchering cattle, the advance on these, as was the case with the shipping steers, being from fifteen cents to a quarter. Best handy, butchering steers ranged from \$10.15 to \$10.40, with yearlings running from \$9.75 to \$10.25. Best heavy heifers sold up to \$9.25, best heavy, fat cows \$8 to \$8.35, and best, handy butchering heifers \$8.25 to \$8.75. Towards the last half of the week, the market weakened somewhat, as the result of a flood of cattle at Chicago on Wednesday, but the decline at Buffalo did not figure over a dime to fifteen cents, and was on the grassy grades. Grass cattle are not as desirable for the killers as the dry-fed kinds, but some of the grassers are better than others, and the result is that the killers are discriminating in the buying of the range stuff. Stocker and feeder trade showed some improvement the last week, as did bulls. Dairy cows of all kinds showed a better outlet, and the market on these is expected to show a better condition right along. Receipts for the week totaled 3,075 head, as against 3,850 for the previous week, and 4,825 head for the corresponding week a year ago.

Shipping Steers.—Choice to prime natives, \$11 to \$11.50; fair to good, \$10.25 to \$10.75; plain, \$9 to \$9.25; very coarse and common, \$8.50 to \$9; best Canadians, \$9.75 to \$10; fair to good, \$9.25 to \$9.50; common and plain, \$8.50 to \$9.

Butchering Steers.—Choice, heavy, \$9.75 to \$10.25; fair to good, \$9.25 to \$9.50; best handy, \$10 to \$10.40; light, thin, \$7.50 to \$8; yearlings, prime, \$9.75 to \$10.25; yearlings, common to good, \$8.25 to \$9.50; best handy butcher heifers, \$8 to \$8.50; common to good, \$7 to \$7.75; best heavy, fat cows, \$7.50 to \$8; good butchering cows, \$6.50 to \$7.25; medium to fair, \$5.25 to \$6; cutters, \$4.50 to \$4.75; canners, \$3.25 to \$4.25.

Bulls.—Best heavy, \$7.50 to \$7.85; good butchering, \$6.25 to \$6.50.

Stockers and Feeders.—Best feeders, \$7.50 to \$7.75; common to good, \$6.75 to \$7.25; best stockers, \$7.25 to \$7.50; common to good, \$6.25 to \$7.

Milchers and Springers.—Good to best, in small lots, \$80 to \$100; in carloads, \$70 to \$75.

Hogs.—Buffalo had a rattling good hog market last week, prices holding well above the \$10.25 mark. The high day of the week was Thursday, when top was registered at \$10.55, with bulk going at \$10.50, and on only one or two occasions did any of the hogs fall below \$10.40, latter price being secured for the bulk Monday, Wednesday and Friday. Pigs held to a high level last week, selling generally at \$10, roughs mostly \$9, and stags \$7.25 down. Receipts last week reached approximately 22,500 head, as compared with 28,314 head for the week previous, and 24,700 head for the same week a year ago.

Sheep and Lambs.—Receipts continued to run very light, not over 2,300 head being marketed last week. Offerings were against 3,658 head for the week before, and 4,900 head for the same week a year ago. Last week started with top lambs selling up to \$12, but before the week was out buyers got choice springers at \$11.50, and culls ranged from \$10 down. Best yearling lambs sold at \$9.50 and \$9.75, top wether sheep could hardly be quoted above \$8, and ewes, which comprised the bulk of the sheep receipts, ranged from \$7.50 down, heavy ones being hard to land above the \$7 mark.

Calves.—Last week started with top veals selling generally at \$12, Wednesday no sales were made above \$11.75, Thursday tops again reached \$12, and Friday, under a red-hot demand, best lots were landed as high as \$13. Cull grades sold well, best desirable ones bringing within \$1 of the tops. Buyers discriminated against weighty calves, and, as a rule, kinds weighing above 200 pounds undersold the more desirable lots of the same quality and finish by from \$2 to \$3 per cwt. Re-

ceipts last week were 2,100 head, as compared with 3,057 head for the week previous, and 2,525 head for the same week a year ago.

Questions and Answers.

Veterinary.

Ringbone.

Three-year-old colt has a ringbone on each hind pastern. I have had them fired and blistered, but he still goes lame. B. S.

Ans.—An animal frequently goes lame for several months after being fired and blistered for ringbone, and then the lameness disappears as a result of the operation. If lameness continues for 10 months after the operation, have him fired and blistered again, and if this fails to cure, all that can be done is to get your veterinarian to perform an operation, known as neurotomy. V.

Lumps in Throats—Arsenate of Lead.

1. Calves 3 and 4 weeks old have a swelling about the size of a man's fist just behind their jaws. They seem to cause difficulty in breathing.
2. What causes this trouble?
3. Other calves had similar lumps which disappeared in a few weeks.
4. Will arsenate of lead kill potato bugs? W. C. P.

Ans.—1. These lumps are enlarged thyroid glands. In many cases they disappear spontaneously. Get an ointment made of 2 drams each of iodine and iodide of potassium mixed with 2 ozs. vaseline and rub a little well in once daily. In cases where there is danger of suffocation, a veterinarian can operate.

2. It is not known just what causes it. Many claim that it is due to the water taken by the cows, containing too great a percentage of lime.
3. This is the same trouble.
4. Yes, and any animal or person who takes it. V.

Puffs on Knees—Indigestion.

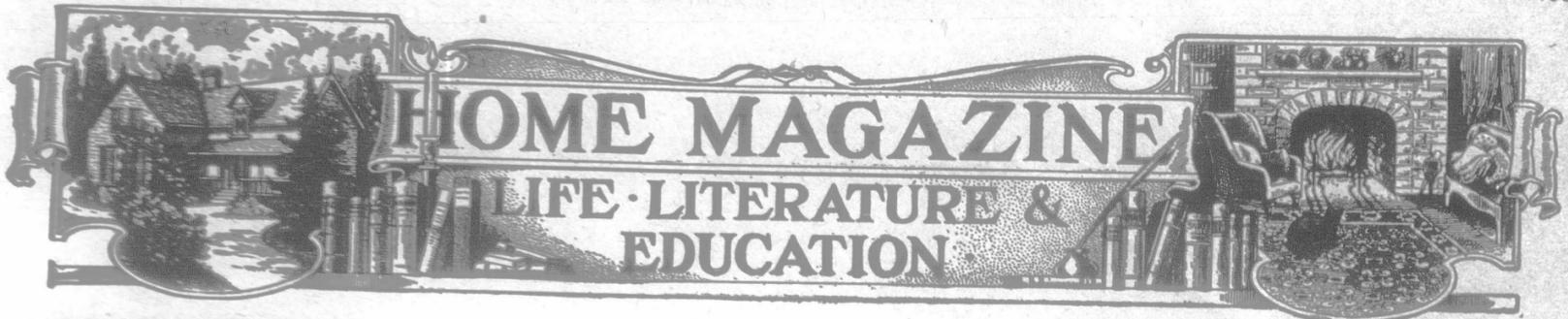
1. Colt when born had soft lumps on the outsides of his knees, and is somewhat weak in the knees. I am told that there are grubs in the knees. Had they better be taken out?
2. Occasionally a cow seems to become dull and fails in milk supply. They are fed bran, oil cake, meal and grass. W. J. M.

Ans.—1. There is no such condition "Grub in the Knees" in colts. Puffs such as you mention are not uncommon, and they gradually disappear as the colt grows older. No doubt your colt will gradually gain strength in his knees. Keep mare and colt in a small paddock by themselves, in order that the colt may take what exercise it needs, but not be forced to take too much nor be liable to rough usage by other horses. If the puffs have not disappeared by weaning time it will be well to use an absorbent.
2. This is caused by indigestion. No fault can be found with the feed. When a case appears give 1½ pints of raw linseed oil, and follow up with 2 drams of nux vomica 3 times daily. V.

Fatality in Cow.

Five days after calving my cow bloated, lost power of the hind legs and died in about 4 hours. A post mortem revealed the afterbirth in her stomach. Why do cows eat the afterbirth? L. W.

Ans.—We cannot tell why cows are inclined to eat the afterbirth, but such is the case. In most cases it does not endanger life, but usually causes digestive trouble and lessens the milk supply for a time. In rare cases it does not digest, especially the arteries, stops up the passage from the stomach into the intestine and causes death. Either this or an attack of milk fever, caused death in your cow. The latter disease would not be likely to cause death so soon, unless medicines were given by the mouth. In which case a portion of the fluid would be very liable to pass down the windpipe to the lungs and cause death. This occurs from the fact that in these cases the patient loses the power of swallowing. It is always wise to endeavor to prevent a cow from eating the afterbirth, by keeping her tied until it is expelled, and then removing it. V.



General Sir Douglas Haig,
Commander-in-Chief of the British forces in
France and Flanders.

An Orchard in Rain.

BY HORACE HOLLEY.

I stood within an orchard during rain
Uncovering to the drops my aching brow:
O joyous fancy, to imagine now
I slip, with trees and clouds, the social
chain,
Alone with nature, naught to lose or
gain
Nor even to become; no, just to be
A moment's personal essence, wholly free
From needs that mold the heart to
forms of pain.
Arise, I cried, and celebrate the hour!
Acclaim serene gladness; if it fall,
New courage, nobler vision, will survive
That I have known my kinship to the
flower.
My brotherhood with rain, and in this
vale
Have been a moment's friend to all alive.
—Forum.

Travel Notes.

(From Helen's Diary.)

Les Avants, Switz.
May 21, '16.

The Narcissus Fields.

No matter how high up you go in
Switzerland there is always something
higher. Here am I, 3,300 plus some-
thing up, and it just seems like a be-
ginning. Far, far below I can see the
roofs of Montreux, and the beautiful
blue lake of Geneva. Across the lake
gleams the *Dent de Midi* with its
seven jagged snow-caps. All around
rise enormous precipices and awe-in-
spiring peaks.
Les Avants is a sort of hole-in-the-wall
protected on all sides but one by tower-
ing mountains. The steep slopes of
these mountains are now emerald,
except where they are covered by great
patches of white. Seen from the valley
these white patches look like snow,
but when one reaches them the snow
changes into a field of white stars,
and the air is full of a delicious fragrance.
These white patches are the Narcissus
fields.

In Montreux the Narcissus Festival
is one of the events of the season.
But not this year. The war has killed
all the Swiss festivals.

The Narcissus grows at an altitude
of about 3,500 feet. Its season is
very brief, just a few weeks, but while
it is in bloom, thousands of people
visit the high Alps expressly to see
the beautiful sight. Visitors are allowed

to wade in the fields and pick as many
flowers as they can carry. The fields
are easily reached by the mountain
railway, and the majority of visitors
go that way. Some ride up and walk
down. But crowds of people make the
entire trip on their own two feet.
The Swiss begin to climb early in life.
They have to. And they keep right
on till they get to be a hundred or so.
I saw venerable couples (probably they
were somebody's great-grand-parents)
tramping over the hills to-day, with as
much ease as if they were on level
ground. And I saw many family
parties on the mountain paths, and
the rosy-cheeked little tots of three
were jogging along on their chubby,
little legs with just as much vigor as
their elders. Occasionally papa would
carry the youngest a-straddle his neck
for a bit if the path was very steep. The
Swiss walk up and down precipices
as easily as a fly meanders across a
ceiling. One of their greatest delights
is to start up a mountain at midnight,
and reach the summit for the sunrise.
I think some of the people I saw sound
asleep on the Narcissus slopes must
have been pedestrians of that ilk.

This is Sunday, but I think all the
churches must be empty, because every-
body seems to be here. Special steamers
and special trains have brought thou-
sands and thousands of people to Les
Avants to see the Narcissus fields,
which just now are at their best. Every-
body is gay and happy and loaded with
flowers. The streets of the village are
crowded, the restaurants are crowded,
the shops are crowded, and people
are swarming all over the mountain
slopes. Except for the presence of the
French soldiers in their uniforms one
would almost forget there was a war.
But the invalid soldiers are here to
prove it. This is the part of Switzer-
land where so many of the French and
Belgians are interned. What a glorious
change for them to be free to roam
over these flowery hills after months
of captivity in German prisons!

All the way up the mountain from
Vevey French soldiers were ever in
sight. They were strolling alone, in
couples, in groups; they were standing
at the stations, staring out of windows,
and trudging along the road, often ac-
companied by admiring children. The
passengers in the train were in a con-
tinual state of waving their handker-
chiefs out of the windows, the soldiers
responded with the military salute and
smiles. I never saw so many limping
men in my life, but even those on
crutches seemed to get over the ground
pretty fast. Some of them looked very
ill, very pale and thin and haggard,
and about every third soldier I saw
had his ears stuffed with cotton wool.

The interned soldiers are not under the
control of the Swiss military authorities.
Within certain defined areas they are
allowed perfect freedom. They are
domiciled in groups in various pensions
and hotels, according to their rank.
The ordinary soldiers who are not too
ill are obliged to do a certain amount
of work every day. Some of them work
in the fields, some of them do the house-
work. I saw one group chopping wood
at one of the stations. The officers
are usually assigned quarters in the
best hotels, and are allowed to have
their families with them. In this
hotel the third and fourth floors are
reserved for French and Belgian officers.
They mingle freely with the guests.
Most of the officers have terribly scarred
faces, but otherwise seem to be leading
an easy life.

At Interlaken there are so many
French officers interned that arrange-
ments are being made to start a special
school for the French children who are
there with their parents.

There are now in Switzerland twenty

thousand invalid soldiers from the bellig-
erent nations, and more are coming.

Monday afternoon.

Such a change from yesterday! To-
day all is quiet and serene. No people.
Hardly a sound.

I am sitting on the terrace in front of
the hotel having tea—alone.

At the end of the terrace is a French
officer having tea—alone.

Now, if only there was a table in
the middle, a small table, just for two,
and we were both at it, how much
more inter—

Toot, toot! Squawk, squawk!
An auto comes crashing up to the
hotel.

A party of four get out, take the
table next to me, and order tea.

They are English—elderly. There is
a fat man with a thin wife, and a thin
man with a fat wife. Makes me think of
the nursery rhyme about Jack Spratt.

Now, I will probably be entertained
by high and noble utterances. They
will, of course, talk about the war,
about the mix-up in Ireland, about the
colonies, about the British prisoners in
Germany, about President Wilson, and
what he ought to do.

That is what I thought they would
talk about. That is the sort of con-
versation I expected to hear from four
gray-haired, sedate-looking English peo-
ple.

What they really did talk about was
—cake.

From their uplifting remarks on this
sweet subject I gathered that in Vevey
there is a little shop near the English
church where a perfectly delicious kind
of jelly-cake is made. The fat man
expatiated so eloquently on its extra-
ordinary merits that my mouth fairly
watered. (I was munching sawdusty
biscuits at the time.)

The thin man then spoke up and told
about a place in Montreux where they
made a gingerbread that simply couldn't
be beat.

The comparative virtues of jelly-cake
and gingerbread were then discussed
animatedly by the entire group, but
the ladies advanced the idea that
sponge-cake was better than either.

"Too dry," said the fat man, crush-
ingly.

He then explained in what he con-
sidered very clever humor that he and
his wife could never agree about cake,
but in spite of this difference of opinion
they had never seriously considered the
question of divorce.

"Have we, Dear?" he asked.

"Don't be silly!" said Dear.

The question of cake having been
discussed exhaustively, another subject
was introduced.

This time it was camp-stools.

The stout gentleman, it seems, was
not a good "stander." So, whenever
he went any place where there was apt
to be a shortage of seats, he took a
camp-stool with him. There was a
certain kind of camp-stool, he said,
light, portable, with a back, which he
considered the best on the market.

The thin man was glad to know about
it, and wrote down the name in his note-
book.

While this was going on the two
women fell into a wrangle about the
date of the heavy snow storm in April.

The men having finished camp-stools,
entered the discussion with great vigor.

"You know, Dear," said the fat man,
"it was the day after we took that
auto run to Lausanne."

Dear said she thought it was the
second day after.

The fat man took two or three gulps
of tea, by way of protest, and changed
the subject.

This time the topic was semi-religious
in character. It was church collections.

How to wring more money out of the
church-goers—that was the point.

From how to get money, the con-
versation changed to how to save money,
the especial form of economy discussed
being "tips."

The fat man had very pronounced
views on this subject. He explained
them at great length, and emphasized
his remarks by bringing his forefinger
down on the table with such energy
that the cups danced a jig in the saucers.
He didn't believe in indiscriminate tip-
ping. No, not he. The proper way
to do was this, etc., etc. The ex-
planation was so long and tiresome that
the thin man began to yawn, and the
thin man's wife grew restless.

Then Dear, with great tact, said, in
a mild sort of voice, that she really
thought it must be time for them to
be going.

Toot, toot! Squawk, squawk!

And off they went down the hill.
And again there is quietness and
serenity and peace.

Geneva, May 31.

The English soldiers are in Switzer-
land. They came yesterday. The
Geneva papers announced to-day in big
headlines that the "Tommies" had
arrived.

The Swiss people received them with
tremendous enthusiasm. At Zurich there
was an enormous crowd to meet them.
They were showered with flowers and
loaded with presents.

The train reached Berne about mid-
night and halted there two hours.

Berne is the most pro-German spot
in Switzerland, but in spite of this there
was an immense gathering at the sta-
tion to see and welcome the English
soldiers. Although many of them were
terribly wounded, their dignified appear-
ance made a great impression on the
people. A lunch was provided for them
in the station cafe, but many of them
were too ill to leave the train.

More flowers, more presents.
At Lausanne the same, at Vevey the
same.

At Montreux they breakfasted at six
o'clock on the terrace of the Hotel



William Tell.
The national hero of Switzerland.

Suisse, to the inspiring strains of "Tipperary." So great were the demonstrations of sympathy at Montreaux that the British soldiers were quite overcome. In spite of their heroic efforts to restrain their emotion the tears welled up in their eyes and rolled down their haggard cheeks.

At eight o'clock they took the mountain train for their destination—Château d'Œx, a little town near Les Avants. Every station along the route was crowded with natives and French soldiers waiting to welcome the English.

In this convoy are 304 men, including thirty-two officers. There are a number of Australians and Canadians, some Sikhs and Gurkhas, and two Japanese. Fifty-four of the soldiers have been sent to Leysin for treatment.

In a week or two we expect to take a trip on the Berner-Oberland, and stop off at Château d'Œx to see the British soldiers.

Mexico.

In view of important developments that have seemed imminent between Mexico and the United States, it is interesting to note that the troublesome, southern country has an area of 767,323 square miles, with a population of 15,446,000, or 20.13 to the square mile.

About seventy years ago the United States, during a somewhat similar period of disorder, made war upon Mexico, and, after desultory fighting covering two years, took as indemnity the areas now known as the States of Utah, New Mexico, Arizona and California, in addition to Texas, annexed a year before war was declared, a total of 918,000 square miles.

For the last three years the Mexican Republic has been torn with civil strife, and the lives of several Americans and other aliens have, from time to time, been sacrificed, chiefly by marauding Villa bands. Carranza did nothing to prevent, so when, finally, outlaw raids were made into American territory, a punitive expedition of American soldiers was sent into Mexican territory. On June 21st two troops of these, belonging to the Tenth Cavalry, a colored regiment, were even fired upon by Carranzista troops near Carrizal. Immediately two troops of the Tenth Cavalry, under Captain Boyd, marched into Mexico, but were practically surrounded by Mexican troops, a development which was met by President Wilson by an order for the mobilization of all the militia of the United States to resist, if necessary, invasion from the Mexican border. War seemed at hand, but on July 5th, a conciliatory note from Carranza was received at Washington, and for the present the crisis appears to be averted.

Of the total imports into Mexico, says the New York Times, 47.8 per cent. are from the United States, which takes in return 75.8 per cent. of all Mexican exports. The imports into the United States from Mexico for 1915 totalled \$77,612,691 in value; the exports into Mexico from the United States amounted to \$34,164,447.

Mexico exports chiefly sisal fibre, crude oil, cattle and hides, copper, coffee, and guayule rubber. The most important of these, perhaps, is sisal fibre, largely used in the making of binder twine.

Hope's Quiet Hour.

A Remedy for Pin Pricks.

I cried unto the Lord with my voice. . . . I poured out my complaint before Him; I shewed before Him my trouble.—Ps. 142 : 1, 2.

Sometimes the cure works in an unexpected fashion. God is not like an indulgent father. He never encourages self-pity. One day I followed the example of the Psalmist and received rather a shock. I had been nursing a pin-prick trouble, until spiritual blood-poisoning had set in and it became really very painful. Like a hurt child I took my complaint to the Great Father and showed Him my trouble. Looking up to Him for consolation and sympathy I seemed to see Him take up my tiny

trouble and hold it up with grave sternness against the dark background of the world's agony. Like a flash I saw multitudes of wounded soldiers, laughing and joking in the crowded hospitals. I saw mothers and widows bravely lifting their heavy burdens of anxiety and sorrow. My Master—Whom I was professing to follow—thinking of the sorrow of others until He almost forgot His own awful agony. Do you wonder that I was filled with shame

as she drove to the cemetery to-day? Of course, she saw the rain, but it was a matter of utter indifference to her. The small discomfort was forgotten in the great sorrow.

Many pin-prick troubles and worries will vanish of themselves if we refuse to look at them. Perhaps someone has wounded your feelings and you go over and over the matter in your mind, pitying your poor ill-used self, raking up all the kind things you have done

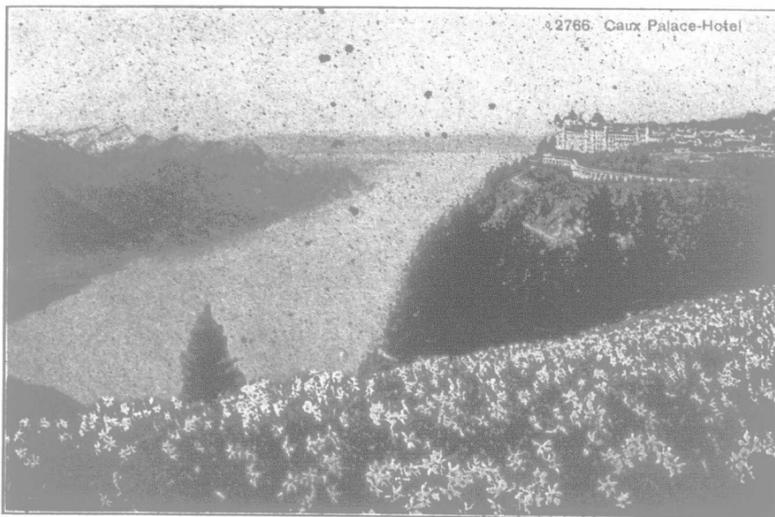


Swiss Scene in Narcissus Time.

and asked God to forgive my selfish complaining, to throw my tiny trouble behind His back and forget that I had mentioned it? Does a soldier on the battlefield go to his general for sympathy because he has cut his finger? If he could be such a craven, do you think the general would give him sympathy, or a stinging rebuke?

Yes, the cure for troubles—large or small—is to bring them before the Lord.

for the offender, and all the reasons you can see why you should have been treated with consideration. The sore festers and the poison spreads, until you have succeeded in making yourself miserable. Why do you treat the infected spot yourself? Why don't you "complain to the Lord," instead of complaining to all your friends? As I said, He may not encourage you in your unhealthy occupation of brooding



Narcissus Fields near Caux.

Caux (3678 ft. altitude) is a resort directly above Montreaux. The building on top of the precipice is the Palace Hotel. All around it on the edge of the bluff is a magnificent stone terrace, electric-lighted at night.

But, if we lay our small troubles at His feet, we may find that they shrink away until we can't see them at all. I have just come in from a funeral. A poor woman lost her husband a year ago—he was killed by German gas, in Europe—and this week her little boy was drowned. Do you think that poor, weeping mother noticed that the rain was coming down in torrents,

morbidly over your troubles. He may say to you, as He said to me: "Look at the wonderful courage and endurance others are showing!" Then you, also, may stay at His feet in ashamed penitence, asking Him to forget that you had made a fuss over a trifling pain. Someone has mentioned a number of little things which are hard to do, and yet are worth learning to do well.

"The person who can go without her dinner and not advertise the fact, who can laugh at little troubles, who makes light of a heavy weight, and can wear a shoe that pinches without anyone being the wiser; who does not magnify the splinter in his finger into a log of wood, nor the mote in his brother's eye into a beam; who swallows bitter words without letting others taste them; who can give up his own way without giving up the ghost; such a one surely carries a passport into the good graces of mankind."

Talking about our pin-pricks certainly doesn't make them easier to bear, and our friends are apt to consider us a nuisance when we are always looking for sympathy.

A clever young lawyer was dying by inches. He faced the future bravely, though it was hard for him to sit with folded hands while others were "doing their bit." His point of view was expressed in this way: "I guess about the only thing left for me to do is to be as pleasant as I can." So he also did his bit to uplift the world. If we are going to be as pleasant as we can we must never coddle our pin-pricks. Even to do this in silence and secrecy is to be a loser in life's battle. We hear a great deal about the splendid courage and patience of the wounded soldiers, but there must be a few who grumble and complain. Aren't you glad that no one is unkind enough to publish their complaints or record their groans? We are always ashamed when we have failed to bear pain well; let us try to forget it as quickly as possible when other invalids are cranky and impatient. Patience is a very difficult virtue to acquire, and it is very dear to our Lord. We often hear those who are "shut in" say: "I wish I could only do something, but I am helpless." Do you remember our Lord's message to the churches? To Ephesus He said: "I know thy patience. . . . and hast patience." To Thyatira He said: "I know . . . thy patience." To Philadelphia He said: "Thou hast kept the word of My patience."

Is He saying that of you?—I know only too well that He has little reason to say it of me. But our chance is not yet over. We have still the right and the opportunity of bringing our troubles to the Lord. If they are really great troubles He will give us strength to endure them bravely, and if they are only pin-pricks (though at present they may seem really important to us) He will hold them up until we see them in true proportion, and shall be ashamed to complain.

There is one thing we should fight against with all our might, and that is the bad habit of complaining about our troubles. It may seem to be only a trifling sin, and yet when the Israelites complained over the very real hardships of their wilderness journey, "it displeased the LORD: and the LORD heard it; and His anger was kindled." He has not changed, and He still hears all murmurs and complaints which His people so easily engage in.

"Don't complain about the weather,
For easier 'tis, you'll find,
To make your mind to weather
Than weather to your mind.
Don't complain about the sermons,
And show your lack of wit;
For, like a boot, the sermon hurts
The closer it doth fit."

DORA FARNCOMB.

The following lines were written by one of our readers:

A Prayer

Oh! Father dear, draw near to me and hear
The humble prayer of this Thy little child,
Help me to feel that Thou art always near
And make me honest, truthful, good and mild.

Lord, in the early morning of my life I come to Thee,
(Oh! hear my prayer) to have my sins forgiven,
Would'st clasp my hand in Thine and comfort me,
When life is dark, and write my name in Heaven.

And when the sun shines bright, no cloud is in the sky,

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When life is one glad song from morn-
ing until night,
Then help me still to feel that Thou art
nigh
And keep the image of Thy Heavenly
face in sight.

Teach me to feel another's bitter woe,
to hide the fault,
I see in those whose hearts are wrung
with bitter pain,
To give a friendly hand and try my
best to show,
The sun has always shone again, how-
ever dark the rain.

And when at last my earthly toils are
o'er, and I can see
By my declining strength that earth
will soon know me no more,
Then may I gently sink to rest as does
the setting sun,
And be at peace with Thee at last,
forevermore.

WILD ROSE.

Dear Miss Farncomb.—Last Christmas
time, I gave each of my pupils at school
a bright new copper with the word "Save"
written on it. The idea was this: They
were to put it in some box or dish and
with it place from time to time any
money which they received. At the
end of the term they were to bring back
to me one tenth of their savings and
I said we would send this tenth to some
poor children in the city. I am enclosing
\$1.50 and am asking you to do the
great favor of using this small offering
in some way to help an unfortunate
child and bring her or him some little
joy as a gift from my children.

D. M.

The above letter speaks for itself.
Those children are early learning the
joy which comes from laying up treasure
in heaven. The givers will get more
pleasure out of the money than the
child who receives the gift. With thanks.
HOT E.

Fashions 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 ap-
peared. Price fifteen cents PER PAT-
TERN. If two numbers appear for
the one suit, one for coat, the other
for skirt, thirty cents must be sent.
Address Fashion Department, "The
Farmer's Advocate and Home Maga-
zine," 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 ap-
peared.....



8632 Skirt with Plaits
at Sides,
24 to 32 waist.



8723 Blouse with or
without Over-Bodice,
34 to 42 bust.



8676—Gown with circular flounce; 34 to
42 bust.



8636—Empire gown; 34 to 42 bust.



8915 Two-Piece Skirt
with Yoke for Misses
and Small Women,
16 and 18 years.



8839 Child's Dress,
6 mos. or 1 year 2 and
4 years.



8975 Child's Night
Gown,
2, 4 and 6 years.



8539 Infant's Wrapper
One Size.

The Beaver Circle

The Round Robin.

BY E. BARNES IN ST. NICHOLAS.
We, Robin of the Maple Tree, and
Robin of the Hill,
And Robin of the Current Bush, and
Robin by the Mill,
And Robin of the Berry Patch, and
Robin up the Lane,
And Robin in the Lilac Top, and Robin
in the Grain,
And Robin underneath the Eaves, and
by the Chimney Stack,
And Robin at the Barnyard Gate, and
o'er the Feeding Rack,
And Robin of the Cowshed, and Robin
of the Pen,
And Robin of the Corn-field, and Robin
of the Glen,
And of the Brook, the Lawn, the Hedge,
the Silver Birch, and Green,
The Cedar Grove, the Ridge, the Slope,
the Grape-vine, and Ravine—

Do, one and all, without dissent,
Make protest once again,
Against the slayers of the babes.
Which we, with might and main,
Are trying hard to hatch and raise,
As careful parents should,
In all the good old-fashioned ways,
Of any decent brood;
To teach them to consume the pests,
The flies and grubs and bugs,
The beetles, borers, and the mites,
The vicious worms and slugs.

We only ask you half a chance,
Together and apart,
As tender husbands and as wives,
From out a swelling heart.
We make petition for our rights;
You could not live at all
If fields and gardens, fruit and trees
Were spoiled by things that crawl.

Little Bits of Fun.

It was the first time that the polite
little girl had been on a visit alone, and
papa had carefully instructed her as to
how she should behave.

"Now," he said, "if they ask you to
dine with them, you must say: 'No,
thank you, I have already dined.'"
It turned out just as papa had antici-
pated.

"Come, Marjorie," her little friend's
father had said; "you must stay and
have a bite with us."
"No, thank you," said the small
miss with dignity; "I have already
bitten."

Betty was playing in the sand-pile.
She began to throw shovelfuls of sand
upon the flower-bed. Her father remon-
strated. "Aren't you going to be my
good Betty any more?" he asked. "Yeth,"
answered that young lady, continuing her
occupation, "I'll be your good Betty
when I'm fru frowning thand."—Harper's
Magazine.

Some More Competition Letters.

Dear Puck and Beavers.—I have been
wanting to write and join your Circle
for some time, but have kept putting
it off, so here I am at last. I am sending
you a story and hope I have success with
it. Here it is:

Their First Fishing Trip.

It was a beautiful morning, and the
sun was shining brightly down on the
green grass and flowers.

Four children skipped happily across a
wide lawn in front of a small cottage,
and they were happy because they were
going fishing to-day for the first time in
their lives. The names and ages of the
children were, Willie age 11, Gladys
age 9, Gerald age 7 and Harry, age 5.
They had never been in the country
until this summer and they were to go
fishing to-day. When they started it
was ten o'clock and they took a path
through the woods. Mother and Gladys
carried the lunch baskets, and the boys
took the rods and bait.

In about a half hour they came to a
stream with green mossy banks. Many
pretty flowers grew here too. In this
stream trout were to be found in great
numbers. The children clapped their
hands when they came to this place; it
was much prettier than the parks they
had seen in the city they said. The
boys wanted to begin fishing at once,
as it was near eleven o'clock, so they
could have fish for dinner. Willie got
a bite first and drew up a large speckled
trout. How proud he was over the
first fish he had ever caught in his
life! Gerald caught a fish next and by
the time they were ready to build the
fire for dinner they had caught ten
trout. Gladys and mother got lunch.
They had chicken sandwiches, the trout
they had caught, frosted cakes and
fruit. The boys found a spring of cold
clean water near by and they had that
to drink.

After dinner they caught more fish,
even little Harry caught one. They put
them in their empty lunch baskets to
take home for dinner to-morrow. Then
they gathered some flowers and moss
and went home. It was four o'clock
when they got there, tired, but well
pleased with their first fishing trip.

ANNIE ALMEADA RANDALL,
(Age 14 years.)

Randall Corner, Sunbury County, N. B.

A Fishing Trip.

"Well Bertie, you can't guess what
father told me," said Eva as she came
running out of the house in a gleeful
manner, and almost out of breath.
"Don't know," said Bertie, "But you
look as though someone has left you a
fortune. Why what did he tell you?"
"Well" said Eva, "you know that
river that goes through aunt Mary's
farm down near that big city."

"Just guess I remember it a good lot
better than you do, why Billie and I
used to make toy ships to sail down it.
But what about it anyway?"
"You see next week the holidays
begin" replied Eva, who could hardly
wait to tell the good news, "papa's
going to take us down there for a week or
so; he says it will make mama stronger,
to get out into the country air, and we
can fish in that river."

"What a most perfectly lovely idea,
you'd think he'd heard me say that
I just wish I was out at aunt Mary's,"
said Bertie.

"Well he didn't anyway," said Eva,
"but let's go in the house and get ready

for school. It's eight o'clock, time we were off."

Both the children went to school but neither of them could work, and Mary, who was usually bright in figures, had to stay in to correct her work. Monday came and found the children and their parents ready to start for aunt Mary's place.

"Hurry now Bertie, or we'll miss the train. Where's your hat?" Bertie found his hat and by nine o'clock Mr. and Mrs. Harwood and the two children were on the train. Two hours had elapsed before the conductor said they were at M———"Here we are" said Mr. Harwood, and they got off the train.

"Why there's uncle George with the buggy, already waiting for us," said Bertie. Soon they were safely in the buggy, after many joyous and welcome words between the relations, and were on the way to Uncle George's.

"Well, well! How Eva has grown!" exclaimed Aunt Mary, when Mr. and Mrs. Harwood, Uncle George, and the children reached the large white country house. When dinner was ready everybody sat down. "What a delicious dinner" thought Bertie, as he filled up his plate with the second lot of potatoes.

"How'd it be we'd all go a-fishing this afternoon?" suggested Uncle George.

The exclamations of "oh yes," and "let's," and "goodie! goodie!" carried out the plan and when the dishes were done off they started to the river at the back of the farm, with five fishing-rods.

"Good job we've got lots o' poles," said Billie, Bertie's cousin, "or we wouldn't have half the fun." Pretty soon everybody was sitting down on the bank and the ones that didn't have fishing poles were enjoying themselves at picking flowers.

"Look, Look!" exclaimed Bertie, "what kind of fish is this daddy?"

"Why that's a trout," said Mr. Harwood, "Look! Bertie caught a trout." "Well I never" said Uncle George, "That's the first trout I ever saw in this river, why Mr. Brown, a man as old as he is, says that never in his life has he caught a trout in this river."

"Here mama, you may have my pole" said Eva, after she had caught three or four fish. "I'm going to take off my shoes and stockings and wade in the shallow water."

Eva had a lovely time playing in the water, but once she slipped on the slippery sand and splash she went into the water, head foremost. "Oh!" exclaimed Mrs. Harwood as she reached and caught hold of Eva's dress and pulled her out. The frightened little girl knew not what to do or say as she stood on the bank with everybody around her. "Guess I'll take you up to the house," said Aunt Mary to Eva, "And don't one of you folks bother your heads about us, but just go on with your sport." So saying Eva and Aunt Mary went to the house.

"Let's see who's caught the most fish," said Bertie, "I've only got two."

"I've got five," said Billy.

"I've got five too" said Billie's aunt,

"And that's twelve," said Billie counting them on his fingers as he was very slow at figures. "And father and Uncle George have a whole lot," said Bertie.

The fishers went up to the house and found Aunt Mary and Eva getting supper ready. "Surely it's not supper time!" said Mrs. Harwood. "But what an enjoyable time we've had."

The children ate a hearty supper and Aunt Mary heard Bertie whisper to Mary, "what a lovely story we'll have to tell the city children when we go home."

AMY C. PRINCE, age 14.
R. R. No. 1, Petrolea, Ont.

Competition I.

What I Want to Do.

Dear Puck and Beavers.—As the subject for the new competition is, "What I want to do when I grow up, and why." I thought I would try my luck.

When I grow up I want to be an artist, and the reasons for it, are that I have a talent for drawing, especially animals. I am taking painting lessons now, and am at my fifth picture. I am painting

in oils, and I am going to take lessons in charcoal also. My teacher's name is Mr. Thurlow. I have taken first prize for the last three years at our township fair, also I got second prize at the adjoining township fair for two years.

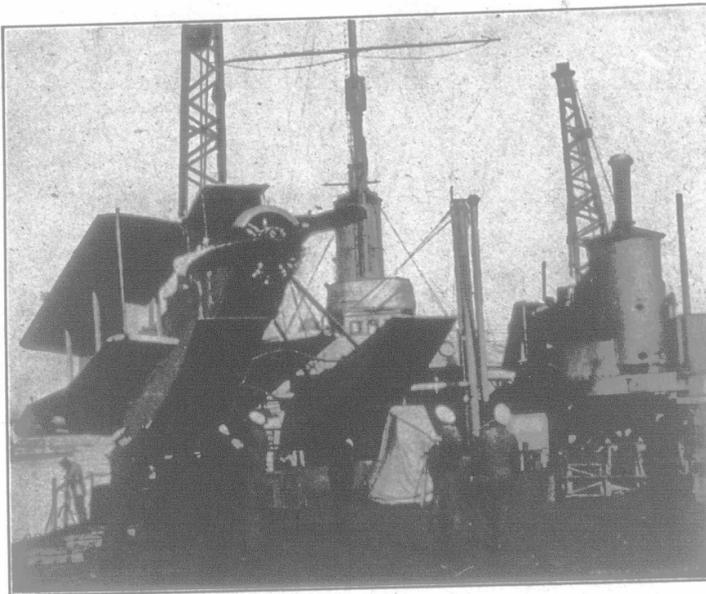
Some day I hope to be good enough to give lessons. At least that is my ambition. Well Puck, I guess this is all for this time, hoping to see this in

white rabbit and some Belgian hares. We have 11 horses, two of them are black Percherons, imported from France. When the colt was 4 months old it weighed six hundred pounds. My father has all the work to do himself, our hired man left last fall on account of the war. He is engaged in making shells. I go to school every day. Our teacher's name is Miss McDonald. We like her fine. At the end of the next year we

cross and bore the pain of the cruel thorns which He wore, and nails which were driven through His hands and feet to bring them to His arms and to bless them and so they might have a home with Him. To tell the heathens He is the heavenly Father.

Then I would gather little bands of heathen boys and girls, and learn them to read and write and do arithmetic. I would teach them of God's love and pick out the Bible stories to tell them. I would get them to memorize verses and sing the children's hymns, and to encourage them I would offer prizes to the reciter or the one who knew their lessons best. I would teach their parents to despise idols also, and to worship nobody but God. This is my greatest wish, which I hope may be carried out someday.

Truly Yours,
LILIAN R. FRANKLIN, age 15.
Cape Rich, Ont.



Lowering a British Hydroplane from a Battleship in Salonika Harbor.
International Film Service.

print, and wishing the Beavers every success. I remain,

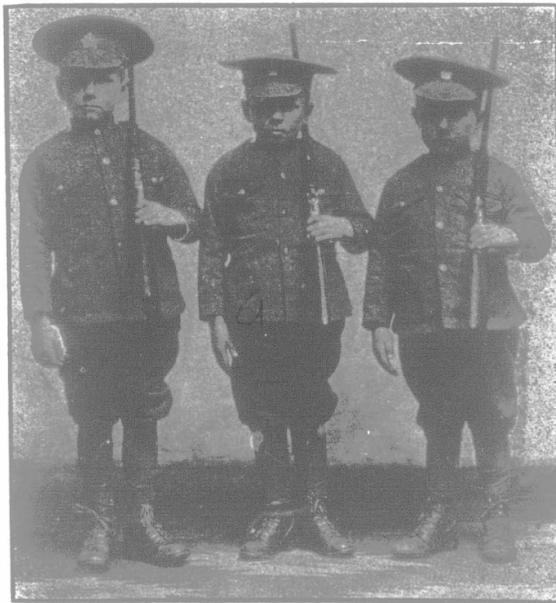
LORENCE GOSNELL,
(Sr. III Class.)
R. R. No. 1, Highgate, Ont.

are going to get an attendance prize. I hope the w. p. b. is full so as it won't hold mine.

EVELYN LYONS, Book III, age 10.
R. R. No. 2, Dundas, Ont.

Dear Puck and Beavers.—This is my first letter to your charming Circle. My father has never been without "The Farmer's Advocate" since he was a boy, and we like it fine, as soon as it comes every week I want to read the Beaver's letters, and I thought I would enter the new competition. What I want to do

Dear Beavers.—I have never written your circle a letter, but I tried your story on "The Dog" and succeeded in gaining a prize and I am much ashamed to say I never sent thanks, but I will send them now. Many thanks to the editor for sending prize. I like writing stories very much and I am going to write this one.



Three Little Soldiers.

Sons of Mr. J. F. Costello, Branchton, Ont.

when I grow up—and why. When I grow up, I want to be a stenographer and if I fail in this, I am going to stay at home on the farm, as I am a farmer's only child. My heart's desire is to have a pony, and on the farm is the place to be, where you can grow the feed. I like living in the country best, because I can keep pets. My pets are two kittens, (their names are Jack and Jill,) one

What I Would Like to do When I Grow up and Why?

What I would like to do is to go through high school and a college where I could study the Bible and have difficult passages explained to me. Then when I got about nineteen or twenty I would go to the countries where the heathens are who worship idols to teach them of God's love and how He died on the

[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.]

The Ingle Nook.

Dear Ingle Nook Friends.—I am in a bit of a quandary this morning. As a matter of fact everyone who sits in an editorial chair, except, possibly, a news editor, is sometimes in a bit of a quandary. The trouble is, not the writing of things, but the knowing what to write about—just what will interest that far-off, shadowy, yet very real audience that will read the words when "the paper" goes out on its various journey.

Perhaps, this morning, a chat, just as though you all dropped into the den with your knitting, will do as well as anything.

Of course we're going to talk about war-work—you couldn't be in London these days without talking about it—not only because the city is swarming with soldiers, but because the chief topic of interest to the women workers for the last three weeks (I write on June 30th) has been getting the Western University Hospital ready for the field. All the doctors belonging to the unit have been here, hurried in from various parts of Ontario, and all the women workers have been feverishly busy, working night and day, many in St. Andrews Hall (the hall of the church in which "Marian Keith's" husband preaches), many in the various Red Cross rooms of the city, many in the Daughters of the Empire rooms, and many more in the homes—all busy as bees, making sheets, pillow cases, pajamas, and thousands upon thousands of bandages and dressings for wounds of all shapes and sizes. For the time knitting has been in abeyance, and everything subordinated to preparing for the new hospital. It will be known as Canadian Stationary Hospital Number Ten, and will be under the efficient management of Dr. Edwin Seaborn, one of the best known surgeons in Western Ontario.

Living on Less.

The other day a woman who has entertained and been entertained a great deal, said, "One thing the war is doing—simplifying our way of living; we are willing to live on less. Two years ago people thought they had to be very much dressed up to go to a tea; now they go, often, in a plain shirtwaist and skirt. Refreshments are simple and a very few flowers take the place of the elaborate decorations there used to be."

Of course it was a city woman who was speaking, yet example radiates, to some extent, from the cities to the country; even the country may have arrived at a halt in a movement, unmistakable in some districts, towards a luxuriousness in living that was becoming a dominant factor in city life. In short, to quote a writer dealing with the same topic in England, we have come appreciably towards the end of "humbug." Simpler clothes, fewer amusements, but, perhaps, more real living are the hall-mark of the new order. We entertain less, but when we do we take care that we surround ourselves with real friends. We save in many ways, but yet not selfishly since our saving is but that we may give more to alleviate suffering. The spare hours of many of us are given over towards doing actual work for the Red Cross. And yet, it may be that the lessons learned in economy may be well carried over into the time of peace. Real friends, home-like entertainment, books and gardens mean more, after all than the strain of fashionable, or still worse, would-be-fashionable, living.

Almost any woman with a "head" should be able to think out plans for real economy, and yet, strange to say there are a few who begin quite at the wrong end. One makes a start, for instance, by cutting down her allowance for church and charities, a method sure to be rather hard on somebody. Another scrimps on the food supply—sells all the eggs, cooks very scrappy allowances of meat, and never dreams of making up the deficiency in proteid foods in other ways. This last is very poor economy. People must be well fed if they are to work well. They must have a nutritious and varied diet. True, rich pastry, cake and pudding, may very well be left out, in this war-time or any other time, but there must be a sufficiency of meat and potatoes, eggs and milk, porridge, bread and butter, fruit and vegetables of as many kinds as possible. If meat is reduced to a minimum, eggs, cheese, beans and milk soups and puddings must be called upon to make up the proteid elements needed for the human body; the scientific cook will see to it, also, that vegetable oils supply the needed amount of fat.

In some places where fuel is an expensive item, the fireless cooker may be called upon to help. The "bought" ones are, of course, the best, but the home-made ones are not to be despised. Indeed in Germany, we are told, "all the war cook-books tell the 'Hausfrau' how to make them". The kind described in these war-books is not the "hay-box" known here, but a sort of bag arrangement made of cotton or flannel lined with twelve layers of paper. The saucepan with its contents, boiled from 5 to 20 minutes, as necessary, is slipped into the bag, a closely padded cover put over, and the whole carefully wrapped and left where the wind or cold air will not strike. Porridge, stews, anything that is the better for slow cooking, may be left over-night in these cookers and merely re-heated for using.

Meat is to-day almost a luxury. Porterhouse steaks, sirloin roasts, and choice chops all cost; one has to pay for flavor. But all of the cheaper parts are quite as nourishing, and may be made into delicious stews, croquettes and meat-loaves. Stews must cook very slowly if they are to be really delicious; and the most of them are the better for the addition of chopped vegetables. Serve with dumplings, or on a hot platter surrounded by buttered hot biscuits or mashed potato. A sprig or two of parsley will add to the attractiveness.

Perhaps, however, the greatest table economy on the farm is a good vegetable garden. A good third of one's living may be gained from it, to say nothing of its value to the general health of the family. Nor need the garden be a very large one; it is wonderful how much may be grown on a very small

plot provided the ground is rich and mellow.

There are many possibilities for economy in clothing. The really thrifty housewife wastes nothing. She does not need to be told about making down clothes for children, converting old shirtwaists into corset-covers and old skirts into undershirts, turning dresses inside out and using dye for faded materials. Not everyone knows, however, that in most cities in which people shop there are places where rubbers may be re-heeled and umbrellas mended. These are sometimes important items, for wet weather works havoc on shoes and clothes. When rubbers cannot be worn, shoes should be well protected from the wet by a patent waterproof mixture or by rubbing them well with melted tallow, which tends to soften as well as preserve the leather.

Economy in all of these ways does not mean unhappiness; there is even a sort of satisfaction in it, provided one bravely admits the necessity. It is the strain of "keeping up appearances" that kills. If people could only learn to be honest—absolutely honest—in this as in everything else!

There is one saving, however, an utterly false "economy," which cannot but cramp the soul and bring bareness into life; that is the savingness that bars out papers, magazines and books from the home. To be happy people must be interested. To grow in mentality they must have mental food, and mentality means alertness, forcefulness, personality. We Westerners are too much given to looking only to the material. We forget that, after all, "the mind is the man". When we fully realize this we take care that, whatever betide, we do not starve our minds.

The Dollar Chain

A fund maintained by readers of "The Farmer's Advocate and Home Magazine" for (1) Red Cross Supplies; (2) Soldiers' Comforts; (3) Belgian Relief; (4) Serbian Relief.

Contributions from June 30 to July 7: "M. and C.," Durham Co., Ont., \$2; William Ball, R. 2, Alliston, Ont., \$2; "Toronto," \$2; Christina Sewing Circle, \$10; "Prospect Farm," New Hamburg, Ont., \$36.

Amount previously acknowledged.....\$2,573.70

Total to July 7.....\$2,625.70

The following letter from "Prospect Farm," is published with great pleasure: "Prospect Farm," New Hamburg, Ont. July 5, 1916.

Dear Sirs: Enclosed you will find an order for \$36 for the Dollar Chain, this being a donation from "Prospect Farm." Miss M. E. Baird, \$5; R. Baird, \$5; Mrs. R. Baird, \$5; A. H. Baird, \$5; Mrs. A. H. Baird, \$5; Miss Reta Brinker, \$2; Fred Mitchell, \$2; Arthur Mitchell, \$2; Fred Allen, \$1; Wilfred Klinkman, \$2; Little John and Oliver Baird, \$1; Little Margaret, Jean, Tom and Faith Baird, \$1. Total, \$36.

All the little folks are under six years of age, and all that are able to talk wanted to send something to help the poor soldiers.

Yours truly,
R. and A. H. BAIRD.

Current Events.

The Russians and Japanese have signed a treaty.

A new Dominion Arsenal is to be established at Lindsay, Ont.

The Entente Allies have raised the blockade against Greece.

Mr. Edwin Montagu succeeds Mr. Lloyd George as Minister of Munitions.

Hetty Green, the richest woman in the world, died in New York. Her

For the Laundry

For nearly 60 years, Edwardsburg "Silver Gloss" has been the standby.

In one pound packages and six pound fancy enamelled tins.

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Makers of "Crown Brand" and "Lily White" Corn Syrup and Borden's Corn Starch.

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at least for a two weeks' trial. There can be little question of our confidence in the machine when we are willing to give you two weeks' trial. We know right well if it does not skim closer, and with less energy than the ordinary separator, you will not keep it.

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Use the Bissell Double Disk Harrow. They have great capacity for cultivating and have made a record for working the soil better than other disks—in fact, you won't be able to find another make of Disk Harrow nearly as serviceable as the Bissell. Thousands of farmers have tested Bissell Disks and proved them to have the "knack" for doing the best work. They are simple in design, durable and Built for Business. Write Dept. F for Booklet. Man'd exclusively by—
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Tile made from stone and cement, from 4 inches up to 18 inches; assorted car lots. Prices on application. Building Blocks for houses or barns. These make an ideal garage, window sills, lintels for prompt shipment. For prices, write or phone 31A.
A. DEVJNEY, St. Mary's, Ont.

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FETHERSTONHAUGH & CO., PATENT SOLICITORS—The Old Established Firm, 2nd Office Royal Bank Building, Toronto, and 1 Elgin St., Ottawa, and other principal cities.
When writing please mention this paper.

the ground is rich and

There are many possibilities for economy in clothing. The really thrifty woman wastes nothing. She does not need to be told about making down coats for children, converting old dresses into coat-covers and old shoes into undershoes, turning dresses into aprons and using dye for faded materials. But everyone knows, however, that in most cities in which people dress in places where rubbers are to be had and umbrellas mended. These are sometimes important items, for our weather works havoc on shoes and clothes. When rubbers cannot be had, shoes should be well protected from the wet by a patent waterproof mixture or by rubbing them well with melted tallow, which tends to soften as well as preserve the leather.

Trimmy in all of these ways does not mean extravagance; there is even a note of sanitation in it, provided one merely avoids the necessity. It is the habit of "keeping up appearances" that kills. If people could only learn to be honest—absolutely honest—in this as in everything else!

There is one saving, however, an "easy" one, "economy," which cannot be "kept up" and bring bareness to the bones. That is the savingness that comes from papers, magazines and books that are read. To be happy people must be interested. To grow in mentality they must have mental food, and steadily secure alertness, forcefulness, and energy. We Westerners are too much prone to looking only to the material we have. When we fully realize this we take care that, whatever betide, we do not starve our minds.

The Dollar Chain

A fund maintained by readers of "The Farmer's Advocate and Home Magazine" for (1) Red Cross Supplies; (2) Belgian Comforts; (3) Belgian Relief; (4) Belgian Relief.

Contributions from June 30 to July 7:
 J. and C., Durham Co., Ont., \$2;
 William Bell, R. 2, Alliston, Ont., \$2;
 "Prospect Farm," New Hamburg, Ont., \$2.

Amount previously acknowledged.....\$2,573.70

Total to July 7.....\$2,625.70

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Very truly,
 E. and A. H. BAIRD.

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For the Laundry

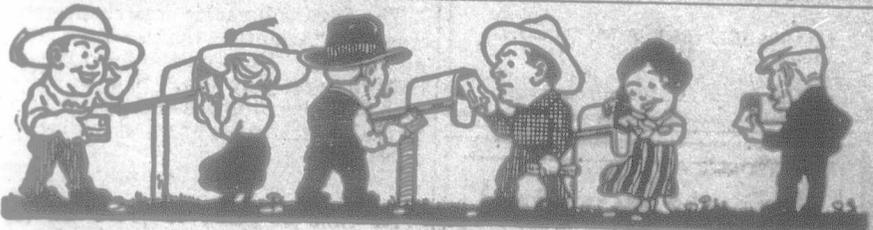
For nearly 60 years, Edwardsburg "Silver Gloss" has been the standby.

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We are receiving requests from all parts of the country for our book—the book which tells of more cream and less labor. To read the book is to want a

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at least for a two weeks' trial. There can be little question of our confidence in the machine when we are willing to give you two weeks' trial. We know right well if it does not skim closer, and with less energy than the ordinary separator, you will not keep it.

Write for the book to-day! It costs you nothing. With it goes a free copy of the new edition of "Hints on Modern Dairying," by a former Instructor of the Guelph Agricultural College. Address

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To Winnipeg and Return.....	\$35.00
To Regina and Return	38.75
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To Edmonton and Calgary and Return....	43.00

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Use the Bissell Double Disk Harrows. They have great capacity for cultivating, and have made a record for working the soil better than other Disks—in fact, you won't be able to find another make of Disk Harrow nearly as serviceable as the Bissell. Thousands of farmers have tested Bissell Disks and proved them to have the "knack" for doing the best work. They are simple in design, durable and Built for Business. Write Dept. F for Booklet. Man'd exclusively by—

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Tile made from stone and cement, from 4 inches up to 18 inches; assorted car lots. Prices on application. Building Blocks for houses or barns. These make an ideal garage. Window sills, lintels for prompt shipment. For prices, write or phone 31A.

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A. DEVJNEY, St. Mary's, Ont.

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Any size up to 400 bbls. per day. Also cider evaporators, apple butter cookers, vinegar generators, filters, etc. Write to-day for free catalogue.

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THE ONTARIO FERTILIZERS, LTD.
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Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisements inserted for less than 50 cents.

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TO MAKE ROOM FOR YOUNG STOCK, WE must sell 400 Single-comb White Leghorn hens. They are all heavy winter layers, and only \$1 each. F. R. Oliver, Rosneath Poultry Farm, Richmond Hill, Ont.

Pratts Poultry and Animal Regulators

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and in prime condition by supplementing the feed with **LINSEED OIL CAKE**, "Maple Leaf" Brand. With a trial ton order we will send you free, "The Veterinarian," a valuable book about the diseases of cattle.
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ONTARIO LADIES' COLLEGE AND CONSERVATORY OF MUSIC AND ART, WHITBY, ONTARIO

Send your daughter here in order that she may take up the duties of life well equipped intellectually, physically, spiritually and socially. The College is situated in 100 acres of ground, in one of Canada's most healthful towns, only 30 miles from Toronto. Every physical advantage is offered, notably by a large gymnasium and excellent swimming pool.
College re-opens September 12th. For calendar, write to:

REV. F. L. FAREWELL, B.A., Principal

daughter is married to a brother of Miss Wilks, of Galt, Ont.

It is understood that the British Cabinet has practically adopted Mr. Lloyd George's proposals for settlement of the Irish Home Rule question.

Mr. Lloyd George succeeds Kitchener as Minister of War. Sir Edward Grey, Secretary of Foreign Affairs, has been raised to the Peerage, and the Earl of Derby has been appointed Under-Secretary for War.

The first submarine merchantman to cross the Atlantic—the German under-water liner "Deutschland,"—arrived at Baltimore on July 9th. She was laden with 750 tons of drugs and dyestuffs, and carried two small guns, but no torpedo-tubes.

At time of going to press the great advance of the Allies continues satisfactorily on all fronts, although terrific fighting has been taking place almost everywhere, the worst of it, in the British section, occurring about La Boisselle. Canadians have been again acquitting themselves with credit, and have been in the thick of the conflict near Loos.

In the lobby of a hotel the other night conversation turned to the servant problem when a noted Justice recalled a little incident along that line.

Wishing a domestic some time since, a popular matron in a western town inserted an advertisement in an afternoon paper and an hour later a likely looking candidate knocked on the back door.

"I presume," said the matron among many other things at the interview that followed, "that you are familiar with all kinds of housework, and that you are a good cook."

"Oh, yes, ma'am," was the prompt response of the candidate, "I have always been considered a very good cook, ma'am."

"Then there is another very important thing," reflected the matron. "I trust that with regard to your cooking you are not wasteful."

"Oh, no, ma'am," was the rather startling assurance of the candidate. "I'd eat till I busted afore I'd let anything go to waste."

Our Serial Story

The Road of Living Men.

BY WILL LEVINGTON COMFORT.
Author of "Down Among Men," "Fate Knocks at the Door," "Red Fleece," "Routledge Rides Alone," "Midstream," "Child and Country," etc.
Serial Rights Reserved.
III.

Libertad lay brazen in morning sunlight. My first thought was of Huntoon. Apart from this irritating expectancy, my idea of a day's work was to determine the best way to reach Tropicania. Libertad was frankly awaiting the issue of a battle that would decide the fate of the gold-venture and possibly the life of Nicholas Romany. I did not like the thought of remaining outside in this contingency. I ascertained in the forenoon that Romany himself divided his time between his river property and the sea. The canyon of the Calderon, it was said, cut off the valley from Libertad. The main force of Orion was stationed at the mouth of the river, on the north side, while Romany held the headland opposite.

It was clear to me by this time why Romany suffered himself to be strung out, when he might have kept a compact force around his river property indefinitely. Only a ship-load of rifles and ammunition would make him take such a chance. Perhaps he was running close on these essentials—and yet, it didn't seem to me that he would invest a million in mining machinery, and provide only enough gun-metal to fight a few skirmishes.

The whole thing was excessively vague, as geographical and strategical matters may be, to one hardly straight on the cardinal points of a locality. What occurred that mid-forenoon might have been regarded as a complication at first. A dusty forlorn peon had asked my name at the desk, and when assured that I was "Senor Ry-so" produced brown paper bearing the following words printed out with incredible effort:

Get a couple of mules and follow this man. It's all right.

HUNTOON.

P. S. Bring your duffle.

Now I knew Huntoon could write. Why, therefore, the printing? Then it occurred to me that in certain exigencies a man can sit a horse when he cannot shave himself; also that he can print letters in angles when it's out of the question to make the chirographical curves. I was very sorry and prepared to follow the peon, whom I left below to be washed and fed. . . . I couldn't be sure, but it looked as if my baggage had been overhauled somewhat since I had left in the morning. Nothing had been taken. I wondered if I were so badly on Yarbin's nerves as to force him to examine my effects to find, if possible, a clue to my real purpose in Libertad. . . . The peon had assured me that the journey to Huntoon would require three hours. "Bring your duffle" meant the purchase of saddle-bags and the storing of the large part of my baggage. The suspicion that Huntoon had a way to reach the valley, made me take necessities. These I was packing when Yarbin tapped at my door.

I told him I had heard from my friend, and was off to join him.

"I heard this morning," Yarbin reported, "that a man might journey west to the coast fifteen miles or so, and then sail down to the mouth of the Calderon where Romany's outposts are."

"But Orion's outposts are there, too," said I.

"I thought of that, but they say Romany holds a sort of promontory. I'd look into it further, but one can't take chances with a woman along—"

"If I make it, I may be able to help you," said I, looking up at him from my knees. I was straining at the buckle of the saddle-bags. He stood there uneasily, regarding me with a queer mixture of hope and alarm. I wasn't so sure about his being yellow or insignificant.

"Yarbin," I said, straightening up, "Nobody sent me here. Nobody has a commercial hook on what I do. If that means anything to you—all right. If it doesn't—there's no harm done, I hope."

"I'm obliged to you," he said. "I've been shut up a bit lately; it's drawn me rather fine. Do you—I speak purely as a friend—happen to be 'shy'—in any way?"

I took it in the way he meant. "For the present—all fixed, thank you," said I.

He bowed, and turned toward the hall, calling: "Lillian—"

She came to the door as she was—holding a silk robe in place with one hand. The other was extended to me. Her hair was but half-done, yet she looked fresh and attractive in her fearless, wide-open way. I always thought of her as a creature of vast ranging.

"Mr. Ryerson is leaving," Yarbin said. "We may overtake him in the valley, if luck favors—"

"I'm in favor of taking luck by the nearest handle," she remarked, laughing at us; and then added, in a queer incomprehensible way, "You two look good together. . . . Good-by."

Her hand was warm and small and strong; and Yarbin's was lean and eager in mine. I was glad for the changed look in his eyes.

We were in the saddle before noon. The peon led me straight into the west

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July 14, 1916

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LOCAL TICKET AGENCIES.

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The choice of the World's Great Artists
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Cook and Between Maid—An English lady, living in the United States, in the country, wishes to find two thoroughly reliable, strong women as good cook and between maid. Three in help kept. Wages, cook \$30 to \$35 a month, between maid \$25. Fare advanced. Reply, giving full particulars and copies of references, to Mrs. J. M. Cattell, Garrison, N. Y.

Phaeton, Rubber Tires
Good condition. Made by Campbell. Cheap.
Box 505 London, Ont.

Mention this Paper

a fact that reminded me of the way valley-ward, that Yarbin had suggested. Once, as I fell into musing, a sharp and sudden sense of Mary Romany uprose in my consciousness. Always when the rush of externals kept her apart for a time, her advent was just so much sharper. Through the entire journey from Covent to this hour, I had only to fall into an abstraction to touch the borders of illusion—the flutter of a leaf seemed Mary Romany's hand waving in the distance; or a sense of the dear remembered figure around the next turn of the trail, as now, was a sweet excitement which turned to pain when dismal actualities were restored.

Between three and four, we reached the small coast town. It was a place of fishermen—blown and faded brown men, the shine of black long since gone from their hair, to the account of sun and salt; men used to looking into the wind's eye. . . . And there, just as far west as the Continent would permit, stood Huntoon upon the rocky shore. He let me come up to him (a broad-hatted and high-booted Huntoon in blue shirt and English riding-breeches with doe-skin reinforcements), the mighty western sea for a back-ground. I saw the pouter breast, the saddle sinews, the throat ruffled with scars—a red and throbbing throat just now—and the cool blue eyes swam in inflammations. Huntoon had drilled himself not to be effusive. I had given over my mule to the peon at a discreet distance, and had stalked my friend.

"We're going down coast," he said, accepting my hand casually. "B'long to geodetic survey—an' we're going down coast."

These remarks were torn out, like strips of paper, his teeth being closed fast upon the main document. I did not smile, and refrained from asking what geodetic survey. A peculiar transfiguration occurred. One eyelid looped down upon his cheek, covering the blue eye, and remained there, his head cocked to one side to impress the finished strategy required for conducting survey business. Since the dumb Pacific was behind, the fisherman afar about their business, and the peon out of hearing, the consummate delicacy of the proceedings afoot, moved me. Moreover, all this had consumed energy. Huntoon drew a black bottle as large as a rolling-pin from his hip-pocket.

"Have little slug," he suggested. "Plenty sea-air for chaser."

I drank with him, just a touch. It was like the jolt of an explosive—opaline rum. A little in a saucer would make faces at you. My friend now drew me still more remotely apart, arm about my shoulder, and confided bashfully that we were about to go down the coast on geodetic business. He then inquired with hinting fondness if I would have a little slug. Literally the man fumed in the brisk air and vivid sunlight of the beach. . . . I asked presently if he had a boat.

"Tha's a'right. Yawl."

Huntoon further intimated circuitously that since the fishermen went to bed early, it would be child's play to appropriate the yawl desired. Having plenty of survey expense money, I replied, we would do well not to take the bread from the mouths of the fishermen's children, whereupon Huntoon sat down and wept. I left him to procure a boat and stores, which was accomplished before sunset. Huntoon was presently abroad on the buffet stock. I carried him to the yawl as a final package, and the sun went down. A continual astonishment to me was the different entity that was Huntoon, fallen. As we set sail in the dusk, the vastness of the sea and the world in general, appeared to me in a conception more expanded than ever before.

I could not have dropped into this venture had it not been for Yarbin's words of the morning about reaching Romany's outposts. It is true, however, that Huntoon seemed to have a definite plan. I tried him once on the matter of getting past Orion on the way to the mining outfit, and his mirth was unprecedented. That was what he did best, he admitted.

A peculiar night. The sea was calm and brilliant, the moon a mighty pearl. The forests of South America were a black ribbon on the left, and the mountains were contours of denser night. Huntoon snored in a changeable way that broke monotony. I left him a few drinks for morning, and the rest

washed overboard. He had spent his last hours of consciousness in a panic lest he should run out of liquor while on board. I was aware that I would have a full-fledged companion only when from drouth was resurrected the other Huntoon. I believed in him for a fighter and a friend.

His mutterings were better than many men's self-conscious utterances. He had been vastly around—had fought everything, and alcohol everywhere. He spoke of cavalry outfits; Dannemora; once he spoke of Romany as "king of the golden river." Toward morning, he began to come in closer to reality. Bits of ballads that I knew, and some that I did not, arose to his lips,—and all had the color of sea and plain and mountain and wild women and poor suffering gamesters of men. Not once did he mention Jane Forbes, nor China. Those meant home to him, belonged to the other Huntoon. Now he was abroad among his services. I saw his ideals (boyish ideals, but how few men outgrown them): that a man may be afraid of anything but fear; that nothing is fatal but being a coward, and nothing so fine as being "there at the pinch." So long as a man sticks to men, these ideals will do, but when he loves a woman, they sink back into the sophomoric stage. There is a finer chivalry than we can ever know alone with men. . . . Poor Huntoon—his former girls were just faces, faces which meant ports and houses he could never find again in daylight—a motley of memories, like a boy's punishments, to laugh at when the lessons are learned and the pain is far behind.

At last he sat up. It was after midnight, and I dealt him out a cracker, a bit of cheese and a dried fish, to take with his ser'es of drinks. The food slowed him up, as it always does. . . . I ventured to remark that he had been a bit jaunty in the evening, and had wasted a lot of liquor. Had he not better begin to retrench on the little that was left? He stopped his singing, to become ill. I assured him he had been all right—not rough, nor a bore.

He went off his head at this, and presently negotiated a stunner. Pieced together from his rambling, I drew that he had wearied of waiting in Libertad and tried to get down into the valley through the land-lines, running afoot naturally of Orion's sentries. Exactly what happened I did not learn, but he had made thrillingly good as a soldier and now he was embarked upon a certain mission to the Old Master.

This much represented hours of listening. Stowaway, castaway, and other marine memories enlivened a monologue that had to do with lavender gloves, barrel-houses, the wide out-doors and girls who love a sailor. . . . Even in Liu chuan, I had seen in the remittance-man a trained soldier. Doubtless Orion had perceived the like. Such men are at a premium in the gold countries, where miners are many, but leaders of men few.

I held the tiller and reflected upon the mystery of life, as the great equatorial day broke. The mountains rolled up in the east, the shore was edged with dazzling lights where the morning sun fell upon the breaking waves; the sea swung in a slow rhythmic breathing, changed from deep blue to radiant living green—and before me was Huntoon, shaking, burnt-out, whipped,—but on a mission, certainly not of mercy to the father of the woman who was great to me—great like the day and the ocean and the Continent. And this was a strange Huntoon—not at all the man who had tried to be good because Jane Forbes was at hand.

He opened his eyes again, regarded me and the morning. Then he succeeded in mastering another "slug." I knew what was passing in his mind; that he must face a day, comparatively drinkless, a day of terrific heat and labor; that he wished he had not awakened at all. He tried to speak, but gave up.

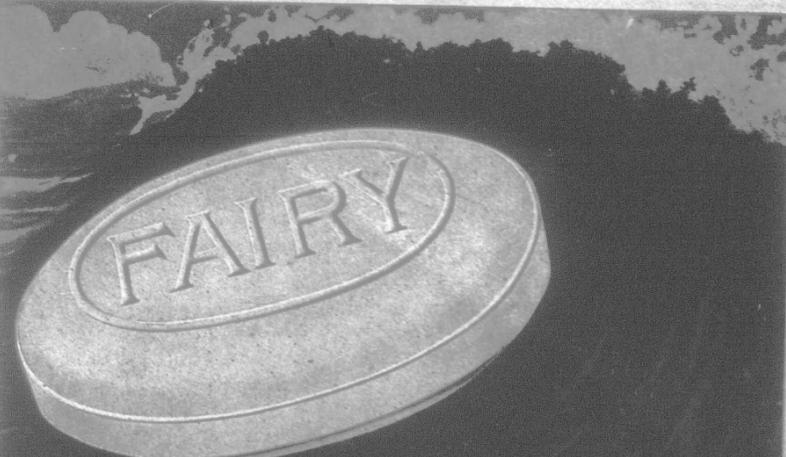
"You'll be all right," I said. "Just stay convalescent like this and we'll make the mining camp in order. . . . By the way, how far was it from where I met you?"

"How long have we been sailing?"

"About twelve hours."

"Two miles an hour at least," he muttered.

He turned about with a groan and squinted at the shore-line southward.



Pure as its whiteness suggests—refreshing in its cleansing qualities—there is more than ordinary satisfaction in the use of

FAIRY SOAP

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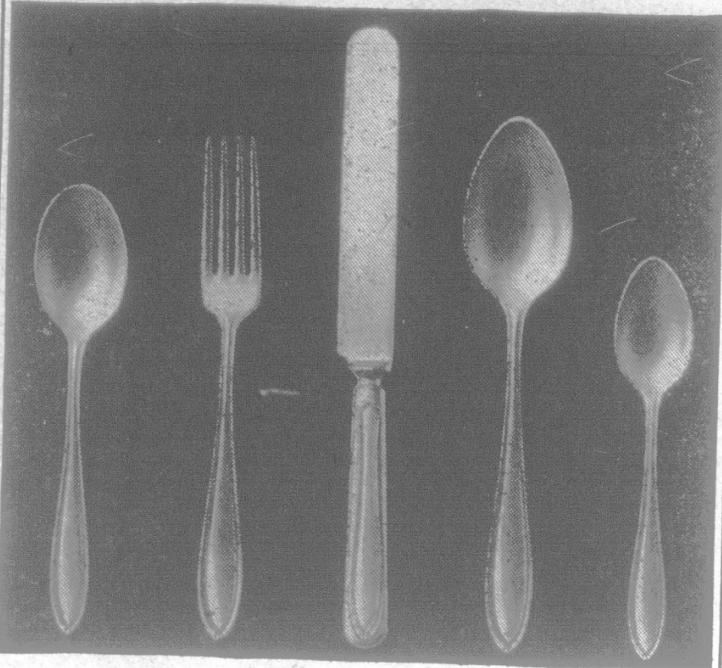


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Two Coupons Free See the Coupon Below

We Give Premiums to users of Quaker Oats. Dozens are pictured in every package. They are things you want, like Jewelry, Aluminum Cooking Utensils and Silverware.

Two Coupons Come in each 25-cent package. One coupon comes in every 10-cent package. You can pay for the premiums with coupons only, or with coupons plus a small sum of money.

Quaker Oats stands supreme among oat foods. It is flaked from queen grains only, so the flavor is doubly delicious. The flakes are big and luscious. We want you to know its unique fascinations, so we make you these offers to get you to try it.

Dominion Pattern Silverware

The Tableware we picture is made by the Oneida Community. It is their famous Par Plate, with the best nickel base. The wearing qualities are guaranteed by the makers and by us.

This pattern—the Dominion Pattern—is made exclusively for us. It closely resembles Old English Sterling patterns. You never saw a more exquisite design.

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The Tea Spoon is given for 10 coupons, or for 2 coupons and 10c.

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The Fork—a medium fork—is given for 20 coupons, or 5 coupons and 20c.

The Knife—a medium knife—is given for 30 coupons, or 6 coupons and 25c.

Two are Free

Cut out the coupon in this ad. It takes the place of two of the Quaker Oats coupons. Each 25c package has two coupons—each 10c package has one. Buy Quaker Oats and get them. Send them to us with the coupon we print here, and get a full set of this Silverware free. We send it prepaid.

This Coupon Good for Two

This coupon counts the same as two coupons from the Quaker Oats packages, when sent with the regular coupons. But only one of these coupons can apply on any one article. The rest must be Quaker Oats coupons. A

The Quaker Oats Company

Premium Department Peterborough, Ont.

(1355)

GIRLS!

NOW is the time to prepare yourselves to take your place in rebuilding the Empire. You will have to fill positions men have previously occupied, and thus carry on the commercial and industrial life of Canada.

Qualify for a teacher in School, Music, Art, for an entertainer or teacher in Expression, or take a Business Course, and thus step into one of the many vacancies. The Commercial World needs good, sensible girls NOW.

Write for one of our calendars.

FALL TERM COMMENCES SEPT. 7th.

ALBERT COLLEGE, Belleville, Ontario

E. N. BAKER, MA., B.D., D.D., Principal

5-16

I had kept the yawl a mile or so off the beach, to meet a point ahead that had been eminent since the dawn.

"Hell," he said, "that must be Romany's headland. We go in the canyon there."

He helped himself to further stimulant, and added with a ghastly smile: "You say, I didn't get up to take my trick at the wheel?"

"No, I didn't call you. I could hear that you needed rest. You weren't a bit monotonous. You'd wind up and then run down, and every little while break a spring. It couldn't have been the main-spring—"

"Did I tell you—did I undertake to show you any documents from my past, Ryerson?" he asked with apprehension.

"Yes," said I, readily enough, "but it was rather deep for me. Have you ever been a Dervish?"

He looked at me sadly.

"Or a Dragoman?" I asked.

"No, they wouldn't let me in."

"You didn't mention either of those,"

I said, "but nearly everything else—"

"Dervishes are born, not made," he mumbled.

"It seemed to me that I could get your past in some sort of mental shape best by a process of elimination."

"I didn't take you for a fool any time—did I?" he asked.

"Not in the least—"

"I'm glad of that. Did I cry?"

"Not in the night—"

"That was fine of me. I suppose I revealed that I had a mother once?"

"No, Huntoon. I had to hypothesize—"

"Are you an old hand at hyp—? I'll have to have a notch more steam on that—"

"You see, the night was calm. I crept off shore a bit to keep away from the mosquitoes. It was so very still and fine—I had time to put two and two together—"

He winced. "How many services did I say I had soldiered in?"

"I can't recall—"

"Canadian Mounted Police—for instance?"

"No."

"You see, I'm not naturally a liar. I never served with those Johnnies."

I didn't open the main trend, meaning to get him straightened out first.

An hour afterward we could see the mouth of the Calderon canyon, low on the left where Orion's soldiers lay, and the lofty naked promontory like a great arrow-head, which the miners were said to hold.

"They both see us," said Huntoon softly.

"Why not make the point of the headland?" I asked excitedly, as Huntoon steered for the centre of the canyon.

"It would look like a frame-up, to the miners," Huntoon replied. "Orion's got boats and is supposed to stop that sort of thing in little craft."

We've got to get properly fired at by the party on the left, and make the landing inside where climbing is easy."

I offered no comment in this deep-sea business. Ten minutes afterward, with his back to the headland, Huntoon performed close to his chest a swift bit of wigwagging with a red square of cloth. Firing at us began from Orion's concealed position. Our yawl was crowded over toward the miners' side. In a few moments, to all intents, the native riflemen went back to sleep.

"You do the talking," said Huntoon, as the yawl was made fast. We were in still water among the rocks at the foot of the steep slopes, just behind the barb of the massive arrow-head.

To be continued.

For Tobacco Growers.

On account of the recent prevalence of tobacco-root rot and other tobacco diseases the Tobacco Division has equipped a pathological laboratory for the identification and study of tobacco diseases.

Any growers whose crops are affected with disease should either send specimens or write to the Tobacco Division, Central Experimental Farm, Ottawa. G. C. Routt, of the Tobacco Division has been placed in charge of this work, and would be glad to examine any diseased plants and offer suggestions for treatment; or, if necessary, to make a special visit to the farm.

Questions and Answers.

1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

Growing Mushrooms Outdoors.

Kindly advise how mushrooms may be grown in the open air or outdoors. I shall begin as soon as I see your instructions.

D. B.

Ans.—Do not start to grow mushrooms too quickly or too extensively at first. There are little details that experience alone will interpret and demonstrate their importance. There is very little information compiled about outdoor mushroom culture. The crop requires a steady temperature and is usually grown in caves or cellars. The article in the issue of June 29, 1916, explains how they may be grown under cover and will indicate the important points in mushroom culture. The bed in which they are to be tried outdoors should not be filled with too much manure as the temperature, possibly, would go too high. They would, however, require considerable organic matter, for in that material the plant thrives best. They would also require frequent watering except in rainy weather. We would advise our correspondent to go easy at first for even experts at mushroom growing experience failures.

Veterinary.

Poll Evil—Pigs with Swollen Joints.

1. Horse has had poll-evil since March. My veterinarian operated on him and the wound has been discharging ever since.

2. Some of my little pigs seem to have swelling of the joints. I have been giving them salts and sulphur and they seem to be getting a little better.

J. P. Jr.

Ans.—1. Some cases of poll evil are very hard to cure. Treatment is slow. We could not expect a cure in a bad case in a few months. It may be that a second operation, or even a third may be necessary. In some cases it is necessary to remove a portion of the large ligament (called the ligamentum nuchae) that runs on the upper border of the neck from the withers to the head. No doubt your veterinarian is doing all that he can for him. Local treatment will not be effective unless the operation allows escape of all pus formed.

2. This is doubtless of a rheumatic nature. Continue with the Epsom Salts and sulphur, and bathe the joints 3 times daily with hot water and after bathing, rub well with hot camphorated oil. Provide good dry sleeping quarters for them and allow free run on grass during the day.

V.

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 suiting. 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 post card to The Holeproof Clothing Co., 56 Theobalds Road, London, W. C., Eng., for large range of patterns, easy self-measure chart and fashions. These are absolutely free, and post paid. Send 2-cent post card at once! Mention "The Advocate."—Advt.

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CAUSTIC BALSAM.
A safe, speedy and positive cure. The safest, Best ELIXIR ever used. Removes all bunches from horses. Impossible to produce scar or blemish. Send for circulars. Special advice free.
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or irrigate the dry spots
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enables one man to do the
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ALLOWAY LODGE STOCK FARM

Angus, Southdowns, Collies

Special this month:

Southdown Prize Rams

ROBT. McEWEN, R.R.4, London, Ont.

Balmedie Aberdeen-Angus—Get a high-
class Angus bull and breed the
champion steers. I have show-ring quality bulls
from 10 to 24 months of age; also choice 1- and
3-year-old heifers.

T. B. BROADFOOT, Fergus, Ont.

Aberdeen-Angus Cattle. Several choice
young bulls from the
imported sire "Pradunet" for sale. Apply
A. DINSMORE, Manager, "Grape Grange"
Farm, Clarksburg, Ont.
1 1/4 miles from Thornbury, C.T.R.

the females the judges had a great lot
to sort out. Pierrepont Clarissa won
in the Calf class for Earl Manvers,
and she got reserve championship to
that grand two-year-old heifer of W.
M. Cazalet, Golden Gay 2nd, that
won first in her class, and is a heifer of
supreme merit, beautifully moulded and,
evenly fleshed. In the Yearlings—a
strong lot—Lady Pye led, F. B. Wilkin-
son, followed very closely indeed by
W. Spurr's Wexham Venus a most
promising heifer. W. M. Cazalet was
first and second in the Cow class. Lady
Ramsden 3rd, a red roan, evenly fleshed,
and of great merit led, and Cairncosh
Jilt was second.

In the Large White Pig section a
beautiful boar, Bourneo 10th, won first
in Senior Male class and silver medal
as best boar for E. Wherry. The same
exhibitor's handsome and typical sow
Bouquet of Bourne also won the female
medal and first in her class.

In Lincolnshire Curly-Coated pigs
the two female classes were really great.
F. D. Grounds won in youngsters with
March Bobtail 2nd. In sows, G. Freir
won with Deeping Pride 49th, a particu-
larly handsome, typical sow. G. Simpson
led in the Boar class with Friar 7th.

This clears the way for the Royal
Show that is to be held at Manchester
and has attracted 515 horse entries;
803 head of cattle; 607 sheep; 92 goats;
321 pigs; 1,519 poultry and 565 exhibits
in the "produce" section.

ALBION.

Gossip.

Geo. Amos & Sons, proprietors of
Pleasant Valley Farms, and breeders of
high-class Scotch Shorthorns, Moffat,
Ont., in changing their advertisement
state that they are offering Sittyton
Favorite, a bull which was first as a
junior calf at Toronto, the only time
shown. He looks quite as good to-day
and is a proven, good stock bull. A
number of young bulls are coming on
and females of all ages bred to Imp.
Loyal Scot and Sittyton Favorite. See
the advertisement.

Don Jerseys.

The Don Jersey herd of D. Duncan
& Son, Todmorden, R. M. D., and
Duncan Station, C. N. O., has the
distinction of being the oldest estab-
lished herd in Canada, and for many
years the representatives of this herd
were the outstanding feature of the
Jersey exhibit at the Toronto Show,
but in later years the undivided attention
of the present owner, Gordon Duncan,
has been wholly centred on increased pro-
duction and record making. This does
not mean that the show-yard quality
of the herd is being sacrificed, for never
in the herd's history was the quality
higher, and this is particularly true of
the younger cows and heifers, daughters
of those two high-class and intensely
producing bred sires that for the past
several years have been in service—
Eminent Royal Fern and Fontaine's
Boyle. Recently several have finished
their R. O. P. test, and many have
qualified in previous years. Among
those recently qualified are Gussie's
Sweet Vernal. In 1914 she gave 10,800
lbs., and this year will easily beat
12,000. She has a short time to run yet.
Her yield has been from 45 to 52 lbs.
per day. Out of her is a March bull
calf got by Eminent Royal Fern. It
is a coming herd header that will
surely make good. Matinella of Don,
mature, will finish on the 25th of August,
and is now within a few lbs. of 10,000
and is still giving 30 lbs. a day. But-
tercup of Don, four-year-old, gave 9,000
lbs. Nancy of Don started under
three years of age and in 8 months
has given 7,500 lbs., average test 5 per
cent. Neva of Don, mature in April,
gave 1,145 lbs., in May 1,175 lbs., with
a test of 4.5 per cent. She has a bull
calf by the same sire. The herd is
now 60 strong. Twenty of them in
milk are producing 8 gallons of 30
per cent. cream a day. Surely it
pays to keep the best. Several young
bulls, out of such cows as those men-
tioned and sired by the above-mentioned
bulls, and Imp. Raleigh's Noble, are
for sale, the majority of them of service-
able age, probably the best all-around
lot ever bred in this noted herd, also
yearling heifers and heifer calves.

Made in Canada
Tarvia
Preserves Roads
Prevents Dust—

Bad Roads Cost More Than Good Ones!

That is a statement which thousands of taxpayers in scores of
Canadian towns have found to be a grim reality. From force of
habit they looked upon macadam roads as a great luxury that bore
heavily upon the taxpayers' shoulders.

This viewpoint has been justified in
many cases where the automobile
came along and wore out the new
macadam roads almost as soon as
they were built.

The real trouble is, however, that
plain macadam was never intended
for automobile traffic. It wears
rapidly under the abrasive thrust of
automobile wheels.

It is consequently being abandoned
by progressive Canadian engineers
in place of tarviated-macadam;
that is, macadam which has been
bonded with Tarvia to make it
automobile-proof.

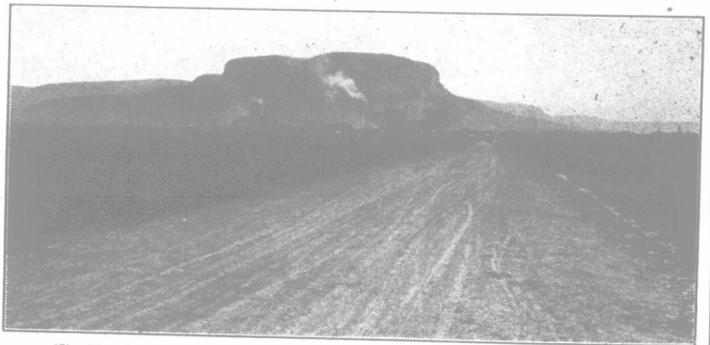
Tarvia is a tough, inexpensive coal
tar preparation which acts as a
plastic binder, enclosing the broken
stone in a tough matrix and making
a tough, slightly plastic waterproof
surface on which the automobile
has little or no effect.

Ordinary macadam is an incessant
source of expense; tarviated-maca-
dam takes care of itself year after
year and improves with use, at a very
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If you want better roads and lower taxes,
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garding road conditions or problems in
your vicinity, and the matter will have the
prompt attention of experienced engineers.
This service is free.

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"The King's Highway, Fort William, Ont. Treated with "Tarvia-B" in 1914.

Clydesdales We have still left some exceptionally good drafty stallions,
ranging in age from one to eight years, prizewinners, including
champions; also in-foal mares and fillies. There is a horse boom coming. Buy now.
SMITH & RICHARDSON, Columbus, Ont.

ORCHARD GROVE HEREFORDS

Have several young bulls and heifers for sale. Satisfaction guaranteed.
L. O. Clifford Oshawa, Ontario

Dual-Purpose Shorthorns

One young bull, Weldwood Red Victor, out of Lena of Northlynd,
with an official record of 7,501 lbs. milk and 328 lbs.
butter-fat. This bull is sired by College Duke
=85912=. Also a few cows and heifers.

WELDWOOD FARM, The Farmer's Advocate, London, Ontario

Robert Miller Still Pays the Freight—And he is offering in Shorthorns some of the best
young bulls and heifers that can be produced. Young bulls fit for service,
Scotch families, and some of them from great milking families. They are of the best
right, just what you want to make a proper foundation for a good herd, and suitable to improve any
herd in the land. They will be priced so that you can afford to buy, if you will tell me what you
want. Our business has been established 79 years, and still it grows. There is a reason.
ROBERT MILLER, Stouffville, Ontario

Shorthorns and Shropshires—T. L. MERCER, MARKDALE, ONTARIO—
young cows in calf, heifers from calves up, and young bulls from 9 to 18 months 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; high-class lot.

Spring Valley Shorthorns Herd headed by the two
great breeding bulls,
Newton Kingleader
(Imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex.
Kyle Bros., Drumbo, Ont. Phone and telegraph via Ayr.

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They are a PROVEN roofing—not an experiment. Very easily laid, joints are snug and close fitting—they simply cannot leak.

Write for interesting Booklet. Price lists and detailed information about "Metallic" building materials, Siding, Corrugated Iron, "Metallic" Ceilings, etc.

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The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains to-day the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure.

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Write for our Illustrated Catalogue "Engineer's Bargains" Also General Supplies for Farmers

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Large selection in females, all ages, bred from the best dual-purpose families. One extra choice fifteen-months bull, some younger ones coming on. Priced well worth the money.

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Good quality and choice breeding. Come and see our herd and flock.

MISS C. SMITH, Clandeboye, R. R. 1, Ont. Farm one mile west of Lucan Crossing—Telephone

Fletcher's SHORTHORNS — 3 choice females, all of good Scotch breeding for sale. Write before buying.

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. Big, fleshy cows that will nurse calves right. Prices easy. Write: THOMAS GRAHAM, R.R. 3, Port Perry, Ont.

Questions and Answers. Miscellaneous.

Itchy Legs.

What can I do for a mare that has itchy hind legs? D. W. P.

Ans.—This is quite a common trouble. Purge with 8 to 10 drams aloes and 2 drams ginger. Follow up with 1 1/2 ozs. Fowler's solution of arsenic twice daily for a week. Make a solution of corrosive sublimate, 30 grains to a quart of water. Heat to about 100 degrees F. and rub well into the skin of the affected parts twice daily.

Closing A Road.

Is it possible for me to close a road across premises. The said road is a mere wagon road, on which no government or township money has been spent, but it has been open for over thirty years. The road around corner being a good gravel road that is always kept in repair. There being a gradual rise of about twelve feet to top of hill. Would it be advisable to fence around corner without notice? Could the township make me leave it open when it was merely open for a short cut, and it is nearly always a mud hole, and almost impassable, at some time of the year? F. V. H.

Ans.—We do not think that you can lawfully close the road in question. The matter is one to be arranged with the township council.

Monsieur et Mademoiselle.

In the following verses Mrs. Craik, the author of "John Halifax, Gentleman," has shown us how charming in children is the French gaiety of heart and politeness, points which we Britons are liable to overlook in our serious, practical way:—

"Deux petits enfants Francais: Monsieur et Mademoiselle. Of what can they be talking, child? Indeed I cannot tell.

"But of this I am very certain, You would find naught to blame In that sweet French politeness— I wish we had the same!

"Monsieur has got a melon, And scoops it with his knife, While Mademoiselle sits watching him; No rudeness here—or strife; Though, could you only listen, They're chattering like two pies— French ma pies, understand me— So merry and so wise.

"Their floor is bare of carpet, Their curtains are so thin; They dine off meagre pottage, and Put many an onion in! Her snow-white caps she irons; He blacks his shoes, he can; Yet she's a little lady, And he a gentleman.

"O busy, happy children! That light French heart of yours, Would it might sometimes enter at Our solemn English doors! Would that we worked as gaily, And played, yes, played as well, And lived our lives as simply As Monsieur and Mademoiselle!"

A. A. Colwill, breeder of Tamworths and Shorthorns, R. R. 2, Newcastle, Ont., in changing his advertisement, offers his stock boar, Duke of Harold, and two three-year-old sows. He thinks the trio would make good for exhibition purposes and would like to see them in the ring, but owing to his extensive farming operations and the scarcity of help he has been forced, reluctantly, to give up showing this year. He is also offering an extra good sow 18 months old and another two years old and several young sows. Wm. Gilbert, of Stony Plain, Alberta, recently took four sows and two boars from this herd, for the western show circuit.

The Shorthorns offered are of the deep-milking kind, and as Mr. Colwill hand milks them and ships cream to Toronto he knows just what each is doing. They have been specially selected for 20 years. He reports sales good, and looks for a keen and long-continued demand. See the advertisement.

This Silo is "Right"

Toronto Economy Silos are fitted for you to set up without carpentry. Staves are 2-inch spruce, all wood parts are creosoted against weather and decay, also making them proof against acid, warp and shrinkage; double-tongued and grooved, with steel splines in ends; special steel hoops have malleable frost-proof lugs; doors airtight with three sealing surfaces, yet very easy to open. Roof has three supporting iron rings, is covered by waterproof roofing, and has galvanized, protected ventilator at top. This is the real ECONOMY Silo, and the real service Silo, too.

THIS Dairy Silo gives your cattle summer food in the midst of winter. Ensilage keeps cattle "on their feed" and supplies exactly the kind of fodder which makes best and most beef, and best and most milk. All this with minimum labor and least cost, when you use our engine power and our silo cutter, feed grinder and other equipment for easing barn work. Buy the well-made Toronto Economy Silo; shipped ready to set up at your barn. No skill could ever make a silo better than ours, and no other material equals good spruce wood.

Get the Silage Machinery from Us, too

Besides our complete silo, remember that we can sell you a Cutter and Blower possessing important exclusive features. Our machine cuts the silage and fills the silo at the same time.

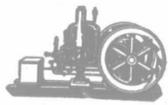


Our "TORONTO" Feed Grinder is another essential on every farm where there are cattle.



Gives Plenty of Power

Our Chapman Engine for farm use has the timing device, ignition, governor and valve control in a cast-iron case, which protects them from injury. Our Engine catalog explains fully. The Chapman Engine not only cuts your ensilage and fills your silo, but at other times it grinds feed, pumps water, saws wood—does the hard chores, quick and well, at a cost of only a few cents an hour. The Chapman Engine enables a farmer to do more work, and undertake dairying and beef raising on a larger scale. You can move this engine from place to place, if need be, and it will give steady, smooth power in any kind of weather.



Ontario Wind Engine & Pump Co., Ltd. 93 Atlantic Ave., TORONTO

Branches: Montreal, Winnipeg, Regina, Calgary

Get a Silo like this on your farm by planning now—make bigger profit returns on your farm next year. Write for our Silo catalog and our Engine catalog to-day.

Escana Farm Shorthorns

FOR SALE: Two imported bulls, proven valuable sires; 12 bulls, 10 to 20 months old, all by imp. sires and from high-class dams; also for sale, 20 heifers and young cows, several with calves at foot, all of very choicest breeding, and especially suitable for foundation purposes.

Mail orders a specialty. Satisfaction guaranteed. MITCHELL BROS. Jos. McCrudden, Manager. Farm 1/4 mile from Burlington Jct. Burlington P.O., Ont.

Oakland--48 Shorthorns

Present offering is one choice red bull, 20 months old, price \$175; also three about seven months old. A few cows with calves at foot and bred again, and some fine heifers bred. All registered and priced to live and let live. JNO. ELDER & SONS, HENSALL, ONT.

Females-SHORTHORNS-Females

I can supply females of the most popular Scotch families, Crimson Flowers, Minas, Lady Fannys, Nonpareil, Butterflys, Amines, Athas, Miss Ramdens, Marr Emmas, Marr Missies and Clarets. A few bulls. A. J. HOWDEN, COLUMBUS, ONT. Myrtle, C. P. R. and G. T. R.; Oshawa, C. N. R.

Spruce Glen Shorthorns

When in want of Shorthorns visit our herd. We have 70 head to select from. Minas, Fames, Miss Ramdens, breeding age—level, thick, mellow. Also several young bulls of fellows and bred just right. James McPherson & Sons, Dundalk, Ont.

Canada's Grand Champion Shorthorns of 1914-1915

are headed by the great "Gainford Marquis" Imp. Write your wants. J. A. WATT, ELORA, ONT., G.T.R. & C.P.R.

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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. Also ram and ewe lambs of first quality. Wm. Smith & Son, Columbus, Ont. Myrtle, C.P.R., Brooklin, G.T.R., Oshawa, C.N.R.

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The above bulls are choicely bred, of good quality, and should make valuable sires. We have five Canadian bred bulls from 10 to 18 months old. We invite inspection of our stock and will give correspondence our most careful attention. J.A. & H.M. Pettit, Phone Burlington, Freeman, Ont. Burlington Jct., G.T.R., half mile from farm

Woodholme Shorthorns

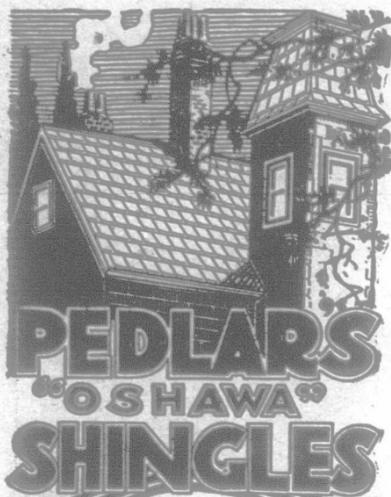
For Sale—a number of yearling and two-year-old heifers, the two-year-olds are bred a short time, and a number of good farmer's bulls of the right kind and breeding. Write your wants. G. M. FORSYTH, Claremont, Ontario

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Special Offering, Sittyton Favorite one of the best individuals and stock bulls we know of. Also young bulls and females bred to (imp.) Loyal Scot and Sittyton Favorite. Write your wants. We can suit you in merit, breeding and price. GEO. AMOS & SONS, Moffat, Ont. Moffat, 11 miles east of Guelph, C.P.R.

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GLENORO STOCK FARM
Rodney, Ontario

Questions and Answers, Miscellaneous

Cribber.

Would a mare, being a cribber, teach the foal to crib?
S. G. H.

Ans.—Cribbing is a vice, and there is a possibility that the foal, might imitate the mare.

Gasoline Tractor.

Which gasoline tractor, the four or three wheel, would be the best for plowing and all kinds of farm work, and what power would be best for a three furrow plow?
A. R.

Ans.—Some recommend one kind, some another. It would be advisable to see both kinds working in order to decide on which would be most satisfactory under local conditions. A tractor giving eight-horse power at the drawbar should prove satisfactory.

Line Fence.

Can A who owns a farm adjoining a Methodist parsonage be compelled to pay half of cost of the line fence, (ordinary farm fence) between said properties? A contends that the church owning said property has a right to pay for all the fences. This parsonage property is in a different part of the village and not adjoining the church. Taxes are paid annually.
J. C.

Ans.—A may be compelled to make, keep up and repair whatever the local fence viewers may decide, by award, to be his just proportion of the fence to be built as a boundary fence between the parsonage grounds and his farm.

Lump on Colt.

A bought a colt from B five months ago. B said he was sound and all right. A takes colt home and in two or three days sees a small lump on his leg where a spavin would start and he shows it to B. The lump has grown and he is lame. Can A claim damages or make B give A so much back, and how should I proceed?
A AND Z.

Ans.—It would depend largely on the agreement. If the colt was, to all appearances sound, on the day of sale and the seller did not misrepresent it wilfully we doubt if the buyer could collect any damages. If on the other hand the buyer could prove that the seller knew the colt was unsound and had by some means covered up such unsoundness to take advantage of him, then he would have ground for action. Such cases are better settled between the parties concerned. Under the circumstances, we doubt whether A could collect any damages.

Objectionable Use of Ditch.

A and B live on adjoining farms. A has a ditch from his barn to the road side, then across part of B's farm. It then turns and goes lengthwise across till it empties into a creek. The ditch is an openward one with springs in it, and B's cattle drink from it all summer.

1. Can A run his bath-room drain into his barn ditch and let it run down for B's cattle to drink?
2. If any tuberculosis germs happened to come down the ditch and B's cattle got sick could he come upon A for damages?
3. What steps if any could be taken to prevent this?
4. Will it damage the fish in the creek through time?
5. If A uses chemicals will it sicken the cows?
6. Can the council do anything?

J. Mc G.

Ans.—1. We do not see that B is in a position to legally prevent A from doing so.

2. It would first have to be proven if the disease was contracted by drinking water from the ditch and also if the disease germs came from the sewage.

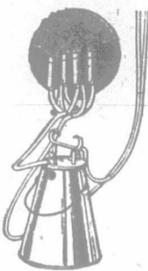
3. Endeavor to make a friendly agreement between the interested parties.

4. We do not think so.

5. It depends on the kind of chemicals used. Certain kinds would certainly harm the cows.

6. If dumping sewage in the ditch becomes a public nuisance the council can call on the health inspector and if thought advisable in the interests of health he could compel A to cease using the open ditch for the disposal of sewage.

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Think this over—we have 175 head of Holsteins, 50 cows from calves up to 2 years, as well as a dozen yearling bulls, and anything you may select is for sale. Breeding and individuality the very best.
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Hospital for Insane, Hamilton, Ont.

Record of Performance or Record of Merit dams, and the grand bulls, Sir Korndyke Wayne De Kol, Fayne De Kol. Prices right. APPLY TO SUPERINTENDENT.

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Anything in herd for sale, which consists of 22 cows, 6 two-year-old heifers bred to freshen next fall and early winter, nine yearling heifers not bred and nine heifer calves. All bred in the purple and priced right.
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Riverside Holsteins—Herd headed by "King Johanna Pontiac Korndyke," a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 156.92 in 30 days in 7 days. His 10 near relatives have official records that average 34.94 lbs. butter bred here. Choice young bulls for sale.
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From high-testing daughters of Pontiac Korndyke. Photo and pedigree sent on application.
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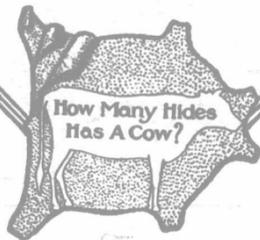
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A few young bulls or sale from Record of Performance dams, imported and Canadian-bred, sired by Auchenbrain Sea Foam (imp.)...

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Two yearling bulls sired by Lakeside Day Star (Morton Mains Planet). Write for description. J. R. Kennedy, Knowlton, 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 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, imp., or Canadian-bred dam or sire, write me. Females all ages. Prices are easy. D. A. MacFARLANE, Kelso, Quebec

Questions and Answers. Veterinary.

Spinal Trouble—Haematuria.

1. Year-old draft colt is dumpy and dull, stands a great deal in the field, and when moving goes stiff on her hind legs and goes a little sideways. She showed similar symptoms two months ago. I gave her saltpetre and she got all right until a few days ago. 2. Yearling heifer passes bloody urine. W. J. S. R.

Ans.—1. This is a disease of the spine. Recovery is usually very slow, and sometimes does not take place. Keep her as quiet as possible in a comfortable box stall. Purge her with 1/4 of a pint of raw linseed oil, and follow up with 1 dram nux vomica 3 times daily. Feed on easily digested, laxative food, as grass and bran.

2. Give her a tablespoonful of tincture of iron in 1/2 pint cold water, as a drench twice daily until blood ceases to pass. V.

Muscular Soreness.

Three-year-old draft colt was worked hard and highly fed on grain all spring. On June 21 she was one of 4 horses on manure spreader. She went to the field all right, but when brought back to the yard she walked as if sore in front. When the second load was ready she was so stiff she could hardly move. I sent for my veterinarian and he treated her. The stiffness disappeared, but the muscles of the shoulders swelled. The swelling has disappeared but she is still stiff. I sent for my veterinarian and he took some blood from her and left it in a pail. The next morning a yellowish-white, thin fluid was on the top, with more solid substance beneath. F. F. Q.

Ans.—The mare was too young to stand the hard, steady work and high feeding. Her muscles became sore. The condition of the blood is normal, consisting, as all drawn blood should, of serum and clot. Your veterinarian is, no doubt, doing all that can be done for her. She should be given a long rest. It may be that she will suffer from sweeney. It is a great mistake to work three year olds so hard. It generally shortens their life of usefulness, even though they may not show immediate results. V.

Miscellaneous.

Orange Hawk Weed.

What is the name of this weed picked in the pasture field, a field that has been pasture for ten or more years? J. S. M.

Ans.—The weed is Orange Hawk weed or Devil's Paint-Brush. It is a perennial, a vigorous grower and spreads rapidly in meadows and pastures. It roots close to the surface of the ground. On small patches where the plow cannot be worked apply salt, 18 to 20 lbs. per square rod. Plowing, followed by surface cultivation will kill it.

A Daughter's Belongings.

My daughter at the age of 18 won a victrola in a contest. She is now almost twenty-two and has married a Protestant untold to us, she knowing how much it was against our will, as we have been Catholics for several generations back. She left her clothing and a number of presents which she received at different times including a mink set of furs, which I gave her on her twenty-first birthday.

- 1. Can she take the victrola, it having been on my property since she got it almost 4 years ago?
2. If so, can I charge storage?
3. Can she charge me for use of it?
4. Can she take all clothing?
5. Can she take furs and other presents?
6. Is she of age?
7. If she can take belongings, has she to collect them herself or can she send a substitute? Ontario. J. T. V.

Ans.—1. Yes. 2. Not without first giving her notice that you intend to do so after a certain date (to be stated in the notice) unless she removes the instrument by that date. 3. No. 4. Yes—all that is hers. 5. Yes. 6. Yes. 7. She can send someone else as her agent.

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The Magnet today is the closest skimming separator on the market. More than that, Twenty, thirty, even fifty years from now it will skim milk, hot or cold, of any degree of butter-fat just as cleanly and perfectly as it does today.

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Cheap machines are made of cheap materials to sell at a low price. The Magnet is built of tested materials to give service for a lifetime. Best of castings, sound steel parts and bronze gearings make the Magnet the sturdiest and strongest separator ever right through your lifetime and into the next generation.

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Each week we receive letters from farmers in every province of Canada telling us of the great satisfaction their "Magnets" are giving. George Telfer of Paris, Ont. has run his Magnet twice a day for seventeen years paying only a few cents for repairs. Every owner is proud and enthusiastic because the Magnet never gives the least bit of trouble. They like the easy running and appreciate the perfect skimming of this honestly built separator. They're glad of the time it saves, because it's so convenient for cleaning. And they know it's a lifetime investment that's paying returns now and will pay them years from now.

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Farmers who own a Magnet are insured against repair costs. The square gears never run down. The spindle runs freely on ball bearings without pressure and so cannot map like spindles do in cheap worm-gear machines. No wobbling, no oiling, no complex parts. One tool—the Magnet wrench—is all you need for adjustment.

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The more you use the Magnet the easier it is to run. It will save dollars of your dairying expense. The Magnet is soundly built and very seldom needs repairs. Every ounce of butter-fat in the milk will be delivered by the perfect skimming Magnet. No giving valuable cream to the pigs with a Magnet in your dairy. And it will pay for itself in the time and labor it saves you. Five minutes—no more—is all you need to spend in cleaning the Magnet. None of those awkward discs in the Magnet skimmer. It's one piece and open so even a child can skim it.



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Young sow pigs recently weaned for sale. All boar pigs and sows advertised have been sold.

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Young sows bred for September farrow and some nice young boars. Write—
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Morrison Tamworths and Shorthorns—Bred from the prize-winning herds of England. Tamworths, both sexes. 12 young boars fit for service. 12 young sows to farrow in July and August. Choice Shorthorns of the deep-milking strain.
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Young stock, either sex, for sale from our imported sows and boar. Also some from our show herd headed by our stock boar, Ringleader. Terms and prices right.
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ELMFIELD YORKSHIRES Choice ones—ranging from 2½ to 5 months. Will be ready for fall service. Prices right.
G. B. Muma, R. R. 3, Ayr, Ont. Paris, G.T.R. Ayr, C.P.R., Telephone 55 R 2, Ayr Rural.

AVONHURST YORKSHIRES
Two choice litters, both sexes, from one of the most prolific strains in Canada. They're fit to win, too.
B. ARMSTRONG & SON, Codrington, Ont.

Yorkshires and Shorthorns—We are offering two choice Kilbran Beauty bulls, one from the cup, cow, Scotch Thistle. Also a choice lot of young Yorkshire pigs of both sexes, from a litter of eighteen. Also a 600-lb. dam, A. McKinnon, Erin, R. M. D. Hillsburg or Aitona station. Long distance phone.

Questions and Answers.
Miscellaneous.**Absence of Oestrus.**

I have two cows three and five years old, respectively, that calved during the winter and have not come in season since. These cows are healthy and thriving and cleaned all right at calving. Can you prescribe anything to bring them in season as I would like to breed them again?
E. R.

Ans.—We would suggest feeding the cows a little grain if they are not already getting grain. If getting grain, try adding a little heavier meal or some oil cake or special meal. Turn them out in a yard with the bull for a short time each day if possible.

Painting Silo—Fir.

1. I am building a silo and would like to know which would be the better method of painting the staves, first, with linseed-oil paint after erected, or, second, painting with creosote inside and outside? I have R. C. Fir staves.

2. Is the Fir of commerce the same as Douglas Fir?
ENQUIRER.

Ans.—1. Of the two the creosote method looks the better.
2. A local lumber dealer informs us that the only fir they handle is Douglas Fir, so it is likely that it is the ordinary Fir of commerce.

Horse Stocks.

I have a six-year-old gelding I have been working and feeding well, and his right hind leg has been stocking all spring. Can you advise me what to do to clean that out if possible without having to reduce flesh too much? Have not consulted a veterinarian.
J. S. H.

Ans.—Purge with 6 to 10 drams aloes and 2 drams ginger. After the bowels have regained their normal condition give a dessert spoonful of saltpetre in damp feed once daily for three or four days to act upon the kidneys. Feed grass or green feed. Cut down the allowance of grain, especially when he is idle. Avoid violent changes in feed. If stocking persists hand rub the legs frequently and bandage moderately tightly with woollen bandages.

Lymphangitis.

We have a four-year-old mare that has swollen up in the left hind leg. Her leg started to swell two or three months ago, but it always came down with exercise until now. It goes down some, but on the inside of her leg there is a lump about as big as half an apple, and it does not go away. If she has been standing in the stable for some time, she seems to get stiff on it and swings it out sideways when she walks. It is broken out in a couple of places.
A. P.

Ans.—This is lymphangitis. This disease has the peculiarity of being more frequently found in the left hind leg, although it is not uncommon in the right hind leg. Purge with 8 drams aloes and 2 drams ginger. Follow up with two-dram or three-dram doses of nitrate of potash three times daily. Bathe long and repeatedly with warm water. Apply camphorated ointment or other liniment after bathing. Reduce the grain ration. Keep comfortable. Do not exercise while soreness or lameness is well-marked. After lameness subsides exercise or work regularly. Substitute bran in part for grain, and be sure to cut down the grain ration when idle.

Trade Topic.

September 8 to 16 are the dates of this year's Western Fair, London's great exhibition. Prize-lists are being mailed. Get one. Preparations are well under way, and with the addition to the money offered, the new Process Building humming, and a big program of special attractions the Fair should be a bigger drawing card than ever. We are pleased to note, in the literature sent out, that the management is putting forth an extra effort to make the live-stock and agricultural end of the show the big thing this year.

PEERLESS-PERFECTION**Fencing for All Purposes**

There is scarcely a fence requirement that we cannot fill directly from our stock, no matter whether it be farm, poultry or ornamental fencing. We carry the largest stock of fencing and gate-carrying by any one company in the Dominion.

Every Rod Fully Guaranteed

PEERLESS Fencing is well known for its non-rusting qualities. Many of our customers have testified to this fact. Examine any piece of PEERLESS Fence in your neighborhood. Compare it with fences of any other make. You will find little or no rust on the PEERLESS. The longer you can protect a fence from rust just that much longer will it continue to stand up and do business. Send for our literature and learn about this high grade fence. Probably your dealer handles it. Dealers wanted in unassigned territory.

Banwell Hoxie Wire Fence Co.

Limited
WINNIPEG, MANITOBA
HAMILTON, ONT.

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

Summer Hill Stock Farm

Largest and oldest importers and breeders of

OXFORDS

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

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

Summer Hill Farm

THE HOME OF THE FAMOUS OXFORD

We breed and import Registered Oxfords. Rams, and ewes in any quantity for sale. All recorded. Positively no grades registered as pure-breeds.

Also no grades handled except by order.

PETER ARKELL & CO., Props.

Box 454, Teeswater, Ontario

Oxford and Hampshire Down Sheep

Farnham Farm The oldest established flock in America

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

ALL REGISTERED

PRICE REASONABLE

HENRY ARKELL & SON,

ROUTE 2.

GUELPH, ONTARIO

BLAIRGOWRIE SHROPSHIRE AND SHORTHORNS

100 Imported Shearling Ewes
25 Imported Shearling Rams
75 Canadian-bred Shearling Ewes

PRESENT OFFERING:

75 Canadian-bred Shearling Rams

20 Cows and Heifers in Calf

5 Bulls of serviceable age

JOHN MILLER

Ashburn, Ont.

Myrtle Sta., C.P.R. & G.T.R.

Duroc Jersey Swine, Jersey Cattle—In Duroc Jerseys we have either sex of any desired age, bred from winners and champions for generations back. In Jerseys we have young cows in calf, and young bulls, high in quality and high in producing blood.

Mac Campbell & Sons, Northwood, Ont.

OAK LODGE YORKSHIRES

We are in a position to supply boars and sows of different ages. We have an established type of Yorkshires that has been produced through many years of careful breeding and selection.

J. E. Brethour & Nephews,

Burford, Brant County, Ont.

YORKSHIRES

Our offering never better. Champion hog winner of 12 firsts, 5 championships, 2 years showing, still at the head. Boars and sows, all ages, same breeding as winners of export bacon in keen competition at Toronto in 1915.

Wm. Manning & Sons

Woodville, Ontario

ELMHURST LARGE ENGLISH BERKSHIRES
From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.
H. M. Vanderlip, Breeder and Importer, R. R. 1, Brantford, Ontario
Langford Station on Brantford and Hamilton Radial

CLOVERDALE LARGE ENGLISH BERKSHIRES

Sows bred, others ready to breed; boars ready for service; younger stock, both sexes, pairs not akin. All breeding stock imp. or from imp. stock. Prices reasonable.

C. J. Lang, Burketon, Ont. R. R. 3

BERKSHIRES
My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Sallys, the best strain of the breed, both sexes, any age.

ADAM THOMPSON

R. R. No. 1,

Stratford, Ontario

Lynmore Stock Farm

Our present offering is young breeding Berkshires, both sexes and any desired age, sire and dams imported, high-class in type and quality and priced right. Also one 2-year-old imported dairy-bred Shorthorn bull with official backing for generations back.

F. W. Cockshutt,

Brantford, Ont.

Maplehurst Herd of Tamworth Swine

S.-C. W. Leghorns and White Rocks—This herd has won about 90 per cent. of the prizes offered in the last ten years at the Canadian National, Toronto, Ottawa, London and the Guelph Winter Fair.

D. DOUGLAS & SONS,

R. R. No. 4,

MITCHELL, ONTARIO

Quality in YORKSHIRES

FOR SALE—We have a number of choice sows bred and others of breeding age; also a limited number of young boars.

RICHARDSON BROS.

COLUMBUS, ONT.

Newcastle Herd of Tamworths and Shorthorns—Stock boar and 2 aged sows for sale; fit for any show ring; also boars ready for service, and a number of sows bred for Aug. and Sept. farrow; others ready to breed, both sexes ready to wean; all descendants of imported and championship stock. A few choice bull calves, from 2 weeks up to a year old, from great dual-purpose cows; several extra good cows, with or without their calves; also heifers in calf to Broadlands, my present stock bull. Show stock a specialty. Prices reasonable. Long-distance phone.
A. A. COLWILL, R.M.D. No. 1, Newcastle, Ont.

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Boys, Read This!

We Want You to Solicit Subscribers for Us in Your Own Locality

And we intend to help you to succeed as evidenced in the new departments introduced in our issue of June 15 last and headed

AUTOMOBILES, FARM MACHINERY, FARM MOTORS

Power is becoming an important factor on the farm and on the road, and this new department will convey the very information that rural people will need.

Breakages and adjustments take place constantly, and often can be overcome very easily. This department deals with this, and a lot of very useful information can be obtained from it.

CANADA'S YOUNG FARMERS AND FUTURE LEADERS

This department has been inaugurated to meet the demands of an awakening spirit among the rural youth. They are ceasing to accept tradition as the guiding star in farm life. They are beginning to realize that sooner or later the obligations of the old homestead will fall upon their shoulders. Others will institute a home of their own, and with their brothers on the home-farm will become citizens of the community and Canada. Boys of to-day will be the farmers, law-makers and leaders of to-morrow.

The **HOME DEPARTMENT** fills a place in the home which no other paper can. Mother, and the smaller boys and girls each have their own favorite and special columns.

The **Farmer's Advocate** stands for the farmer's rights, is controlled by no party, clique or class, is strictly independent and unbiased, and gives its readers a class of comment not to be found in any paper tied up to a moneyed corporation or political party.

Boys and young men, you can do your friends a favor by calling upon them and explaining to them the virtues of The Farmer's Advocate. Tell them about our new departments. Show them that this is a practical farmer's practical paper, a household paper and a friend of the family. **Tell them we answer their questions free, and give them the benefit of the practical knowledge and experience of our large staff, as well as of our thousands of contributors.** You will be doing them a good turn if you can get them to subscribe. Get them now.

Write us at once, we pay liberal cash commissions.

The William Weld Co., Limited, London, Ont.

Box 108

Not Your Son, But Your Grandson



may have to repair the roof
you properly cover to-day with

British Columbia Red Cedar Shingles

They wear out in time, but **They Don't Rot**

Your stock will benefit by a **Red Cedar Shingle Roof**.
It is Cool in Summer and Warm in Winter.

British Columbia Red Cedar Shingles

Do not rot, rust, crack or blister. They are proof against rain, hail and wind, sun and frost. They will wear out by the mechanical action of the weather before they will decay. Properly laid, they will last forty to fifty years; in many cases they have lasted longer. A shingle roof is comparatively noiseless during a rain or hail storm; it does not rattle in the wind. They have a pleasing natural color and readily take any kind of stain or paint.

The following is an extract from an unsolicited letter, written April 18th, 1916, by James S. Houston, a contractor and builder, of Atchison, Kansas:

"I have been building houses in Kansas for 35 years, and I may also add that the best shingles I ever used came from British Columbia, so there is no doubt about their wearing qualities; in fact, they wear too well for us contractors, for when we put on one roof we never get to put on another in the same place; they never seem to wear out.

"From yours respectfully,

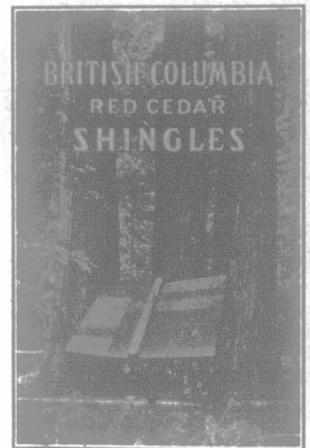
"JAMES S. HOUSTON."



British Columbia Red Cedar Shingles

make the
Most Attractive Covering
for the
Roof and Walls of a Building
and
Attractive Buildings
will

**Add 10 per cent. to the value of your
Farm or Ranch**



Ask your dealer for a copy of the
booklet on **BRITISH COLUMBIA
RED CEDAR SHINGLES**

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Excelsior Life Building Toronto, Ont., or Dominion Bldg., Regina, Sask.