

JUNE 10, 1920

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AND HOME MAGAZINE

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Dept. of Agriculture
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LV.

LONDON, ONTARIO, JUNE 17, 1920.

No. 1447

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PURITY FLOUR

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Enclosed please find 20¢ cents, for
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BUY "IDEAL" FENCE NOW!

If you want sure delivery of fence we suggest that you get your order in now. We were fortunate in receiving an allotment of steel wire which, until exhausted, will enable us to fill all orders immediately. In asking you to place your order now we do so to safeguard you against probable disappointment. It's not a question of late delivery but no delivery that you must guard against. This is true of any wire fence. Orders will be shipped promptly on receipt. Get yours in early.

Heavy "IDEAL" Fence

Made throughout of Full Gauge No. 9 evenly Galvanized Hard Steel Wire. Carried in stock in 20, 30 and 40-rod rolls.

- No. 4330** 4 line wires, 33 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 11, 11, 11. Per Rod
- No. 5400** 5 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 10, 10, 10, 10. Per Rod
- No. 6300** 6 line wires, 30 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8. Per Rod
- No. 6400** 6 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 7, 7, 8, 9, 9. Per Rod
- No. 7400** 7 line wires, 40 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 5, 6, 6, 7, 7½, 8½. Per Rod
- No. 7480** 7 line wires, 48 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 5, 6½, 7½, 9, 10, 10. Per Rod
- No. 8420** 8 line wires, 42 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6. Per Rod
- No. 842** 8 line wires, 42 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6. Per Rod
- No. 8470** 8 line wires, 47 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8, 8, 9. Per Rod
- No. 847** 8 line wires, 47 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8, 8, 9. Per Rod
- No. 935** 9 line wires, 35 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3, 4, 5, 5, 6, 6. Per Rod
- No. 948** 9 line wires, 48 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 6, 6, 6, 6, 6, 6, 6. Per Rod
- No. 9481** 9 line wires, 48 inches high, uprights 13 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 4, 5, 6, 7, 7, 8, 8. Per Rod
- No. 9500** 9 line wires, 50 inches high, uprights 22 inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 8, 8, 8. Per Rod
- No. 950** 9 line wires, 50 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 8, 8, 8. Per Rod
- No. 1050** 10 line wires, 50 inches high, uprights 16½ inches apart. All No. 9 Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3½, 4½, 5½, 6½, 8, 8, 8. Per Rod

Old Ontario south of North Bay	New Ontario and Quebec	Nova Scotia, New Brunswick, P.E. Edward Island
41c	43c	44c
52c	55c	57c
55c	58c	60c
60c	63c	65c
67c	70c	72c
70c	73c	75c
75c	78c	81c
80c	83c	86c
76c	79c	82c
83c	86c	89c
88c	92c	95c
92c	96c	\$1.00
\$1.04	\$1.08	\$1.12
85c	89c	92c
92c	96c	\$1.00
\$1.00	\$1.04	\$1.09

MEDIUM HEAVY "IDEAL" Fence

Made throughout of Hard Steel Wire, evenly Galvanized. Carried in stock in 20, 30 and 40-rod rolls.

- No. 630** 6 line wires, 30 inches high, uprights 16½ inches apart. All Hard Steel Wire, evenly galvanized. Spacing 4, 5, 6, 7, 8. Per Rod
- No. 641** 6 line wires, 41 inches high, uprights 16½ inches apart. All Hard Steel Wire, evenly galvanized. Spacing 7, 7, 8, 9, 10. Per Rod
- No. 6410** Same as Style No. 641 with uprights 22 inches apart. Per Rod
- No. 726** 7 line wires, 26 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4½, 5, 6. Per Rod
- No. 7261** Same as Style No. 726, but with uprights 8 inches apart. Per Rod
- No. 7266** Same as Style No. 726, but with uprights 6 inches apart. Per Rod
- No. 742** 7 line wires, 42 inches high, stays 13 inches apart. All Hard Steel Wire. Spacing 6, 6, 7, 7, 8, 8.
- No. 834** 8 line wires, 34 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4, 5, 6½, 8. Per Rod
- No. 936** 9 line wires, 36 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3½, 4, 4½, 4½, 5, 5½, 6. Per Rod
- No. 949** 9 line wires, 49 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 4, 4, 5, 6, 7, 7, 8, 8. Per Rod
- No. 1150** 11 line wires, 50 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 3, 3, 3, 4, 4, 5, 6, 7, 7, 8. Per Rod
- No. 1448** 14 line wires, 48 inches high, uprights 13 inches apart. All Hard Steel Wire, evenly galvanized. Spacing 2½, 2½, 2½, 2½, 2½, 2½, 3, 3½, 4, 4, 5, 5½, 5½, 6. Per Rod

Old Ontario south of North Bay	New Ontario and Quebec	Nova Scotia, New Brunswick, P.E. Edward Island
41c	42c	43c
42c	43c	44c
40c	42c	43c
45c	46c	48c
53c	55c	57c
59c	61c	63c
51c	54c	56c
54c	56c	57c
56c	58c	61c
62c	64c	66c
71c	73c	75c
83c	85c	88c

"IDEAL" Poultry Fence

Top and bottom wires No. 9, all others No. 13. Carried in stock in 10 and 20-rod rolls.

- No. 1848** 18 bar, 48 inches high, cross-bars 8 inches apart. All Hard Steel Wire, evenly galvanized. Spacing, from bottom up, 1½, 1½, 1½, 1½, 1½, 2½, 2½, 2½, 2½, 2½, 3, 3, 3½, 3½, 4, 4½, 5. Per Rod
- No. 2060** 20 bar, 60 inches high, cross-bars 8 inches apart. All Hard Steel Wire, evenly galvanized. Spacing, from bottom up, 1½, 1½, 1½, 1½, 1½, 2½, 2½, 2½, 2½, 2½, 3, 3, 3½, 3½, 4, 4½, 5, 6, 6. Per Rod

\$1.05	\$1.10	\$1.15
\$1.15	\$1.20	\$1.25

"IDEAL" Lawn Fence and Lawn Gates

Write for Price List and Catalogue. Improved "IDEAL" Farm Gates

Horizontal wires all No. 9, only 6 inches apart. Uprights No. 12 wire, 6 inches apart. Diagonals No. 13, furnish a strong, close mesh chicken-proof and pig-proof. New patented brace tightener and latch—the biggest gate improvements in years.

Length, feet	Height, inches	Old Ontario south of North Bay	New Ontario and Quebec	Nova Scotia, New Brunswick, P.E. Edward Island
3	36	\$4.00	\$4.20	\$4.40
3	42	4.25	4.45	4.70
3	48	4.50	4.75	4.95
3½	36	4.25	4.45	4.80
3½	42	4.50	4.75	4.95
3½	48	4.75	5.00	5.25
4	36	5.00	5.25	5.50
4	42	5.25	5.50	5.75
4	48	5.50	5.75	6.00
10	42	8.50	8.95	9.35
10	48	8.75	9.20	9.65
12	42	9.00	9.45	9.90
12	48	9.50	10.00	10.45
13	48	9.75	10.25	10.75
14	48	10.25	10.75	11.30
16	48	11.00	11.50	12.00

Improved "IDEAL" Stock Gates

Wire filling No. 9 throughout, same as Heavy "IDEAL" Fence. No. 8 fence filling used. Each wire put in by hand.

Carried in stock in following sizes only:

12 feet long, 51 inches high, each	\$9.00	\$9.45	\$9.90
13 feet long, 51 inches high, each	9.25	9.70	10.20
14 feet long, 51 inches high, each	9.50	10.00	10.45

Fence Supplies, Brace Wire and Barb Wire

Ideal Steel Posts, 1½x1½x7' long	\$0.60	\$ 0.65	\$ 0.68
Ideal Fence Stretchers, each	12.50	13.75	14.20
Universal Post Hole Digger, each	1.50	1.65	1.75
Galv. Staples in 25-lb. boxes	3.50	3.50	3.60
Galv. Staples in 100-lb. boxes	2.20	2.30	2.40
No. 9 Brace Wire, per 25 lbs.	8.00	8.30	8.60
No. 9 Coiled Spring Wire, per 100 lbs.	2.10	2.40	2.50
	7.40	7.70	8.00

Barb Wire

4-pt. 4' Galv. Cabled, per 100 lbs.	\$8.00	\$8.25	\$8.50
4-pt. 5' Galv. Cabled, per 80-rod spool	6.70	6.95	7.20
2-pt. 5' Galv. Cabled, per 80-rod spool	6.40	6.65	6.90

Our Guarantee—"Ideal" Fence is guaranteed to be made as the best fence should be made,—to be made exactly as represented. If you are not satisfied with "Ideal," return it at our expense and get a new lot or your money back. This guarantee covers everything—no conditions—no loop-holes.

Reference—The Canadian Bank of Commerce.

Ideal Fence and Spring Company of Canada, Limited
1050 McDougall St. WINDSOR, ONTARIO 435 Coristine Bldg., Montreal, Que.

Tudhope-Anderson WIRE Steel Wheels

make your work easier
How much easier to load and haul around the farm with a low wagon that won't sink in the soft soil and spoil the ground or tire out the horse! There's a Tudhope-Anderson Wide Tire Steel Wheel for your truck-wagon. Write us now for order-blanks and full particulars about wide tire Steel Wheels for work about the farm. Can be made to fit any axle or axle bearing—diameters, 20" to 60"; tire widths, 8" to 10". We also manufacture Low Down Wide Tire Steel Wheel Trucks.



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BETWEEN MONTREAL, TORONTO, DETROIT AND CHICAGO

Unexcelled dining car service
Sleeping Cars on Night Trains and Parlor Cars on principal Day Trains.

Full information from any Grand Trunk Ticket Agents or C. E. Horning, District Passenger Agent, Toronto.

GILSON SILO FILLERS

THE GILSON SILO FILLER is a blower which can be successfully operated with as little power as 4 h.p. There is a Gilson Silo Filler for every purpose—for the individual farmer, for the syndicate, and our large capacity machine for the custom jobber. We guarantee every Gilson Silo Filler to cut and elevate more ensilage with the same power than any other blower cutter.

Will Silo Filling Time find you ready?
Write for catalogue to-day.
Gilson Mfg. Co. Ltd.
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NATIONAL DAIRY COUNCIL OF CANADA

This Council has saved the milk producers of Canada hundreds of thousands of dollars in preventing shipping rates on milk and cream from being increased. It wants to educate the consuming public to appreciate the food and the economic value of milk and its products so that they will use more of them and increase the home market. The Council asks every dairy farmer in Canada to help it by giving 50 cents towards its funds. With the patron's consent this 50 cents will be deducted from his June or July payments by the Concern to which he ships his milk or cream, and will be sent by that Concern to the Council. All dairymen should help to protect and promote the great dairy interests of Canada.

E. H. STONEHOUSE, President
Weston, Ontario

D'ARCY SCOTT, Sec.-Treas.
Ottawa, Ontario

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The "Farmer's Advocate" has been working for you since 1866. Send one new subscription and \$1.50 and we will advance the date on your own label 6 months.

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easier to load and haul
in the soft soil and
or tire out the horse
Anderson Wide Tire
your truck-wagon.
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Wheels for work about
the farm. Can be made
to fit any skain or
axle bearing—diam-
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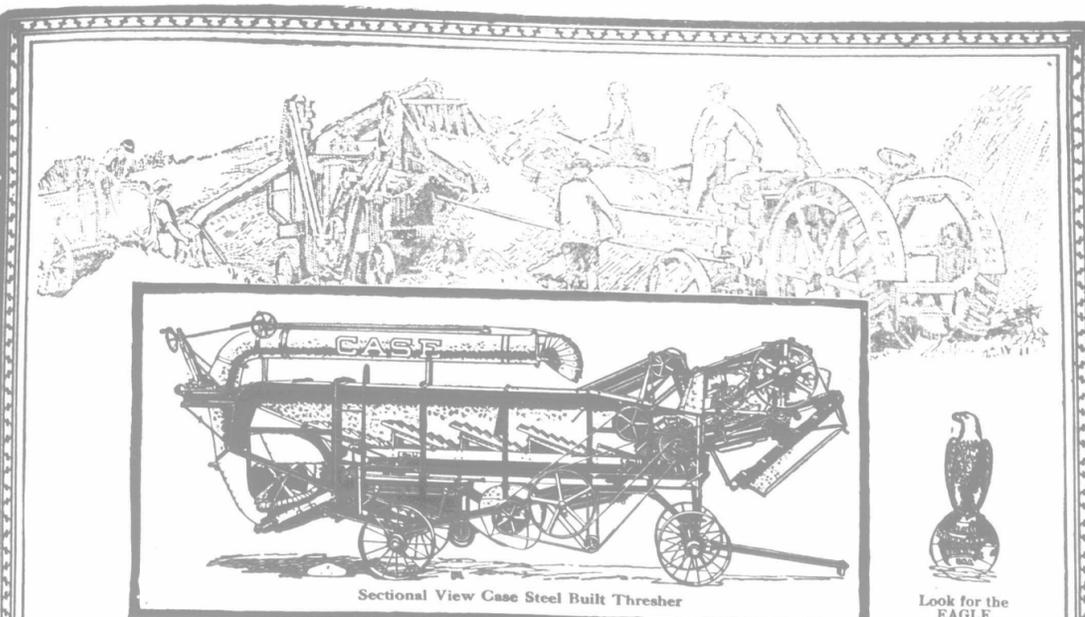
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Look for the
EAGLE
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Case threshers Save Your Crop

GOOD threshing is the climax of good farming. It's what you have been working for ever since you began preparing ground for seeding. It's just as important as fertile soil, summer showers and harvest sunshine,—and it's up to you. If you do not own a Case Thresher, the next best thing is to employ one.

The Case Steel Built Thresher, in any of the six sizes we manufacture, is the machine of *clean threshing, thorough separation, perfect cleaning and unequalled saving.*

You owe it to yourself to save all you harvest. You can do it with a Case Machine. It successfully handles Rice, Flax, Peanuts, Peas and Beans, Rye, Oats, Barley, Wheat, Clover and Alfalfa, Millet, Buckwheat, Timothy, Orchard Grass, Kaffir Corn, Sorghum, Broom Grass Speltz, Hungarian Grass, Red Top, Blue Grass, Milo Maize, Sudan Grass and Feterita.

After passing the cylinder, where all the grain is threshed and most of it separated, the straw is shaken,—shaken—shaken;—230 shakes a minute. Note the improved straw-rack, the great separating surface and ample space for straw.

Write for catalog of Case Steel Built Threshers showing sizes suitable for the individual farm or for custom threshing on the largest scale.

J. I. CASE THRESHING MACHINE CO., Inc.

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Making Superior Farm Machinery Since 1842

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POWER FARMING MACHINERY

To avoid confusion, the J. I. CASE THRESHING MACHINE COMPANY desires to have it known that it is not now and never has been interested in, or in any way connected or affiliated with the J. I. Case Plow Works, or the Wallis Tractor Company, or the J. I. Case Plow Works Co.

NOTE
We want the public to know that our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

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K&S Tires

Made of
Mileage

Stand
the
Severest
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TOWERS FISH BRAND REFLEX LONG COATS

"Take the Wet out of Rain."

Delivery men and other outside workers who wear these coats keep warm and dry in spite of storms.

Famous Reflex edges prevent rain penetrating in the front.

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HALIFAX WINNIPEG
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"Cost to Cost Service"

Fish Brand
Laughs at
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America's
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Dog
Remedies

BOOK ON
DOG DISEASES,
And How to Feed

Mailed free to any address by the Author.

H. Clay Glover Co.
Inc.
118 West 31st Street,
New York, U.S.A.

Exclusive Features in the **MOLINE** UNIVERSAL TRACTOR

THE principle of doing all field operations with one man sitting where he can watch his work is correct, or farming has always been done backward, and the operator should always have ridden or led his horses, instead of driving them.

The Moline Universal Tractor places the power of nine big horses where the horses stood; is driven just like horses are driven—from the seat of the implement; and is hitched up to the implement just like horses are hitched.

Exclusive Features

1. Does all field work, including cultivating, harvesting and belt work.
2. Both tractor and implement operated by one man.
3. Tractor and implement form one unit.
4. Operator sits on implement at centre of all controls of tractor and implement.
5. Operator sees his work. "Foresight is better than hindsight."
6. Tractive power in front of work; operator behind it.

Exclusive Results

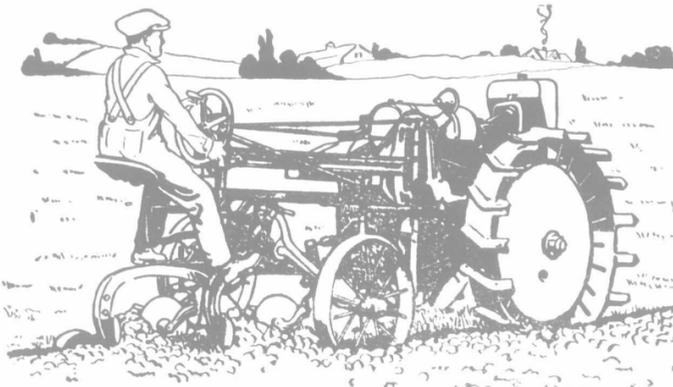
1. No duplication of any work by horses.
2. A saving in wages.
3. Entire outfit turns short, backs, and makes fence corners produce.
4. Ease of operation.
5. Better work.
6. Power used as horses are used.

NOTE
If desired, you can use the "drag behind," or horse-drawn implements you now have, the same as with other types of tractors.

See your Moline dealer, or write us for full information.

Tractor Division
Willys-Overland
Limited
Toronto, Canada

MOLINE PLOW CO.
MOLINE, ILL.



Methods of Growing Tomatoes.

Any good garden soil is suitable for tomatoes. It is usually best to delay manuring the plants until after the first fruit has set. Most amateurs make the mistake of planting in soil that is too rich in nitrogenous manures, which produces great vines with late fruit or a very large percentage of green fruit. Once the fruit has set, then liquid or other forms of manure may be applied generously.

A series of experiments were conducted with two varieties, "Bonny Best" and "Spark's Earliana," for several years at the Charlottetown Experimental Station, to determine the best method of growing tomatoes. Five methods were used with each variety as follows: No. 1. The plants were set four feet apart each way and the plants allowed to spread over the ground. They were unpruned and left lying on the ground.

No. 2. Planted two feet by four feet apart. The tomatoes were pruned to two stems and tied to wires.

No. 3. Planted two feet by four feet apart. The tomato plants were pruned to one stem and tied to stakes.

No. 4. Planted two feet by four feet apart, pruned to one stem and tied to wires.

No. 5. Planted two feet by four feet, pruned to one stem, tied to stakes and one-half of the foliage removed during the ripening period.

The first method produced the greatest quantity of fruit each year with both varieties. The tomatoes were later ripening than with the other methods, and the total quantity of ripe fruit from the plot was less than on the plots grown by the second method, where the plants were pruned to two stems and fastened up with wires. The second method gave the largest returns of ripe fruit. This was closely followed by method No. 3, which produced the most early ripe fruit though not the greatest total quantity. The removal of the foliage, in method No. 5, decreased the quantity of both ripe and green fruit, but greatly increased the percentage of ripe fruit on the plants.

Large quantities of tomatoes can be produced, with the least amount of labor, by planting four feet apart each way. A good percentage of ripe fruit can be obtained if the plants are not supplied with nitrogenous manures until after the tomatoes have set. The method that was most successful in producing ripe fruit early in the season was that of tying the plants to stakes placed two feet apart in the rows.—J. A. CLARK, Superintendent, Experimental Farm, Charlottetown, P. E. I.

The Rural Community Life Movement.

During the last five years there have gathered at the Ontario Agricultural College, Guelph, anywhere from 50 to 150 clergymen, Women's Institute officers and others interested in the economic, educational, social, religious, recreational and other problems of rural communities.

This year the Summer School for Rural Leadership opens on Monday, July 26th, and closes Friday, August 6th. President J. B. Reynolds of the Manitoba Agricultural College, Winnipeg, is to be the principal lecturer. He is to give a course of ten lectures on rural problems. Other subjects to be discussed include consolidation of rural schools, the church's program of Boys' work and Community recreation, county Y. M. C. A. work, mental hygiene, appreciation of music, etc.

Some time during the school the Hon. Manning Doherty and Hon. R. H. Grant will speak on the work of the Departments of Agriculture and Education. J. J. Morrison will speak on the "U.F.O." its aims and objects.

Further information regarding the school may be secured by writing the President, Ontario Agricultural College, Guelph.

A Subscriber for 43 Years.

Have retired from farming but have taken "The Advocate" so long I can't do without it. I think I must be one of the oldest subscribers, as I have taken it 43 years, and my father took it before I left home. I find it the best paper out of eight others I take.

Halton Co., Ont. W. W. FOSTER.

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A PPEARANCE is often deceptive—and no one can tell how much service a tire will give by looking at it.

In buying tires you must rely almost entirely on the integrity of the manufacturer who produces them.

You can depend absolutely on Partridge Tires because the factory is back of every tire they make.

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The Plug with the Hotter Spark



The ball point of the "M&S" spark plug concentrates the current and intensifies the heat. This gives a sure, hot spark—producing better combustion and greater power.

The "M&S" plug is made in all styles to suit every make of car—it is standard equipment on the popular new Overland Model 4.

The "M&S" plug is made in Canada and guaranteed to give complete satisfaction. Dealers—Ask your jobber for the "M&S" plug or write us direct.

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Barrett MONEY SAVERS for FARM and HOME

THESE Barrett Products will begin saving money for you the day you begin using them. And think how much worry they will save you! Your live-stock will be clean, contented and free from vermin, and your roofing troubles will be at an end.



Creonoid (Fly Oil) Lice Destroyer and Cow Spray

A boon to farmers, stockraisers and poultrymen. Destroys flies, lice, mites and vermin of all kinds.

It is easy to use and its low cost is many times repaid by the better health of all live-stock. When the worry caused by flies or other insects is removed by Creonoid, horses are healthier, hogs fatten more quickly, cows give more milk, and hens lay more eggs.

Put up in: 1-gallon cans (12 to the case), 5 and 10-gallon cans, 1/2 barrels and barrels.



Everlastic "Rubber" Roofing

The biggest value in roll-roofing on the Canadian market. Made of high grade waterproofing materials. Is low in cost, easy to lay, staunch and durable.

More than a million rolls of Everlastic "Rubber" Roofing were sold last year throughout the world.

Made in three weights, light (1 ply); medium (2 ply); and heavy (3 ply). Rolls contain 108 square feet. Nails and cement with each roll.



Everlastic Liquid Roofing Cement

Unequaled for re-surfacing worn-out felt and "Rubber" roofs.

Has the consistency of thick molasses; is easy to apply and dries quickly into a hard, elastic, wonderfully durable coat. Proof against moisture, acids, alkalies and fumes. Has same base as Barrett Specification Pitch, which is famous for its waterproofing qualities.

Comes ready for use in packages ranging from 1 pint tins to 40 gallon barrels.

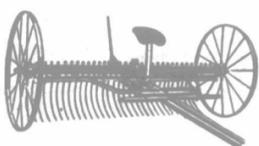


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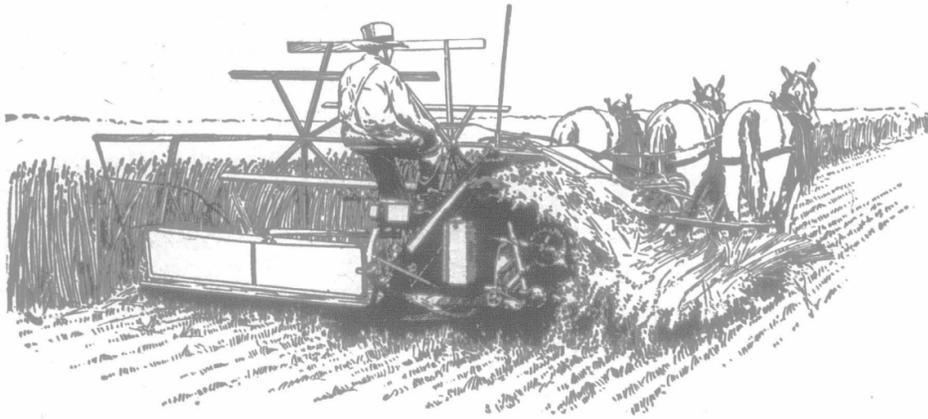
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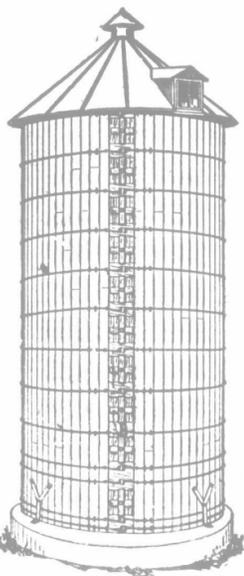


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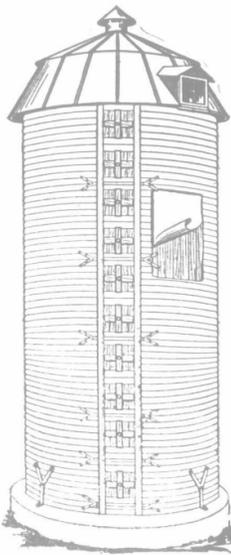
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LV.

LONDON, ONTARIO, JUNE 17, 1920.

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EDITORIAL.

Infertile eggs are preferable to fertile ones for storing. Pen up or eat the rooster.

There is no scenery anywhere to compare with a well-farmed countryside in June.

One noxious weed allowed to seed may result in several thousand weeds next year. Know the bad weeds and swat them early.

Now that corn planting is finished the cultivator should be kept going to keep down the weeds. Once a week is not too often.

Patrons of cheese factories should ask themselves whether the local cheese board is the best medium that can be devised for the marketing of cheese.

There is every reason for believing that a much better quality of cheese would result from a more general introduction of co-operative cheese factories.

Some exceptionally fine fields of red clover and alfalfa were seen in the County of Lambton a few days ago. Lambton is strong on fall wheat and clover.

In spite of the fact that underdrainage now costs in the neighborhood of \$50 per acre, a good deal of land is being drained this year where a supply of tile can be obtained.

Up to April 30 the Agricultural Branch of the Soldier Settlement Board had received 51,877 applications for qualification certificates from the different provinces.

Unless you are keeping the male bird for breeding purposes next year, he will serve a better purpose by being consigned to the pot than to be allowed to run with the flock.

The prospects for a fruit crop seem good except for strawberries and possibly raspberries. The price of sugar, however, will be the thorn in the flesh of the fruit grower this year.

The trustees and ratepayers of the rural school fair districts should begin to boost now for the school fair that will be held in the fall. Get behind it with your support and encourage the children.

When doing the roadwork see that the ditches are cleaned out. Of what use is it to pile gravel on the road and then roll sods into the ditch to dam back the water and soften the road foundation?

Anyone who has not seen the good farming districts of Western Ontario should not miss the opportunity this month. There is nothing finer anywhere than some of the townships we have seen during the last two weeks.

Some of the steers that are on grass in Western Ontario were bought at big prices, but the quality of the animals one sees through the country is perhaps better than usual. More rains are needed to bring along the pasture.

Too much attention should not be paid to the anti-Canadian talk that is so common in the United States just now. This is merely the pre-election seduction of anti-British votes, and represents nothing but party politics. The thing for us to do is to discount it 99 per cent. and saw wood.

Cheese Boards.

With the development of dairying in Canada, and the opening up of new markets for dairy products, the problem of successful marketing must become more acute as time goes on or until the dairymen succeed in organizing a co-operative marketing service which will do for the producing industry as a whole what has been done up to the present for the producers to each branch of the industry. For many years the producers of milk for cheese making have secured a market largely through the medium of cheese boards, which are referred to in an article in this issue, and in principle at least correspond to local auction boards. The cheese factories in each district have organized after the manner of a board of trade and hold regular meetings throughout the cheese season in some convenient centre, at which salesmen and buyers congregate and the cheese offered by each factory is boarded and offered at auction. The salesmen are appointees of the owners or patrons of factories and receive a small seasonal fee or salary, while the buyers are, for the most part at least, representatives of the large cheese and produce dealers. These boards have in the past possessed the advantage of bringing those who operate in the world's markets practically to the door of the factory, while at the same time making it possible for the cheese of a particular district to develop a reputation for excellence that was sometimes reflected in a somewhat higher price for the offerings on that particular board.

From a local standpoint it cannot be denied that such advantages deserve consideration, but at the same time it is equally true that they can lead and have actually led to far weightier disadvantages. A 100-ton factory utilizes in the neighborhood of 2,000,000 pounds of milk per season and carries on a business of at least \$50,000. With a business of this size multiplied hundreds of times over the Province of Ontario alone, it is extremely doubtful whether a large number of cheese boards can dispose of the make to the dealer to the best advantage. There is no particular economy in the system that requires from twenty to fifty or more men to meet once every week or two in order to dispose of a few hundred or thousand boxes of cheese each time. The dealers must have their buyers on the road attending these board meetings and unless several factories combine to secure the services of a single salesman, someone must represent each factory.

Modern business methods would seem to demand a more efficient method of selling even were it not for certain evils which have developed. These evils are many and varied, although they are not all common to all boards. The chief one perhaps is the fact that a great deal of the cheese is not sold on the board at all, but is sold on the street afterwards. Some salesmen recognize the fact that bidding on the board may degenerate into a farce and board their cheese solely for the purpose of letting the buyers know what they have to offer. They know that the boarding of cheese is a game that the buyers often play for all it is worth, and that unless a buyer wants cheese badly or is anxious to set a high price for his competitors, he will rarely bid his best price in open competition. A recent example of this is the case of one board in Western Ontario where bidding stopped at 26½ cents with no sales. Afterward, however, 29 cents was paid on the street for the offerings of several factories. This is not bringing the world's market to the factory by any means, so far as the cheese board is concerned and in such cases the board degenerates into a mere excuse for buyer and salesman to come together. Another disadvantage of the Board is that the cheese of individual factories is not sold on a quality basis, particularly in the case of the smaller factories or the large combinations. The board should be replaced by a more competitive market and one where the sale of a factory's output would be more of a business and less of a game. From the

standpoint of the industry at large the co-operative sale of a graded product by auction at some large market centre like Montreal would be far more preferable.

Independence.

A correspondent in this issue calls attention to what he considers to be the danger of a too-independent spirit on the part of farmers. Certainly the sentiments to which he makes reference near the first of his letter are not uncommon, but at the same time it will not do for us to become too impatient of the progress that is being made. Looking back over the history of Canadian agriculture as far as we may, it is quite easy to see that a certain independence and security against hunger have been the chief joys of farming from the material viewpoint, and even in these times the thought that the farmer will be the last to go hungry is no mean consolation. But consoling thoughts are after all only the brighter side of darkened clouds, and the knowledge that when other people are going hungry we may still eat, is poor justification for a too-independent spirit. Our correspondent is largely right in his arguments, although great progress toward co-operation has been made during the last few years and there is promise of much fuller development in the years to come. The fact that the farmer is a land owner whose occupation is food production will always tend toward conservatism and a certain sense of security. For this reason sensational progress need never be expected, although it be equally true that the economic problems of agriculture will only be solved as farmers themselves tackle them through the medium of co-operative enterprise. Too much independence proves costly in these days of modern business development and giant mergers. Individual farmers whose markets are world wide can never get the most for their labor working singly, and the only alternative at present is co-operation. True co-operation need not destroy personal liberty nor will it put a curb on initiative if properly applied. It is democracy in business and carries with it many advantages. Its only obligations are fairness, honesty and neighborliness.

Cull the Flock.

June is now with us and July and August are coming. Sometime during this period the poultry flocks should be carefully culled and rid of the unprofitable layers. Perhaps the most notable contribution of the last two or three years made by investigators in poultry science has been that showing the relation between egg-laying and body conformation. Careful investigation in both the United States and Canada has proven beyond any doubt that it is quite possible at certain seasons of the year to determine by a physical examination of the members of a flock which are the profitable and which the unprofitable ones. The key to profitable egg production is the winter performance of the hen, and experience has shown that eggs during the hot summer months are relatively as difficult to obtain as during the cold months of winter; hence the examination of birds at this time and a rigid culling of non-performers is an insurance of profit when eggs are fewest and highest in price.

For the last year or two "culling" demonstrations have been conducted throughout Ontario by the Poultry Department of the Ontario Agricultural College, Guelph. These demonstrations are given for the purpose of carrying to as many individual farmers as possible the newer knowledge regarding egg type in poultry, and it is not too much to say that any flock owner who will attend with a desire to learn, can save in feed and labor that would otherwise be wasted on unprofitable hens, two or three times as much as would be represented by the time necessary to attend the demonstra-

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tion. Ontario's poultry industry will stand very marked expansion. The efforts that are now being made by the United Farmers' Co-operative Company to improve on the marketing practices with regard to eggs and poultry, through grading, prompt handling, and co-operative sale, deserve to be seconded on the farms by more effort for profitable production. The high cost of feed and labor makes profitable production difficult in any case, especially in the winter months but the presence of even a few poor layers in the average flock may mean the difference between profit and loss.

Unfortunately, the poultry department on most farms is not regarded as seriously as it should be. Nevertheless, the very nature of our farm conditions demand that no possible source of income be neglected, and culling the flock sometime during the next two months and a half is the surest guarantee of a high average egg yield that is known to the poultryman. Get in touch with your Agricultural Representative and arrange to have your flock inspected by someone well qualified to do it.

A Bad Time to Retire.

Many farmers who feel inclined to retire are encouraged in the decision by the apparently high valuation placed on farm lands. Farms which formerly sold at nine or ten thousand dollars and would furnish another three thousand dollars at the sale, are now commanding eleven to fourteen thousand dollars, and the sales of farm stock and equipment bring around five thousand dollars. Under these circumstances many owners of farms think it a good time to sell out and end their days in opulence and ease. The fact is not fully realized that one dollar only goes as far as 50 cents did formerly, and when one comes to live in town on a fixed income the shoe is likely to pinch where it was thought the fit was perfect. Improved farms have not appreciated in value as much as the cost of construction has increased. The buildings necessary on a one-hundred-acre farm would now cost between \$10,000 and \$12,000 to build, and the structures on many farms could not now be put up for that. Improved farms are still selling below their actual value, and the money received in payment for them must be discounted 50 per cent, when compared with former times. In spite of the high-

sounding figures it is not a good time to dispose of farm property unless the owner has some eggs in another basket that require looking after.

Should Farm Women go on Strike.

By ALLAN MCDIARMID.

Have you ever thought what the result would be if all the farmer's wives and housekeepers in this country were to form a sort of a labor-union and then go out on strike, for something under an eighteen hour day and a pay-envelop every Saturday night?

If we haven't been thinking of anything of the kind we may as well give a few minutes to the subject right now, for the world is moving and its inhabitants are organizing in a way that the past has never seen. And the fact that the "female of the species" has always been more faithful to her home and family in the past than she has been to any "union" or organization, is no argument proving that she will always remain in that attitude, or frame of mind.

This "restlessness" that we are reading and hearing about all the time is not growing any less throughout the country, to put it mildly, and the lives that a good many of our farmer's wives lead is a pretty good proof that some kind of a change, no matter what, could hardly be for the worse. A certain amount of work is alright, for woman as well as man. In fact if she doesn't get it she is likely to go to the bad in some way or other. If she don't go crazy herself she'll put her husband crazy. But I have been told lately, by a person that should know something of the conditions about which he is talking, that in some parts of our country the day on the farm for the women workers is about as follows.

Getting up anywhere between four and five o'clock in the morning the first thing she does is to light the fire in the kitchen range. She then goes to the well for a pail of water, or gets it out of a cistern that is likely to have no pump. Her city sister turns a faucet to get her water-supply, but things like that are few and far between on the farm, as yet.

Getting the water for breakfast and so on, is only a small affair, of course, but on Monday mornings, when the family washing has to be done, the business is more complicated. She must get up a little earlier and carry considerably more water. And she doesn't have an electrically run washing-machine. Not in more than about one case in a couple of hundred. Elsewhere we find the old-fashioned wash-tub or the hand-run washing-machine. Monday is kept sacred to the wash-tub, but its sequel, in the form of the ironing-board, follows it in all the spare minutes through-out the week.

But to return to the breakfast. As soon as it is ready the rest of the family are called and, after a more or less stormy period, if there happen to be children, this part of the day's work is disposed of and the youngsters are started off to school, that greatest of institutions for the relief of tired housewives, and mothers in general, that has yet been invented.

Then, after our lady of the farm has the children and the men-folk out of her way, her day's work may be said to begin. Chickens must be fed, pails and milk-cans washed, as well as the breakfast dishes, and pots and pans past counting. Beds must be made and floors swept, to say nothing of the baking of bread that has to be got into the oven and out again before its time to begin preparations for dinner, for dinner has to be ready on time whether the sun keeps on his way, or not.

If she is one of the "real smart kind" she will have a garden, and the "cool of the morning" is the time to work in that.

We came very near forgetting the cleaning of the lamps, which should be done "first thing", as it's a bad commentary on a woman's ability as a house-keeper to have a row of uncleaned, unfilled lamps on the mantle-piece.

Then comes the dinner. One of the one thousand and ninety-five meals that have to be got ready every year. Getting dinner for a farmer and two or three hired men is a job that would constitute a day's work, and more, for some of our town ladies, who spend a considerable part of their time advertising for a cook. But with the farm house-keeper it is only an incident in the day's round. Her motto, if she has one, should be "Do the Next Thing". It's always there, looking her in the face.

Afternoon is the time set apart in the city for woman to do her calling on friends, or her "shopping". But in the country it is the time set apart for, and devoted to, sewing, mending and making clothes for the children.

First thing she knows it's supper-time, and, after this has been disposed of, the milking has to be done and the "weary mortal round" of washing up has to be attended to all over again.

Altogether, according to the source of my information, the poor farmer's wife has a pretty tough time of it. No time for holidays, no time for reading or recreation of any kind, no time for anything but just work. She gets from fourteen to eighteen hours a day of that. But nothing in the way of double pay for overtime. The trouble is, it seems, that she doesn't get paid at all. The "butter-money" and the "egg-money" are hers, in a way of speaking, but they all go for household expenses in the end. Even to buying the tobacco for the "old man."

Yes, if all this is true the women of the farm ought to organize, and then go out on strike, if their demands are not listened to.

I'm not a professional strike-promoter, by any means, but I've always believed in what I have heard called a "healthy discontent," and where people have allowed

themselves to get into a rut and are making no attempt to get out of it, they are none the worse of being stirred up to a realization of their position.

I don't know that the case of the farmer's wife is as black as it has been painted, but I have an idea that there may be room for improvements. Every woman on the farm is the best judge of her own conditions and circumstances. And if they're not what they should be, and might be, it's through herself that the cure has to come.

In justice to herself no woman should spend the whole of her waking hours in hard physical labor. There's nothing in it. Not even thanks from those that benefit by it. They soon get to take it all as a matter of course.

The secret of a better way lies in knowing that life is a many-sided thing, and that each side is worth developing. And that can't be done if the labor of the hands is allowed to crowd the mind and spirit of the individual off the stage of action, into the background.

Surely, we say, let the woman of the farm go out on strike. There are a whole lot of things in this world that are hers by rights, and she hasn't been getting them.

Nature's Diary.

By A. BROOKER KLUGH, M.A.

DIFFERENCES IN THE HAIRS OF MAMMALS.

A very interesting piece of research of much practical value has recently been completed by Dr. L. A. Hausman of the Zoological Laboratory, Cornell University,—the establishment of a method of identifying the furs of different animals by the character of the hair-structure.

The practice of dyeing, clipping, or pulling the furs of animals whose pelts are inferior in wearing quality, thus changing their appearance so that they are sold under the name of superior fur-bearing species, has become very common of recent years, and so accurately are some of the superior furs thus imitated that it is extremely hard to detect the fraud. Thus the fur of hare is sold as fox or sable; goat as bear; muskrat, dyed, as mink or sable; muskrat, dyed and pulled, as seal; white rabbit as ermine; opossum as beaver, and ground-hog, dyed, as mink, sable or skunk.

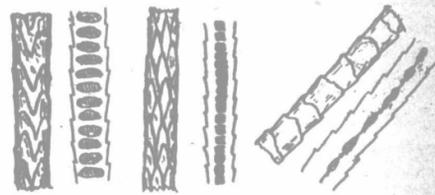


Fig. 1 Hair of Rabbit. Fig. 2 Hair of Fox. Fig. 3 Hair of Beaver.

The most durable of all furs is that of the otter, and taking this as 100, the durability of some common furs is as follows: Bear, 94; beaver, 90; seal, 80; mink, 70; skunk, 70; raccoon, 65; sable, 60; raccoon, dyed, 50; muskrat, 45; fox, 40; mink, dyed, 35; lynx, 25; fox, dyed, 20; squirrel, 20; hare, 5.

Not only are the furs used as imitations inferior in durability, but also in suppleness of the leather, denseness and silkiness of the under-fur, and fullness of the over-hair. Furthermore, many of the imitations are dyed, and as may be seen from the above list, this still reduces the durability.

Dr. Hausman finds that the hair of each species may be distinguished by its microscopic characters. When examined under the microscope a hair is seen to consist of four elements: 1, the medulla or pith, consisting of many superimposed cells or chambers, which may be either separate or continuous; 2, the cortex, surrounding the medulla, of a tough, horny texture and a clear appearance; 3, the pigment granules, to which the color of the hair is due, which are scattered in the substance of the cortex, and 4, the cuticle, or outermost integument of the hair, lying upon the cortex and composed of plate-like scales, imbricated somewhat like the shingles on a roof.

The characters which are most useful in distinguishing the hairs of different species are the form of the scales of the cuticle and the structure of the medulla. In order to bring out clearly the scales, the hair is washed in a mixture of alcohol and ether, half and half, then dipped in an alcoholic solution of methyl blue, one of the stains commonly used in microscopic work, and placed on a slide for examination. To bring clearly into view the medulla the hair is first washed in alcohol-ether, then mounted on a slide in oil of cedar.

There is a great difference in the scales of the cuticle of the hair among different animals; and in these cases in which the scales may be somewhat similar the medulla is markedly different. In the accompanying figures showing the hair of the cotton-tail rabbit, the fox and the beaver, which are taken from Dr. Hausman's paper, the differences in the scales, (shown at the left) and also in the medulla (at the right) are very conspicuous.

Those who wish to identify furs by means of the excellent figures of the hairs of various species of fur-bearing animals given by Dr. Hausman are referred to his original paper in Vol. 10, No. 1, of the Scientific Monthly.

A few hours spent with a sharp scythe will cut the weeds along many of the fences. It doesn't look like good business to work hard to keep weeds out of the crops and allow them to mature and reproduce in the fence corners or along the roadside.

See that the colts on the horses in the

Give the foals a are with their dam colts.

Be careful in fee the collar for a day owing to carelessness

Some horses' s spring rush. Salvage the parts and fit more snugly.

As the horse bec work the collars sc Using a sweat-pad from galling the s

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GENERAL OBSER in our mind since i the large markets o in gait is more ofte of our work horse. have a very good that is hardly pass to overlook a poor g to have a good body

Too much stres be brought to bear importance of breed horses to insure open, active trotti In buying horses British army, their paid particular att the gait of the hor they bought, often o ing other defects animal was well They are to be cor for this foresight, use of the large nu horses in our arm; the last war has t lessons that should able to our breede brought out the ty utility draft horse work is in itself mu ent from farm wo often makes necess work and at times feeding periods. A extreme speed is rec some little time requires that the l very active and we

CAUSES OF FAUL —Irregular or fault the horse may be from faulty conform the feet and legs, bad shoeing. Ma cases are the rest during the colt day to growing colts feet, and level at all time are due to the negl days, could and shou

INDICATIONS OF irregularities of the conformation of the or "rugged-heeled" that is "based-wid paddle when he trot between the fore-leg when moving faster the points of the b forge when trotting.

GAITS OF A WOR the gallop or at the walk are the only g slow four-beat gait a vigor and should b useful gait of the d which he can be v satisfaction. The t in which the diagon

THE HORSE.

See that the collars are clean before putting them on the horses in the morning.

Give the foals a chance to pick a few oats while they are with their dams. It will aid in developing better colts.

Be careful in feeding the idle mare when she is put in the collar for a day's work. Good horses have been lost owing to carelessness.

Some horses' shoulders have suffered during the spring rush. Salves or liniments should be applied to heal the parts and sweat pads used to make the collar fit more snugly.

As the horse becomes thin owing to continued heavy work the collars sometimes do not fit as they should. Using a sweat-pad will help prevent the ill-fitting collar from galling the shoulders.

In travelling through the country one notices very few foals in the pastures. Those in a position to know say that there are comparatively few colts in the country this year. It is not too late to breed those mares.

Some horses are subject to colic and the trouble is aggravated by eating wet clover. It is a good plan to have turpentine and raw linseed oil on hand to use in case of emergency. Two to three ounces oil of turpentine in a pint of oil usually brings relief. If there is excessive pain give one and a half ounces each of laudanum, sweet spirits of nitre and tincture of belladonna in a pint of water.

Irregularities of Gait.

By Dr. G. H. Conn.

GENERAL OBSERVATIONS.—There can be no doubt in our mind since inspecting several thousand horses in the large markets of the U. S., but that irregularity in gait is more often overlooked than any other feature of our work horse. A small percentage of draft horses have a very good gait, but there is a large percent that is hardly passable. Too many people are content to overlook a poor gaited stallion or mare, if they happen to have a good body conformation.

Too much stress cannot be brought to bear upon the importance of breeding draft horses to insure a good open, active trotting gait. In buying horses for the British army, their officers paid particular attention to the gait of the horses that they bought, often overlooking other defects if the animal was well gaited. They are to be commended for this foresight, for the use of the large number of horses in our army during the last war has taught us lessons that should be profitable to our breeders, as it brought out the type of the utility draft horse. Army work is in itself much different from farm work, as it often makes necessary fast work and at times irregular feeding periods. At times extreme speed is required for some little time and this requires that the horse be very active and well gaited.

CAUSES OF FAULTY GAIT.—Irregular or faulty gait in the horse may be caused from faulty conformation of the feet and legs, or from bad shoeing. Many such cases are the result of lack of attention to the feet during the colt days. Not enough attention is paid to growing colts feet. They should be kept well trimmed and level at all times. Most of the defects in gait that are due to the neglect of the feet during the colthood days, could and should be prevented.

INDICATIONS OF IRREGULAR GAIT.—Many of the irregularities of the gait can be foretold from the conformation of the animal legs; thus a "base-narrow" or "rigger-heeled" horse will often interfere. A horse that is "based-wide" or "pigeon-toed" will usually paddle when he trots. The one that is extremely wide between the fore-legs will often "roll", "wing" or "wind", wheel moving faster than a walk. One that stands with the points of the backs very close together, will often forge when trotting.

GAITS OF A WORK HORSE.—There are really but two gaits of the average work horse, and they are the trot and the walk. Of course they are sometimes used at the gallop or at the running gait, but the trot and the walk are the only gaits that concern us. The walk is a slow four-beat gait and should be executed with snap and vigor and should by breeders be considered the most useful gait of the draft horse, for it is the only one at which he can be worked with the greatest degree of satisfaction. The trot is a more rapid two-beat gait in which the diagonal front and hind legs act together.

It is possible by close attention to the conformation of the feet and legs of draft horses to breed animals with more style and speed at the walk, and with an easy open active trotting gait.

INTERFERING.—Is the sinking of the fetlock of the supporting leg with the foot of the striding leg, and occurs with about the same regularity in the front and hind legs.

FORGING.—Is the striking of the bottom of the front foot or the shoe of the front foot with the toe of the hind foot on the corresponding side. It occurs during trotting mainly.

Scalping.—Is the sinking of the hind foot at about the top of the hoof or at the junction of the skin with the hoof, on the ends of (or the heels) of the shoes of the corresponding front foot. This gait occurs only at the trot, and occurs just after the foot has left the ground. If it occurred later in the stride it would be "forging."

OVER-REACHING.—Is a defect of the trotting gait in which the hind foot is brought forward before the front one has left the ground, and it strikes the front foot in the region of the heel, but may strike the leg anywhere from the heel to the knee in some animals, but the usual location is the heel. Not a common fault in drafters but sometimes seen.

PADDLING.—Is an outward swinging of the leg in the direction of travel and occurs in "toe-narrow" or "pigeon-toed" horses. Very unsightly and common in heavy drafters.

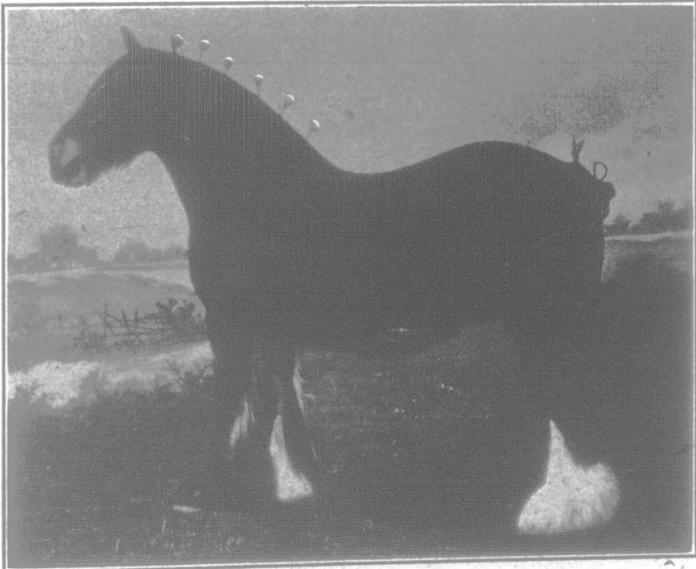
ROLLING.—Occurs in horses that are very wide between the front legs and consists in excessive side motion of the shoulders, and is more often noticed at the trot. Very unsightly and also quite common.

POUNDING.—Is an irregularity of the trotting gait that is quite often seen in drafters; it consists of a very short, snappy step, with extreme flexion of the knees, and a bringing down of the feet with considerable force.

WINGING.—Is very similar to "paddling" only more exaggerated due to the fact that it is usually associated with considerable action or flexion of the knees.

WINDING.—Is the placing of the striding leg around and in front of the supporting leg, much the same as rope walkers do when walking the rope. The tracks made by this gait are almost in a straight line.

Working the draft horse at a trot should be discouraged as much as possible, but there are some classes of horses that must be worked at a faster gait, and that is the reason that we feel that horses should be bred with the idea of improving both of the natural gaits, the walk and the trot. This can be accomplished by care-



Gleadhrope Seclusion. Champion mare at spring show of Shire Horse Society, Islington.

fully selecting animals with the desirable conformation of feet and legs and then properly caring for the colts feet during their growing period.

LIVE STOCK.

What are you doing to improve the live stock of your district?

Making the boy responsible for the calf herd will develop both initiative and character, two traits needed in the rising generation.

Thousand-dollar averages for pedigreed cattle are becoming so common that the layman no longer gasps when he reads of individual animals selling in the five figures. Some pure-bred hogs sell as high as cattle used to.

The Ontario Department of Agriculture reports an increase in quality of wool marketed co-operatively this year in Renfrew County. Local sales are reported in Victoria County at twenty to thirty cents for coarse wool, thirty to thirty-five for medium and forty-five for fine.

Live-Stock Improvements.

Throughout the greater portion of the North American Continent there is an agitation on foot working toward the improvement of the quality of stock in the country. A study of the market receipts and grades would clearly demonstrate to the thinking individual the need for such an movement. There are many stockmen who are losing money every year because of putting high-priced feed into low-quality animals, and the country is losing an opportunity of securing a place on the world's market because the live stock will not compete favorably with animals from other stock-producing countries. We understand that some localities across the line have, through the scrub-bull campaign, been rid of inferior sires and the movement is spreading rapidly. One has but to stop and think of the difference in price received for steers sired by a breedy, well-made, high-quality bull and those sired by an inferior individual, to become convinced that the better-bred, higher-quality herd sire is a good investment. There are some who have the idea that the agitation in Ontario at the present time was inaugurated by pure-bred breeders in order to increase their market for bulls. This is not the case; it is a movement set on foot by men who have the welfare of the live-stock industry at heart. These men are looking ahead, and through their efforts are endeavoring to raise the status of the commercial cattle in this country so that Canadian live stock can compete favorably with stock from any other part of the world. While Canada is consuming a large quantity of the meat produced within her borders, the time may come when she needs a bigger market. To be prepared to cater to the best trade when the market opens is much to be preferred to waiting until the market is assured before attempting to have stuff to place on it.

It is impossible to produce market-toppers from inferior dams and sires. A common female mated to an outstanding sire, has produced the desired quality of stock which wins on the best markets. The campaign to improve the quality of our animals will really benefit the small farmers and commercial stockmen more than it will the pure-bred breeders. The man with a small herd, or who is producing feeder steers, must come to realize that it is quality, conformation and individuality in the herd sire that counts, and this must be backed by a line of ancestors of high quality. To buy a pedigreed animal is not enough, there are plenty of pure-bred animals in the country which are not worthy of the name. A man must learn to pick out the quality of sire to mate with his females. Price should be a secondary consideration, provided the animal is right. A man may have a choice of a bull at \$100 or one at \$500; the former possibly showing lack of character and of inferior conformation, the latter filling the eye. That \$400 difference looks mighty big, and far too many are tempted by the small-priced but inferior bull.

Two stockmen living side by side have a herd of cows of similar breed, quality and conformation. The one lacks vision and buys the \$100 bull, while the neighbor buys the \$500 animal and weathers the ridicule of his neighbors. What do we find when the progeny of these sires are ready for market? Supposing that each leaves but twenty-five calves in the year, many of the progeny of the inferior bull lack constitution, are not thrifty, and even after receiving good attention only weigh about 700 pounds when rising two years old, while the progeny of the bull of better conformation with a long line of good ancestors show that deep, thick, sappy form right from the beginning and go on the market at baby beef at a year old, or else are of export calibre as two-year-olds. One has but to study the market quotations to figure out which man made the best investment. Stockmen have this spring paid \$25 apiece more for steers of good conformation and a breedy appearance than they would have had to pay for feeders of inferior breeding that did not show the capacity for converting grass into meat economically. Stockmen the country over complain about the difficulty of securing the right kind of feeders. It seems that instead of becoming easier, it is becoming harder all the time to buy animals that will give a good account of the feed consumed either in the pasture or in the stable. Therefore, it is about time that something was done to awaken the average man from his lethargy and to start him thinking about the loss he is suffering each year through failure to pay sufficient attention to the quality of sire used.

It is quite possible to get good stock from good females mated with a sire of equal quality, but it is rather expensive purchasing cows that will throw the right kind of calves. It is a much more economical plan to secure a high-class bull, even at a long figure, to mate with the herd of average cows, and the results will be approximately the same. The higher the quality of the females in the herd the better the bull that should be used. The pure-bred breeder, if he wishes to improve his herd, must show progress in the kind of sire used. There is no standing still in the live-stock business, the herd is either improving or retrograding. While our pure-bred herds are superior in quality to what they were several decades ago, our commercial cattle are not as good. There has been too much crossing and re-crossing of breeds and not enough study made of breeding problems.

It must be granted that there are grades which appear better than pure-breds, but the best grades do not compare with the best pure-breds. It is folly to make comparison between an outstanding grade and a poor registered animal. The principle of using a sire whose ancestry is obscure is wrong. A study of the laws of heredity shows that the defects as well as the good points of an animal will crop out in the third and fourth generation. Thus one should be careful, even when breeding commercial cattle, about the ancestry of the

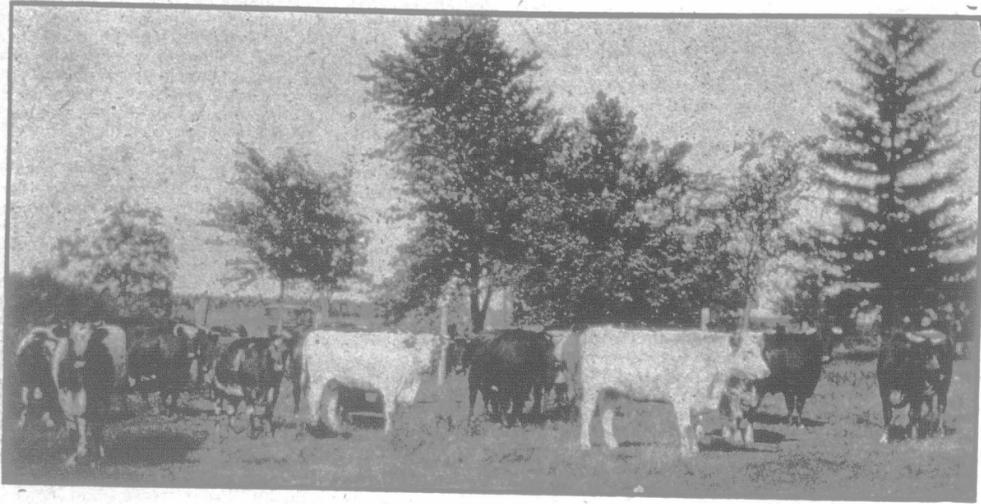
sires used. If there is a weakling two or three generations back there is danger of that defect cropping out in the progeny.

Eversion of the Uterus in Cows.

Eversion or prolapse of the uterus consists in its partial or complete turning inside out. It is due to a relaxation of the uterine ligaments which, under normal conditions prevent displacement of the organ.

The condition may be noticed when eversion is only partial, or not until it becomes complete. It does not occur suddenly, but in some cases complete eversion

progress of eversion, replacement is a comparatively easy matter, and the partially everted organ should be immediately forced back into position, even though the foetal membranes (the after-birth) be adherent, as these can be removed later on, if not expelled, or can be removed by hand after re-placement of the organ, and then means adopted to prevent re-eversion. If eversion is complete, and the after-birth adherent, it should be carefully removed, without detaching any of the cotyledons. If the cow be recumbent, as is usually the case, a rubber sheet or other material should be placed under the mass, and then all foreign matter removed, the organ then thoroughly washed with an antiseptic as a 5 per cent. solution of one of the coal tar antiseptics or carbolic acid. It is good practice to add to this some



Shade is Quite Acceptable to Cattle on Pasture.

occurs in a short time after the first symptoms are noticeable. It can take place only when the neck of the womb, or rather the passage through the neck (called the os uteri) is dilated hence is seen only shortly after parturition.

Eversion may be simple or complicated. It is said to be simple when the organ is intact, uninjured, and not accompanied by the extrusion or displacement of any other organ, and complicated when it is wounded torn or punctured, or when it is accompanied by hernia or protrusion of other viscera.

SYMPTOMS.—In the early stages the only noticeable symptoms are uneasiness and more or less excessive straining. If, at this stage, the hand be inserted into the vagina, a portion of the organ will be felt protruding through the os. This soon becomes apparent in the form of a fleshy tumor between the lips of the vagina. Powerful and hurried expulsive efforts ensue. More and more of the organ becomes visible, and aided by its own weight is carried downwards and eversion becomes complete. If the animal continues to stand the everted organ has the appearance of an enormous pear-shaped tumor, hanging between the posterior limbs and reaching to the hocks or below, the wider and rounder portions being inferior, the narrow portion (which might now be called the neck) being at the vulva. In some cases where shortly after birth the after-birth is being expelled in bulk, it is mistaken for the uterus. An examination will easily differentiate, especially in the cow, as the exposed surface of an everted uterus presents many lumps of different sizes connected to the mucous membrane by constricted necks. If the after-birth has been expelled before eversion takes place, these lumps, which are called cotyledons, will present a roughened or honey-combed appearance; if the after-birth be still adherent the surfaces will be smooth. If the protruding mass be simply after-birth, there will be an absence of the lumps but the exposed surface will present many rough, honey-combed like surfaces, indicating the portions of the membranes that have been attached to the cotyledons.

In most cases the weight of the organ becomes so great, even before eversion becomes complete, that the cow lies down, and the everted organ becomes more or less covered with filth, according to the conditions of the floor or ground upon which it rests.

The longer the period which has elapsed after the eversion occurred, the larger the mass becomes. This increase in size is due to the expulsive efforts of the cow (which usually continue) as well as to the increase in weight of the organ in consequence of the congestion and infiltration which takes place in its textures. The organ is constricted, almost strangulated at its upper part, the circulation is maintained with difficulty, hence the blood vessels become charged. The walls of the organ lose their elasticity, become thickened and dense, and darkened in color.

At first there is no perceptible fever, and the patient between the intervals of straining, may be solicitous about her young, and even eat. This state seldom lasts long; indications of fever are soon apparent, the pulse becomes frequent, temperature increases and she soon becomes indifferent to surroundings.

TREATMENT.—Treatment must, of course, be directed to removing all foreign matter, washing with an antiseptic lotion, replacing the organ and adopting means to avoid re-eversion. If the accident be detected during the

powdered alum, as its astringent action tends to lessen the bulk of the viscus. After the organ has been thoroughly cleansed, it must be carefully returned without puncturing it, tearing off cotyledons, etc. It is almost impossible to do this with the animal lying down, unless the head be considerably lower than her hind parts. If she can be got on her feet an assistant at each side can suspend the organ in the sheet that has been placed under it, and the operator, commencing at vulva gradually and carefully force the organ back into the cavity, when about half has been forced back, the rest will not cause much trouble. If the patient will not rise a neckyoke, whiffletree, or something of that nature, should be firmly strapped, one end to each hock, a strong rope tied to the centre, and run through a pulley attached to a beam, or over the beam, and the hind part of the cow raised and suspended until the hips are off the floor, and the patient resting upon her withers. This practically renders her incapable of expulsive efforts or straining, and it is a comparatively easy matter to return the uterus. After it has been returned, while the cow is standing or suspended, the operator should, with his hand, manipulate it into as nearly its normal position as possible. Then put 2 or 3 strong sutures through the lips of the vulva. Get her on her feet (if she be not already standing) and arrange a truss which presses upon the vulva. This double precaution to prevent re-eversion is wise, as it is possible that the stitches might be forced through



A Flock of Southdowns.

the tissues if not aided by the truss, and the truss may become displaced, and reversion take place before re-adjustment, if not aided by stitches. The cow should then be placed in a narrow stall with a false bottom one foot higher behind than in front, so that whether standing or lying she is higher behind than in front. If straining be excessive it is well to give her 2 oz. of laudanum in a pint of water as a drench. This may be repeated in a few hours, if necessary. She should be kept in this stall until straining ceases and the danger of re-eversion ceases, usually 2 to 3 days, when the truss and stitches should be removed. It is well to keep her in the stall for a day or two after all symptoms of irritation or straining have ceased.

W.H.P.

Handle the Stock Carefully.

At this time of year there is frequently a considerable loss of stock, especially of hogs, in transit from the shipping points to the market. Being crowded in a car and subjected to the strong rays of the sun, overcomes some animals and they become trampled under foot of the more robust. The farmer and drover can do a good deal to lessen this loss by properly handling the hogs or cattle previous to shipment, not allowing them to remain in an open yard at mid-day, and not crowding in the car. When the weather is cool the stock will stand crowding a good deal more than in hot, sultry weather. The animal should not be excited and if there is considerable shipping from a certain point and the stock must remain in the yard for some time, a portion of the yard should be roofed. Providing a hog wallow will also help to keep the porcine individuals cool. Shipping animals of different sizes in the one deck is not advisable, and it will generally pay to go to the extra expense of putting a partition across the car when a mixed load is to be shipped. The animals which die are lost to consumption as the carcass is usually thrown into the fertilizer tank. Indirectly, it is the producer who suffers the loss.

There is considerable loss the year around through animals becoming bruised or injured. This trouble very often starts right at the farm when the hogs are being loaded on the wagon or sleigh. A club or pitch fork is far too frequently brought into use. This bruises the meat and causes considerable loss, as a portion of the meat around the bruise must be cut away. The hogs, and cattle too, are very often subjected to rough usage when driven into the yards, and from the yards into the cars. The employees on the stock market and in the abattoirs are none too lenient, and so we find abuse is practiced all along the route from pen to slaughter house. In some abattoirs an employee will be discharged more quickly for abusing animals than for many other misdemeanors, and it would be a good thing if shipper and drover were more careful about the usage given the stock.

Rearing a Spring Calf.

On the average farm the spring-born calf does not get as good an opportunity for development as does the calf born during the fall and early winter. There are several reasons for this, many of which are within the control of the herdsman. The chief cause is lack of time to give the youngsters the needed attention during the spring and summer months. Then, too, there is the variation of temperature, the trouble with flies, and when the calf is pail-fed, the difficulty of keeping utensils and mangers in a clean, sanitary condition. It is easier to raise the fall-born calf, and it is usually large enough to go on grass the following spring, whereas the spring born calf should not leave the stable until the following spring. A good many calves develop into scrubs owing to lack of proper attention and nutritious feed during their early days. When the calf is eating well then we can see no harm in it running in a shaded paddock where it may pick nutritious grass at will, but to turn a calf into a shadeless field, along with older stock, no matter how good the pasture, does not give that calf anything like a chance. Then, too, the flies are usually worse in the open than they are in a partially darkened stall. We do not mean for a minute that the calf should be housed in a dark stable—they need the sunlight—but, during fly season, thin, dark material hung over the windows will lessen the number of flies in the stable and thus give the calf greater comfort. If it could be arranged, it would be a nice thing to have a shaded paddock adjoining the calf pen so that the

but it is a good plan to have three or four weeks making up for the loss of the cereal or other crops. A double revenue from the land to-day, it amounts to a value of many, to whom a quite a large herd of calves on each cow is a good thing. There are baby calves there are baby calves to twelve months. It is possible even more so than the cream, and for a good reason. There is a good deal of cream in the milk if there was a run of the marketable stuff and cream would be who is capable of either give them too hot or too cold digestion and for the attractive individual must study the calf enough to cut off the of indigestion are from twelve to fifty while others of the any more than nine comes reluctant to the allowance, as for always be keen. digestive system is pearance of scourment, and is resp. It is much more of the cow-reared calf the quantity of the and it is a very good a few days and the milk again. Putt milk is beneficial, combatting this t raw eggs. The m calves, keeps the u temperature is se his young herd. much easier and n after the disease h When the calf to add something removed. This m or flax seed. Oats, and are bone and included in the rat percentage of fat t do not balance the milk. The commo given dry, have gi home-grown grains a very good calf m by many stockmen oats and wheat, p hundred pounds of flax, makes a splen ground oats are ex also be fed to adva a calf will learn to of age some calves concentrates daily, an It is very importa each feeding. Good for the growing sto calf can be consid both succulent a ribs and develop they are raised on n Cattle feeders there is greater sa attendant in stable animal a slight se



but it is a good plan to feed whole milk for the first three or four weeks and then gradually make the change, making up for the loss of the fat in the milk by some of the cereal or other concentrates. This permits of a double revenue from the cow. At the price of cream to-day, it amounts to considerable in a year, and then there is the value of the calf to add to this. There are many, to whom hand-milking does not appeal, who run quite a large herd of cows and put from two to three calves on each cow. If the cows are good milkers and the calves are induced to eat concentrates at an early age there are baby heaves ready for market at from ten to twelve months. When labor is taken into consideration, it is possible that this method is as profitable, or even more so than milking the herd by hand, selling the cream, and feeding the skim-milk to the calves. There is a good demand for prime baby beef. However, if there was a run on this line of farming, the price of the marketable stuff would seek a lower level and milk and cream would increase in price. It is not everyone who is capable of rearing calves on skim-milk. They either give them too much or too little, feed the milk too hot or too cold, and as a result injure the calf's digestion and for the first six or eight months it is not an attractive individual. A man must be observant; he must study the calf's appetite and condition, and know enough to cut off the milk supply when the first symptoms of indigestion are apparent. Some calves may take from twelve to fifteen pounds of skim-milk at a feed, while others of the same size and breed may not stand any more than nine or ten pounds. When the calf becomes reluctant to empty the pail, it is time to decrease the allowance, as for greatest success the appetite must always be keen. One of the first symptoms that the digestive system is not working as it should, is the appearance of scours. This is rather a dangerous ailment, and is responsible for many unthrifty calves. It is much more common with the pail-fed than with the cow-reared calf. As soon as the symptoms appear, the quantity of the milk given should be greatly reduced, and it is a very good plan to switch on to new milk for a few days and then gradually come back to the skim-milk again. Putting a little clear lime-water in the milk is beneficial, and we have very good success in combatting this trouble by feeding the calves a few raw eggs. The man who studies the appetite of his calves, keeps the utensils clean and the milk at the right temperature is seldom troubled with this disease in his young herd. Preventing the trouble will be found much easier and more economical than effecting a cure after the disease has become established.

When the calf is put on skim-milk it is necessary to add something to the feed to make up for the fat removed. This may be done by feeding a little cornmeal or flax seed. Oats, bran and oil cake are nourishing feeds and are bone and muscle developers, and should be included in the ration, but while they contain a certain percentage of fat they are also rich in protein and thus do not balance the ration when given along with skim-milk. The commercial calf meals fed in the milk, or given dry, have given results, and mixing some of the home-grown grains with purchased concentrates makes a very good calf meal which has been fed with success by many stockmen. A hundred pounds each of corn, oats and wheat, ground together and mixed with a hundred pounds of oil cake and fifty pounds of ground flax, makes a splendid feed for the young stock. Finely-ground oats are excellent feed in themselves; bran may also be fed to advantage. It is surprising how quickly a calf will learn to pick a bit of feed, and at six weeks of age some calves will eat about half a pound of concentrates daily, and at three months about two pounds. It is very important that the mangers be cleaned at each feeding. Good legume hay makes ideal roughage for the growing stock, and the conformation of the young calf can be considerably improved by judicious use of both succulent and dry roughage. It spreads their ribs and develops their capacity much more than if they are raised on milk and grain alone.

Cattle feeders prefer an animal without horns, as there is greater safety both to the animals and the attendant in stable and pasture. De-horning gives the animal a slight setback. However, the horns can be

prevented from growing with little or no inconvenience to the calf if a little caustic potash is rubbed on the nubblins just as they are beginning to show. It will save de-horning later on, and really it gives the mature animal a better appearance than does de-horning. When steers are raised the male calves should be castrated when a few weeks old as they then suffer little setback.

The paddocks and stalls should be kept clean at all times. It is not a good plan to allow too great a depth of manure in the stall, or to allow it to become wet. There is another thing which many breeders neglect, and that is a supply of fresh water for the calves. It is surprising how often the four or five-weeks-old calf will go to the pail for a sup of water if such is available, and then a little salt fed at regular intervals is good for stock. The size, quality and general thrift of an animal depends to a great extent on the care and attention it receives in its early days. To neglect the calves puts a handicap on the development of the thrifty mature animal.



J. J. Elliott, the Owner of Millhills Comet.

An Enthusiastic Crowd Inspects Millhills Comet.

An event of unusual interest took place at the farm of J. J. Elliott, Guelph, on Wednesday June 9, when upwards of six hundred farmers and city people gathered to inspect Millhills Comet, the \$34,000 Shorthorn bull and to do honor to his owner who showed faith in the live stock industry of Canada by paying this record price for a herd sire and taking the risk of bringing him across the Atlantic. It marked a new epoch in the live-stock industry of Canada, especially in the Shorthorn fraternity. After seeing this thirteen-months-old calf, we do not wonder at there being a keen bidding contest at the Millhills sale, and Canadian Shorthorn breeders are rejoicing that it was a Colonial who was able to outbid the Argentine and British breeders and secure this richly-bred, ideal type of animal to use on Canadian herds. It is the first time that a Canadian Shorthorn

breeder has felt justified in paying such a price for a herd sire; in fact, the price has not been equalled in the Old Land. He is a roan calf of very pleasing appearance, and with wonderful character shown throughout. His top line is straight and his underline runs parallel with it. Seldom does one see a calf with the spread and depth of rib and the let-down at both flanks, as is Millhills Comet. There is indication of great constitution, splendid capacity and outstanding beefing qualities. If he stamps his individuality upon his offspring, the good which his blood will do in the Shorthorn herds of Canada will be inestimable. Along with this calf, Mr. Elliott imported a herd of choice breeding females of excellent quality and conformation, rich in the blood of famous Old Country herds. These females, mated with the imported herd sire, should leave progeny which will be in great demand by breeders from Coast to Coast. Mr. Elliott was assisted in the selection of these animals by his herdsman, Alex. Bruce.

The celebration on Wednesday afternoon was arranged for by the Guelph Chamber of Commerce, the Guelph Fat Stock Club, and the Guelph U. F. O. Club. After the herd had been inspected, the large crowd gathered in the orchard and listened with interest to addresses from several prominent live-stock men. C. L. Nelles, President of the Guelph Fat Stock Club, presided over the meeting, and after a few words of an introductory nature called on Dr. Tolmie, Minister of Agriculture for Canada. Dr. Tolmie congratulated Mr. Elliott on the evidence he had shown of his confidence in the future of the live stock industry of Canada, and contended that the paying of this record price for an animal of record quality had done more to advertise the Canadian live stock industry than any previous event. The Minister felt confident that the progeny of this bull going to herds throughout Canada would mean a good deal to the industry. Reference was made to the commercial cattle trade, and Dr. Tolmie regretted that after years of breeding quite a percentage of cattle going on to our markets were unfit for export trade. If these animals had been conditioned they would have weighed a good deal more and have brought a higher price on the market. It was believed that improving the quality of the stock would immensely increase the revenue to agriculture. It was by using outstanding sires that the quality of commercial cattle would eventually be improved. The stockmen were assured by Dr. Tolmie that he would do his utmost to secure the best markets available and to get a removal of the embargo against cattle going to England, as it has been plainly demonstrated that Canadian stock is freer from such troubles as foot and mouth disease and pleuropneumonia than stock in any other part of the world. The Ontario Veterinary College was eulogized for the work it is doing in training men to help control the animal diseases in the country. The Ontario Agricultural College and the Guelph Fat Stock Club were referred to as valuable institutions for the building up of the live stock industry. With its vast resources, Canada is no place for the pessimist, said Dr. Tolmie.

Honorable Hugh Guthrie, member for South Wellington, was the next speaker and made reference to the place which Wellington County occupied as a producer of high-class live stock, and thought it very fitting that it should be a Wellington County breeder who would bring the highest priced Shorthorn to the Dominion. The Fat Stock Club of Guelph was given credit for stimulating an interest in better stock in the county. At this stage in the program the speaker presented Mr. Elliott with a gold watch as a token of the appreciation of those present in the gathering for the interest he had taken in the improvement of the breeding stock of the County.

Dr. Grisdale, in a brief address, referred to what the pioneer breeders of Canada had done in building up an industry second to none in the country. Breeders of both pure-bred and commercial cattle were advised to pay more attention to the quality of breeding stock so that our cattle might take first place on any market. H. S. Arkell, Live Stock Commissioner, made reference to the fact that Millhills Comet sold for the highest price ever paid for a Shorthorn in Great Britain, and that Mr. Duthie—that famous, world-wide known breeder of Shorthorns—had not received nor yet paid a price equal to this. The best breeding stock of Great Britain has been eagerly sought after by Argentine breeders, but in this case one of the best was secured by a Canadian.

The purchase of this bull by Mr. Elliott is of particular interest to Shorthorn breeders. Millhills Comet was calved on April 20, 1919, and is sired by Cupbearer of Collynie. He was bred by Mrs. Stewart, of Millhills. The following gives an idea of his breeding.

Dam	Sire	Breeder
Clipper Princess	Aldbros Scottish Prince	T. B. Earle
Clipper Hope	Winning Hope	R. Bruce
Christabel	Crystal Star	A. M. Gordon
Christina	Touchstone	A. Cruickshank
Zoe	Dr. A. Duff	J. Williamson
Mercy	Lord Mayor	A. Longmore
Charity 2nd	Scotland's Pride	A. Cruickshank
Chastity	Lord Raglan	M. S. Stewart
Charlotte	The Baron	R. Chaloner
Clipper	Billy	Captain Barclay

Rain has been badly needed for the development of the hay crop in Ontario. The crop will be short in any event and if rain is not forthcoming in abundance, the growth of clovers and grasses will be seriously curtailed.



Millhills Comet, the \$34,000 Shorthorn Bull.

This 13-months calf is being inspected by a large crowd of live stock enthusiasts.

THE FARM.

Harvesting Sweet Clover.

Sweet clover has come into favor during the past few years and the plant which was considered by many to be a noxious weed has proven to be a valuable fodder plant. The middle of June finds a good many in the midst of harvesting the crop for hay. If it is not cut at the proper time there is tendency for the stems to become woody and thus a poor quality hay is made. It should be cut about the time the first blossoms are ready to appear. Two crops can usually be secured, provided, however, that the cutting bar is raised sufficiently high to leave fresh growth on the stubble. Many have completely destroyed the plants through leaving no lower branches to start the new growth. Owing to cutting early, sweet clover is rather hard to cure. Furthermore, there is always the danger of losing a portion of the leaves, which are really the best part of the hay. Tedding and raking before the dew has completely gone, or in the evening when the dew is settling, is recommended. As a rule, the crop must be cured in the coil.

When the sweet clover is grown for seed production, the first crop can be allowed to go to maturity, although there will be a greater revenue from the field if the first crop is taken off for hay and the second crop allowed to mature for seed. There is always the danger, however, that the crop may be cut too low and but a thin stand come on for seed. When harvesting it for seed, cutting should be done when three-quarters of the seed pods become dark. It is cut and handled very much like the grain crop but care must be taken when the straw is very dry, else there will be a loss of seed.

Sweet clover is used extensively for pasture and if some of the plants are allowed to seed there is more or less of a permanent pasture obtained. Cattle do well on it. Our experience at Weldwood has been that young stuff fattens up quite readily and cows maintain a good flow of milk and keep in flesh better on sweet clover pasture than on red clover and the ordinary grasses. It also has value as a green manure. It adds nitrogen and humus to the soil and has been found valuable in the building up of both sand and clay soils. It does not quite take the place of alfalfa as a fodder, but it can be grown in districts where alfalfa does not seem to stand up under the climatic conditions. If the plant is prevented from going to seed there should not be much difficulty in keeping it from spreading. We have found that cutting it close to the ground kills the plant.

Corn Cultivation.

Already many fields of corn have received the first stroke of the cultivator, and some of them have been gone over two or three times. Corn is a hot-weather plant and seems to thrive best when the mercury is high even though there is little rainfall. It is important that the cultivator be kept going at regular intervals. One week is not too often. The crop depends a good deal on the amount and kind of cultivation given. It is advisable to work the soil deep at first, and close to the plant, then as the season advances gradually lessen the depth of cultivation. To go shallow one time and deep the next is not a good practice; in fact, we have seen crops given a severe setback owing to the fact that the cultivator, going deeper than the time previous cuts off many of the roots, thus lessening the number of feeders for the corn plant. The cultivator points should be kept reasonably sharp and set so that they will cut the weeds and grass properly. On most farms there is little or no time for hoeing the corn. However, the field can be kept reasonably clean with the horse cultivator.

After the corn gets up a few feet there may be signs of smut developing. If there is much of this in the field it causes a decided loss. The only practicable method of eliminating this disease from the field is to cut off the infected parts and burn them. This can be done when going through the field with the cultivator. Care should be taken not to leave the diseased stalks lying on the field, or where they will reach the manure to be carried to the field again. It is important that these smut masses be cut off and destroyed before they have broken open. Once open the spores are spread and may infect the crop the following year.

CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

The Spirit of Co-operation.

EDITOR "THE FARMER'S ADVOCATE":

Recently, a passing shower was the cause of half a dozen men gathering in a barn, the writer being one of the group. We, being normal human beings, discussed other people's affairs and settled a few of the more knotty problems of state. Finally, the conversation turned to that ever fruitful subject for conversation—the present farm situation—a full discussion of which includes the shortage of help, the long hours, the high cost of production, and the comparative inadequacy of financial returns. The writer expressed it as his opinion that the present situation which farmers complain of will never be righted unless they take the problem in hand themselves, and by co-operative methods and united effort secure that which they consider to be their

by right. One farmer replied,—who by the way, works his hundred acres alone,—that farmers could never make a success of co-operation, and that so far as he was concerned he could make a living and get along somehow, and he didn't need to care for anyone else. There was a general chorus of "hear, hears!" and "amens!"

I mention the above incident because it is an altogether too prevalent attitude on the part of Ontario farmers toward co-operation. This attitude is directly opposite to the true spirit of co-operation, which is a willingness to pool certain of one's interests along with similar interests of others, and to be willing to abide by the consequences. The aim of co-operation is that the financial condition of the co-operators may be improved. The motive then is chiefly self-interest, but looking out for ourselves is one of the first of all laws, and in doing so we should not interfere with the rights of others.

That co-operation is not more widespread in Ontario to-day than it is, is due for one reason to a lack of faith in its power and possibilities. There are too many farmers like the one mentioned above, who think that because of the nature of the farmers' business, and the independent lives they lead, there is little possibility of co-operation being successful. Where there is no faith there is no enthusiasm, and an enterprise not backed by enthusiasm hasn't the possibility of success. This attitude can only be overcome by education and example. Those who do believe in the efficacy of co-operation should use the means at their disposal to cause others to believe likewise. These consist of the press, the public platform, and private conversation. Also, believers, by making an actual success of co-operation, will do more than anything else to convince others of its efficacy; and these others, once believing, will also participate.

Another check on co-operation is that short-sighted selfishness, too often displayed by farmers. There are those who will desert a co-operative association the minute they can make a few extra dollars elsewhere. By so doing they gain a little at the time, but will probably lose what they gain, and much more besides, ultimately. Such farmers as these not only hurt themselves, but are detrimental to the general farming interest. When a co-operative association is being combated by middlemen, whose object is to break it up, then is the time to stick closest together; numbers are on the co-operators' side and they are sure to win out in the long run.

Co-operation in the form of the U. F. O. is off to a good start in Ontario, but as yet we have only touched on the fringe of the possibilities in this line. As the activities of the U. F. O. increase, and as those greater enterprises now under private control and which are chiefly responsible for diverting so much money from the farmer's pocket, are brought under the control of farmers, then the benefits of co-operation will be more apparent. On those who are the young people on Ontario farms and who will be the farmers of to-morrow will devolve the opportunity and responsibility of carrying on with co-operative work, making it the success it can and ought to be. We who are the coming farmers would do well to get a thorough understanding of the workings and the possibilities of co-operation, so that we may have that knowledge, that faith and enthusiasm, which are necessary to make a success of anything.

Oxford County.

OXFORDITE.

THE DAIRY.

The National Sale at St. Paul.

The National Sale of Holsteins which followed the annual meeting of the American Holstein-Friesian Association at St. Paul, Minnesota, on June 2nd, was in many respects the most successful sale of the breed ever held in America. In all, there were 258 head catalogued for the sale, 235 of which came forward. These consisted of entries drawn from practically every State in the Union, as well as the Provinces of Ontario and British Columbia in Canada. As announced in last week's issue, the 235 head sold for just a little over three-quarters of a million dollars, making an average throughout of \$2,075 per head, a figure which is far above any previous averages for the breed on this continent, at least. Contrary to former national sales, there were this year no one hundred thousand dollar tops, but the two-months' son of the great long distance producer, Tilly Alcartra, and went, as has been previously announced, to A. C. Hardy of Avondale Farm, Brockville, Ont., and W. L. Shaw, Roycroft Farms, Newmarket, Ont., at \$50,000. At two months of age he is as yet too young to be at all accurately summed up as regards individuality but it is certain that he has plenty of length, and, if we can go at all by pedigree, with these two great world's record cows, Tilly Alcartra and May Echo Sylvia as his first two dams, there should be but few question his right as the most outstanding bred calf of the breed. King Korndyke Pontiac Acme, another calf, however, consigned by the Morris Corporation, went at fast bidding to \$41,000, and at one time almost looked as if he was going to equal the price paid for his pen mate, sold the previous day. This calf was an eight months' youngster sired by a 36-81-lb. bred grandson of King of the Pontiacs, while on the dam's side, he was from a 26-18-lb. two-year-old, who had 24,308 lbs. of milk and 1,034 lbs. of butter in 365 days. As this calf was older one could be a little more certain as to how he was developing, but as no one could say he had any great amount of individuality, it must have been the yearly record of his two-year-old dam, which was instrumental in bringing the price at which he was sold. Here we might add

that throughout the three days it was almost confusing to sit in the sale pavilion and try and figure out, with any accuracy whatever, as to why and when some one animal should be selling well up in the thousands.

A summary of the sales shows three bulls above \$16,000, 7 females above \$10,000, and one female at \$3,000. The bulls all had a combination of both long and short-time records, but the high-priced females varied from high to low, to almost the extreme. It was certain, however, that individuality brought more dollars in the way of consideration than any other one feature, if they had a combination of individuality and long distance backing, it is also just as certain that it doubled and, in many cases, trebled their value. For instance, fifteen 1,000-lb. butter cows, or daughters of 1,000-lb. butter cows, made an average of \$8,113, while 41 cows with records from 30 to 38 lbs. made an average only of \$3,760. As would be expected, there were among the latter many cases where there was plenty of individuality, but only twice did they run very much above \$5,000. Speaking of the 7-day record cows, it was also noticeable that of the 41 listed in the catalogue, 22 had less than 600 lbs. of milk in seven days. In fact, two of the highest record cows, Changeling Queen, a 38.9-lb. four-year-old, and Ruby Karen Mercedes, a 35-lb. cow, both had less than 570 lbs. of milk.

Canada was represented by 11 head only, six of which were consigned by Avondale Farms, Brockville, Ont., while the other five came from the herds of J. M. Steves, Colony farm, and the Dominion Government Farms at Agassiz, all of British Columbia. In contrast to the sale held in connection with the annual meeting last year in Philadelphia, the averages made by Canadian breeders fell somewhat below the general average of the sale. Mr. Hardy kept his average up to \$3,413 for the six head, while the British Columbia stuff made an average of \$2,280. We would not like to say there was any discrimination shown by the management with regard to the Canadian cattle, but there were plenty of the eastern states' breeders emphatic in their statements that the middle west breeders had jockeyed more or less for position all the way through the sale. In all fairness, however, to these breeders from Wisconsin, Minnesota and the Dakotas, we might say that while they are out to boost their semi-official yearly records, they came across in grand style and paid "real money" for long distance stuff if it had any individuality whatever. Wisconsin breeders alone made purchases to the value of \$250,000, or, in other words, paid in a third of the total receipts of the sale. The following is a list of the Canadian cattle together with the prices for which they sold and below these again are a few of the higher-priced cattle which passed through the ring on one or the other of the three days' selling:

Canadian Entries.

Consigned by A. C. Hardy:	
King Waldorf Sylvia, Brentwood Farms, Penn.	\$ 5,250
Winterthur Ormston, Otfest & Busharl, Ind.	7,200
Queen Fulton Sylvia, Mrs. M. E. Penrose, Col.	2,150
C. E. S. P. Tensen, John Hallet, Ill.	1,200
Echo Sylvia Snowball, Carnation Stock Farms, Wash.	2,550
Lady Sylvia Tensen, Carnation Stock Farms.	1,700
Consigned by J. M. Steves:	
S. O. C. B. Methilde Canary, A. P. Thom, Conn.	450
S. C. J. P. Nora, Carnation Stock Farms.	1,150
Consigned by Colony Farm:	
C. Netherland Segis Newman, A. E. Smith, Wash.	1,050
C. Segis McKinley, A. E. Smith.	2,000
Consigned by Dominion Exp. Farm:	
Agassiz May Echo Segis, Carnation Stock Farms.	950

Other Sales of Note.

MALES.	
Alcartra King Sylvia, A. C. Hardy & W. L. Shaw, Canada	50,000
King Korndyke Pontiac Acme, Mrs. A. M. Baldwin, California	41,000
King Pietertje Ormsby Pieve, Wm. Miller, Wis.	15,000
Dutchland Quality, Brentwood Farms.	7,750
FEMALES.	
Moxee Johanna K. Pieve, Long Lake Stock Farm, Minn.	10,000
Ruby Pietertje Forest Hill 2nd, Harvest Farms, Wisconsin	10,500
Western Asclon, Rancocas Stock Farm, N. J.	5,500
Chloe Pietertje Ormsby, Hugo Schroeder, Minn.	10,100
Aaggie Wayne Peep 2nd, Carnation Stock Farms	7,900
Colantha May Ormsby, John Pulls, Wis.	7,000
Colantha May Ormsby 2nd, Hollyhock Farms, Wis.	7,600
Juanita Segis Pontiac, E. M. Murphy, Wis.	5,000
Veeman Grace Pieve, E. M. Murphy.	6,500
Ruby Caren Mercedes, Mankato Holstein Co., Minn.	9,100
Ormsby Korndyke P. Mooie, Schroeder & Boeckmann, Minn.	10,500
B. K. P. Dawn, Gustave Papst, Wis.	5,300
Maple Side Adelaide Walker, Rancocas Farms	5,000
Meadow Home O. Wayne Belle, Carnation Stock Farms	10,000
Papst Korndyke Cornflower, Hollyhock Farms.	30,000
Hazel Pontiac, E. M. Murphy	5,400
Daisy Colantha Girl 3rd, W. E. Tirch, Wis.	9,000
Hollywood Lilith Mercena, Carnation Stock Farms	6,000
Countess Sunnyside De Kol, Belle Farms, Pa.	5,000

In addition to the above bulls, four others sold above \$5,000. It will be interesting to Canadian breeders to know that with a half dozen exceptions, the bids never ran below \$50, and the smallest bid made throughout the sale was \$25.

THE first a week, made that, in all in the manufacture in order that this may not suffer brought about by for milk. For the adjustments will in the methods p forms in manufac some pioneer fac and which Gover encouraging, shoul upon a competitiv all concerned. K will merely have must meet its ju the introduction manufacture we c mediate improvem circumstances are co-operative owne factories by the p for milk accordi utilization of by-pr product by Govern ment standards; selling on the larg expensive system. entirely new. All factories or are in to bring about th over the whole of is already enjoyed have made a move

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Finding a Market for Our Milk.

II. THE CHEESE MARKET.

THE first article of this series, which appeared last week, made reference to certain adjustments that, in all probability, will be brought about in the manufacture and sale of cheese in Eastern Canada in order that this old and well established industry may not suffer unduly from the keener competition brought about by the development of other markets for milk. For the most part we cannot see that these adjustments will mean any serious or radical changes in the methods pursued. On the contrary, those reforms in manufacture or in method of selling, which some pioneer factories have already put into effect and which Government agencies have for years been encouraging, should be sufficient to place cheese making upon a competitive level that will be fair and just to all concerned. Keener competition from other markets will merely have hastened the day when inefficiency must meet its just reward. Whether time will force the introduction of speedier and better processes of manufacture we cannot undertake to say, but the immediate improvements that seem to be demanded by circumstances are five in number. They are: (1) The co-operative ownership and management of individual factories by the patrons themselves; (2) the payment for milk according to quality; (3) the more efficient utilization of by-products; (4) the grading of the finished product by Government agents or according to Government standards; (5) the substitution of co-operative selling on the larger wholesale markets for the present expensive system. None of these various steps are entirely new. All of them are either realities with some factories or are in contemplation. What is needed is to bring about their general adoption and to secure over the whole of Eastern Canada that success which is already enjoyed by factories here and there which have made a move forward in one or more particulars.

THE ADVANTAGES OF CO-OPERATION.

Perhaps the fundamental need is the further development of co-operative factories. It has already been said that cheese making is more or less of a community enterprise and as such is a matter in which each patron is vitally interested. No very large expenditures of capital are necessary, nor does it seem practicable to manufacture cheese from milk that is drawn from any considerable area, for the reason that the whey is considered a very valuable by-product for hog feeding at the factory and must be returned to the patron. Even though co-operative hog feeding at the factory is undertaken, there is a limit to the size of this business. At the same time there are many evidences throughout the country of the need for more capital in individual factories. Private owners seldom, if ever, have the best equipped factories and those who make on commission do not usually find it profitable to make any more improvements than are imperative. They are often men of limited means and where the annual make is small and the good will of patrons uncertain, further expenditure of capital would be venture-some. In any event the patron is really the one to whom the factory means the most in the course of a year, and even a limited observation will disclose the fact that those factories which are already owned co-operatively are best equipped and most securely entrenched in the community. Co-operative factories are able to make changes more easily than those privately owned, if only for the reason that the changes are made by the patrons themselves and for their own betterment. The capital invested in a factory by each patron need not be large and is merely a safeguard for his main business. The number of patrons will be more constant under co-operation and the patron who elects his own board of directors for the year need not worry about any neglect of his interests.

AN ILLUSTRATION OF CO-OPERATION.

Merely for purposes of illustration we wish to refer to the Elma or Dominion factory in Perth County, which has been established on a co-operative basis for about forty years. This factory is illustrated below and stands in sharp contrast to scores of other privately owned factories. This factory is by no means the only

co-operative factory in Ontario, for we are given to understand that of the sixty or more factories in the County of Hastings, scarcely a one can be found that is not owned by the patrons. The illustration (a rear view) shows the Dominion factory to be unusually large, its make being over 250 tons yearly. At the right is one of the two receiving platforms opening into the vat room, off which is the whey butter room with two large separators and a covered whey tank into which the whey is run from the vats and which can be seen projecting outside and well covered to the left. From this large vat the whey is injected by steam to a small tank above the separators which are run on alternate days. From the separators the skimmed whey is fed into a small galvanized tank feeding the pipe line crossing the chimney to the sunken vat outside. Steam pasteurizes the whey and again injects it into the two large covered tanks on the extreme right of the illustration, from which the teams secure it to distribute to the patrons. Immediately back of the chimney is the engine room and to the right of this the press room. The far end of this is used in the winter for butter or cheese, since it is partitioned off and can be easily heated. This is a year round factory. Behind the press room, but invisible to the reader, is the cool-curing building, with storage room for ice at one end and a residence for the cheesemaker at the other. The patron has no worries from one year's end to another except to deliver his milk to the stand each morning and to receive his check, which must be forthcoming within fifteen days of the sale of the cheese (it usually comes within ten days). A making charge of 2.3 cents per pound is charged this year and this covers everything from the end of the patron's lane to the floor of the car on which the cheese are loaded for the market. Ten wagons are owned by the factory and the various routes are auctioned off each year to the best bidder, who must furnish a team and man and agree to certain rules for collection set by the patrons. The making charge covers any improvements to the factory and the salary of the salesman as intimated above, and the board of directors are responsible to the patrons at the annual meeting. If the latter make a bad choice they must pay for it, but they can hold no one but themselves responsible. No dividends are paid, the shareholder getting his reward in the form of service from the factory. The fat plus two method is used in paying by test and milk has been paid for according to quality for about thirty years.

PAYMENT FOR MILK BY TEST.

The old pooling system of paying for milk is doomed. It is true that not many cheese factories are paying for milk according to quality as yet, but the change will and must come if the individual patron is to get the most out of the cheese industry. We have not the figures for Western Ontario for 1919, but in Eastern Ontario only 94 out of 787 factories paid for milk according to quality. It is very unfortunate that paying for milk by test received such a serious setback in 1916 when the Dairy Standards Act was passed, but, due to the timidity of a Government and the inexcusable public disagreement of Government officials, was not put into effect. Payment according to quality is just, even if it does mean that a dairyman producing low-testing milk should receive less than his neighbor. The one man has low-testing milk merely because there has never been any advantage in producing milk of higher fat content, but the producer of high-testing milk has suffered the loss that was the other man's gain. This is decidedly unfair and by no means represents the ideal that farmers as a body are uniting to further. Why should 100 pounds of 3 per cent. milk that will make only 8.52 pounds of cheese return the producer exactly the same amount of money as 100 pounds of 4 per cent. milk that will make 10.08 pounds of cheese. The argument is frequently advanced that the fat content does not make any appreciable difference in the yield of cheese. This is a fallacious argument and is not borne out by the truth. Truth and actual tests indicate that the yield of cheese increases almost if not quite in proportion to the fat content of the milk. So far as the principle is concerned it does not make a particle of difference whether the straight fat or the fat plus two method is used so long

as the patrons are paid for the quality of milk they actually produce. The cheese industry stands to-day in need of payment by test in order that those who support it may be rewarded according to the contribution they make toward its support. There is only one argument in favor of payment according to quality and that is the argument of fairness. The cheese industry in Canada can never reach its most favorable development under unfair methods of payment for the raw material of manufacture. No other industry has ever been able to keep the confidence of all parties under unfairness and there is no reason for thinking that, with competition becoming keener, cheese making will prove an exception.

UTILIZING THE WHEY.

The whey from cheese making contains on the average about .23 per cent. of fat, which is as much as is contained in over half a pound of cheese or a quarter of a pound of butter. A ton of whey will make on the average about 4 pounds of whey butter, leaving still between 85 and 90 pounds of whey for hog feeding that will contain about .03 per cent. of fat. During the last two or three years whey butter plants have been installed in many factories. There were, out of the 787 factories in Eastern Ontario in 1919, however, only 209 factories making whey butter and 183 shipping whey cream. A 100-ton factory will require about 2,000,000 pounds of milk and will have about 1,000 tons of whey during the season from which over \$2,000 additional revenue could be secured if butter were made and sold at 50 cents per pound. If the cream only is sold the revenue is likely to be in the neighborhood of \$500 to \$600 less, a difference which the average factory is rarely in a position to lose. Every small business must be conducted so as to get the most out of it if it is to succeed and, as mentioned above, cheese factories must of necessity be of relatively small size. It is the loose ends that need careful watching and if a factory is to hold its patrons, no source of revenue can go to waste.

What the value of the whey is for hog feeding no one seems able to determine to the satisfaction of anyone else. Various estimates ranging all the way from \$4 to \$8 per ton have been made to the writer by patrons of factories, but no one seems willing to place much reliance on his own estimate. Its value does, of course, depend upon circumstances, but it has a value nevertheless, and even the man who wants it but doesn't know what it is worth can put a value on it of some kind in his own mind. There is no doubt about the fact that it is valuable as a hog feed and patrons of factories hate to do without it. Many have told us that there is something about it that makes a pig do better and they want it if they are to keep on raising hogs. The relation of whey to farm practice through its connection with the live stock on the farm is a factor to be considered when cheese is under consideration as a market for milk. The demand for whey is a strong factor that will help to hold many patrons of cheese factories and to be able to use it promptly is an advantage that patrons should make use of. Pasteurization is a safeguard which the more progressive factories are providing, in order to lessen the risk of disease in hogs. The loss of a few hogs through infected whey may easily lessen the attraction of the cheese factory for any patron.

GRADING A NECESSITY.

When we turn to the selling end of the cheese business we reach the point where inefficiency may destroy the beneficial effects of all the labor expended in producing clean milk, all the skill of the cheese maker in turning out a first-class product, and all the saving wrought by a complete utilization of by-products. No matter how scrupulously careful the methods of the producer or the maker, if good cheese does not command an adequate premium over inferior cheese, all the skilled effort and conscientious endeavor represented by the higher quality of the former will have been expended for nought. The successful farmer, who, by hard work and intelligent handling of his farm, is able to secure a yield of grain five bushels in excess of his neighbor, would not consider it fair if the market were to demand that this grain be sold at an average price per acre.



Elma Cheese Factory in Perth County, One of the Largest and Most Complete Co-operative Factories in Ontario.

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The feeder who ships a carload of prime steers would refuse indignantly to sell them on the same basis as common stock. Labor and care expended in turning out a good product is worthy of its just reward and the contributors to a superior type of cheese deserve a better price for their product than those who have been more careless or less skilful. More and more we are putting the marketing of our products upon a graded basis. Our wheat is sold on grade; our live stock is classified on the market according to quality; our fruit cannot be disposed of on the larger markets unless branded with its quality, and lately our creamery butter is achieving a graded basis of sale. Cheese must fall into line with other products or be forsaken by those who will patronize another market where the farmer can secure an outlet for his milk that will return him its full market value.

Grading our farm products is a matter of national as well as local importance. Much of our cheese is exported and across the water in Great Britain the Canadian dairyman must compete with the product of dairymen in other countries. Grading confers its greatest value upon the dairyman when it makes it possible for him to sell a uniform product. All markets appreciate uniformity and the consumer invariably pays more for an article that he has found to be of one quality whenever he buys it than for another upon which he can never depend. The very foundation of the cheese industry in Canada is our market in Great Britain, a fact which was plainly proven by the consternation which the decision of the British Ministry of Food was able to cause last year. Fortunately, in this as well as in other aspects of marketing, sentiment in favor of grading is rapidly gaining and as producers become organized more fully the officers which these organizations elect will have an opportunity to study and appreciate the necessity for standardized products more fully than can individual farmers working singly. The immediate advantage of grading is that inferiority is immediately reflected in the market price, which is an acute reminder that something is wrong. The patron, who is most interested, can then insist upon a speedy improvement. It is to be hoped that it will not be long before all Canadian cheese will be sold on a graded basis, because then only can the milk producer rest satisfied that the cheese made from milk supplied by him will return him his full share of the world's market price.

CO-OPERATIVE SELLING.

Once the cheese are graded and put in the most favorable condition for selling the actual method of selling is next in importance. We believe the present method of sale to be capable of much improvement. It should be distinctly understood, however, that in any discussion of this matter the primary purpose of any method of sale or any channel of distribution is to get the product from the producer to the consumer. These two are the principals in all trade—carriers, dealers, exporters, importers, salesmen, etc., important and necessary as may be the services they provide, are, after all, only incidents along the way. Just as cheese-making is only a means of disposing of milk, so these various agents are in reality merely servants of either the producer or the consumer. Simplicity in barter was left far behind when cities were built and international trade established. Men saw opportunities for profit in performing service for the public, and this service has now become a necessity.

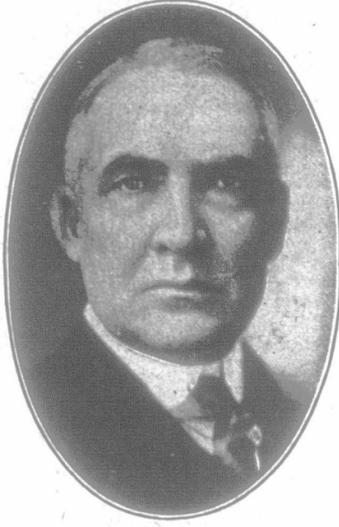
We do not believe that the farmer should become his own distributor except under exceptional circumstances. For this reason we can see no advantage for him in going beyond the large wholesale markets with his produce. At the same time he should be in a position to control his produce until it reaches this market. In Canada, Montreal is the primary cheese market, and the greatest return from milk for cheese making will never be secured until the cheese is sold by the patron on this or a similar market. Obviously such sale must be made jointly by many factories if the keenest competition is to be developed between dealers who desire to act as distributors for the consumer. This means co-operative selling.

CHEESE BOARDS.

At the present time cheese boards are a time-worn institution in the cheese business. It is not the purpose of this article to be unduly critical of local cheese boards nor of the men who compose them. They, both the boards and their individual members, have performed good service in times past and cheese boards were no doubt the natural result of early difficulties in marketing. As a modern sales agency, however, they are faulty and expensive. The producer is at a disadvantage in that he is as far away as he can get from the ultimate destiny of his product. Neither buyer nor salesman see the cheese; and the salesman, unless he sells for a large number of factories, cannot be paid sufficient to make it worth his while to know the market thoroughly. Even if all the cheese on some local boards were sold

by one salesman there would seldom be sufficient to warrant paying for expert ability in marketing.

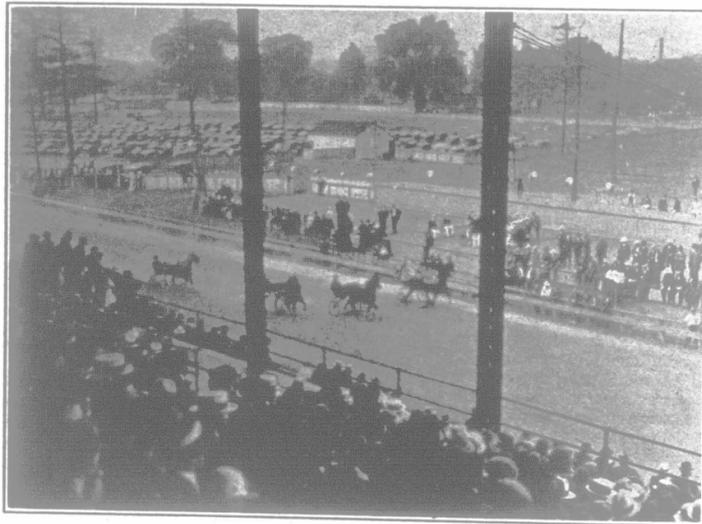
Aside from the expense of many salesmen, many organizations, and many buyers maintained by the dealers at the expense of the local factories, the principle of the cheese board is good. That is to say, there is everything to be gained by the practice of selling the product of a number of factories by auction at one time and to the highest bidder. But, unfortunately, instead of becoming joint auction sales agencies, cheese boards in many instances degenerate into a game between the buyers, or representatives of large dealers. Of course,



Senator Warren G. Harding

Republican Nominee for President of the United States.

keen competition is legitimate and desirable, but in many instances it is not open, and the small factory salesman is as likely to sell under the market as he is to get a fair price. Some salesmen, although boarding their cheese regularly, almost invariably sell off the board, sometimes as "regulars" for a certain dealer who thus secures a certain proportion of his requirements without entering into open competition for them. This in itself would not be so serious as it is a matter between buyer and seller, but it tears at the very principle upon which the boards are claimed to operate. Some



A General View of the East Middlesex U. F. O. Picnic.

Queen's Park, London, Ont., Wednesday, June 9, 1920.

salesmen never sell on the board, although they list their offerings. In a surprisingly large number of cases board meetings degenerate into mock performances when buyers refuse to bid what they are willing to pay and do all their buying on the street afterwards at prices as much as two cents per pound above the highest bid on the board. It is time that this method of selling was replaced by some other that will secure open competition. The large cheese dealer is no sentimentalist in business, whatever he may be in private life. He is out to get cheese as cheaply as possible and there are enough others in the same business and with the same objects in view to make the game a thrilling one and none too open-handed.

So far this season we have secured daily press reports of fifty-three meetings of thirteen local cheese boards in Ontario. At all of these meetings cheese was offered for sale. Six boards held nine meetings at which no sales whatever were made; four boards held seven meetings at which only part of the cheese was sold. Only five of the fifteen boards representing twenty meetings, or thirty-seven per cent of the total, have apparently come through the season so far with straight auction sales of all the cheese offered on the board. There are instances where the bidding did not reach high prices paid on other

boards by nearly three cents per pound. There are other cases where the prices actually paid on the board averaged more than three cents per pound above the prices secured on other boards. This variation does not appear to be due to a difference in the quality of cheese, or any difference made necessary on account of freight charges. No one board appears to have held the advantage of the price throughout the season thus far. We fail to see any virtue in the further continuation of this method of selling. Undoubtedly the auction plan is the safest in the long run, but it should be put upon a really co-operative basis, and the cheese sold by grade and in large volume on the largest market in the country.

We are free to admit that there is, in this article, much that is critical of present practices in the cheese industry. Such criticism as has been offered, however, we believe to be constructive and practical. Criticism is always good if it is constructive and "The Farmer's Advocate" is devoted to the interests of the producer. The next article of this series will deal with butter as a market for our milk.

FARM BULLETIN.

Republican Nominee for President.

The announcement that Senator Warren G. Harding of Ohio, is the choice of the recent Republican convention held in Chicago, as nominee for President of the United States in the forthcoming election will come as a surprise to thousands of individuals. Senator Harding was distinctly a dark horse, and the choice of the machine politicians who brought him forward on the second day of the balloting to break the deadlock between General Wood and Governor Lowden, both of whom, along with Senator Hiram Johnston of California, had been considered favorites.

East Middlesex U. F. O. Picnic.

The Western Fair grounds, Queen's Park, London, was the scene of a monster picnic on Wednesday, June 9, under the auspices of the U. F. O. Clubs of East Middlesex. The baseball games started at ten o'clock in the morning, and several hundred people witnessed the first game. The day was hot and bright, and about three o'clock in the afternoon the sports and the main program of the day began. The crowd had swelled to fully three thousand, and later on in the afternoon there were in the neighborhood of five thousand people on the grounds. Horse racing, foot races for the younger people, and other sports, contributed to the day's enjoyment, while the speaking which was to have occupied a prominent place on the program was relegated to a rather inconspicuous position well on in the afternoon. None of the speakers said anything of particular moment, except to compliment the Ontario Government and the farmer members of their accomplishments during the recent session. It is interesting to note that the representative of "The Farmer's Advocate," although comparatively close to the speaker, did not hear Mr. Andrew Hicks, M. P. P., make the statement regarding the attempted bribery of farmer members which he is alleged to have made. We do distinctly remember hearing him make the statement which he says he made. The accompanying illustration gives a general view from the grandstand during the racing, and shows to the left the very large number of cars present estimated to be worth at least five or six hundred thousand dollars.

Proposed Changes in Luxury Tax.

On Wednesday, June 9, marked changes in the budget proposals of the Government at Ottawa were announced to the House of Commons by the Finance Minister, Sir Henry Drayton. Instead of a tax on all of the essential articles of clothing, amounting to ten per cent, over certain fixed prices, the changes proposed will mean a tax of nearly fifteen per cent of the amount in excess of these fixed prices. It was also announced that on articles of clothing, the selling price of material and cost of manufacturing when sold separately are to be combined for determining the selling price. So far as is known, however, these and other changes which were announced by the Finance Minister have not been put into effect by the Government, taxes still being collected according to the Budget Speech of May 18.

Liquor Referendum Probably on October 25.

It has been announced from Ottawa that the liquor referendum for Ontario will be held on Monday, October 25, although the date so far as we know, has not yet been formally fixed. It is understood that an endeavor will be made to have all the provincial referenda that have been requested held on the same date. Saskatchewan, Alberta and Ontario have made requests to date. On Saturday, July 10, a plebiscite on Provincial prohibition will be taken in the Province of New Brunswick. This will be the first plebiscite under provincial laws at which women will have equal suffrage.

It is unfortunate that so many small orchards throughout the country are being neglected. The great bulk of our apples that are exported come from these small farm orchards, and very little attention is being paid to the growing of good fruit.

Toronto (U. S. Y.)
Montreal (Pt. St. C.)
Montreal (East End)
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Calgary.....
Edmonton.....

Toronto (U. S. Y.)
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Market C

Toronto (U. S. Y.)

Receipts for the forty-eight hundred calves, five and thirteen hundred and lambs. Price of beef cattle were on the previous week included a great very average quality general average of a week ago. At the prevailing high unfinished grass on Monday's receipts, the volume of corn were a factor cont undertake. On T dull and sluggish market was fairly there was a still weak. It is not considered will be marketed in for another week, a should remain steady top sales were the of sixteen head average and eighty pound weighing ten hundred at \$17.50, two hundred and sixty steer weighing fifteen nine steers average pounds at \$15.75, averaging eleven pounds around \$16 two choice steers demonstration or \$18 per hundred. placed choice he range of \$15.75 to quality from \$14 light butchers and \$16 straight loads and medium quality to \$14.25. Choice from \$12.75 to \$13 \$13.75, and medium \$11.75 to \$12.50. \$13.25, and a few of \$13.75. Choice from \$12.50 to \$13. \$11 to \$12. The exceptionally strong being marked up on maintained for the Top sales were made sales from \$17.50 to good calves moved and common calves \$13 per hundred. Heavy mutton cut during the week on account of prefer shipments of spring of light sheep were h sheep sold from \$8.5 light sheep from \$10 yearlings up to \$ were weighed up from lighter stock from \$ were sold around \$ pects are that ma tinue to weaken. The hog market packers firm in th duce values as it costs have been out meat market. Price and watered basis v with a few going

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending June 10.

Receipts and Market Tops.

Dominion Department of Agriculture, Live Stock Branch, Markets Intelligence Division

	CATTLE						CALVES						SHEEP					
	Receipts			Top Price Good Steers (1,000-1,200)			Receipts			Top Price Good Calves			Receipts			Top Price Good Lambs		
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending
	June 10	1919	June 3	June 10	1919	June 3	June 10	1919	June 3	June 10	1919	June 3	June 10	1919	June 3	June 10	1919	June 3
Toronto (U. S. Y.)	4,495	4,765	4,044	\$15.75	\$13.00	\$16.75	1,615	1,612	1,817	\$18.50	\$18.00	\$17.00	1,351	1,296	984	\$21.00	\$16.00	\$20.00
Montreal (Pt. St. Chas.)	782	412	468	16.00	14.00	16.50	2,540	2,174	2,204	16.00	15.00	16.50	465	363	449	20.00	20.00	*12.00
Montreal (East End)	819	268	332	16.00	14.00	16.50	1,947	1,199	1,722	16.00	15.00	16.50	511	293	486	20.00	20.00	*12.00
Winnipeg	1,932	701	1,897	16.50	15.00	18.50	392	101	597	14.00	16.00	18.00	307	135	142	15.00	15.00	17.00
Calgary	1,703	1,211	663	15.00	12.75	16.75	69		52	15.50		16.00						
Edmonton	322	192	466	13.00		15.00	59	7	30	17.00	13.00	18.50		69		15.00		

Market Comments.

Toronto (Union Stock Yards)

Receipts for the week amounted to forty-eight hundred cattle, sixteen hundred calves, fifty-five hundred hogs and thirteen hundred and fifty-one sheep and lambs. Prices for good quality beef cattle were on a par with those of the previous week, but as the offerings included a great many loads of only very average quality, consequently the general average of prices was below that of a week ago. Attracted no doubt, by the prevailing high prices, a number of unfinished grass cattle were included in Monday's receipts, and these as well as the volume of common unfinished cattle, were a factor contributing to a weaker undertone. On Tuesday trading was dull and sluggish and whilst Wednesday's market was fairly steady on Thursday there was a still weaker feeling to trading. It is not considered that grass cattle will be marketed in considerable numbers for another week, and in that case prices should remain steady. Included in the top sales were the following; one load of sixteen head averaging eight hundred and eighty pounds at \$17, one steer weighing ten hundred and thirty pounds at \$17.50, two head averaging eleven hundred and sixty pounds at \$16, one steer weighing fifteen hundred at \$16.00, nine steers averaging nine hundred pounds at \$15.75, and twenty-one steers averaging eleven hundred and fifty pounds around \$16 and \$16.50. One or two choice steers were purchased for demonstration or show purposes, at \$18 per hundred. Representative prices placed choice heavy steers within a range of \$15.75 to \$16.50, with medium quality from \$14.50 to \$15.50, choice light butchers and heifers from \$15 to \$16 straight loads from \$14.50 to \$15.60, and medium quality stock from \$13.75 to \$14.25. Choice butcher cows sold from \$12.75 to \$13.50, with tops up to \$13.75, and medium quality moved from \$11.75 to \$12.50. Good bulls sold up to \$13.25, and a few of choice quality up to \$13.75. Choice feeding steers ranged from \$12.50 to \$13.50, and stockers from \$11 to \$12. The calf market was exceptionally strong and values after being marked up on Monday, were well maintained for the balance of the week. Top sales were made at \$19, and numerous sales from \$17.50 to \$18.50; medium to good calves moved from \$14.50 to \$16.50, and common calves moved from \$10 to \$13 per hundred.

Heavy mutton sheep were severely cut during the week, not being in demand on account of preference for the heavy shipments of spring lambs. Other grades of light sheep were hardly steady. Heavy sheep sold from \$8.50 to \$9.50 per hundred light sheep from \$10 to \$12.50, and a few yearlings up to \$13.50. Spring lambs were weighed up from \$19.50 to \$21, with lighter stock from \$18 to \$19. A number were sold around \$15 each. The prospects are that mature sheep will continue to weaken.

The hog market was unsettled with packers firm in their intentions to reduce values as it is stated that recent costs have been out of line with the dead meat market. Prices for selects on a fed and watered basis were quoted at \$19.25 with a few going to local butchers at

TORONTO				MONTREAL (Pt. St. Charles)		
CLASSIFICATION	No.	Avg. Price	Price Range Bulk Sales	Top Price	Avg. Price	Top Price
STEERS						
heavy finished	328	\$15.46	\$14.50-\$17.00	\$17.00		
STEERS good	279	14.40	12.00-15.75	15.75	\$15.50	\$15.00-\$15.75
1,000-1,200 common	2			14.50		
STEERS good	791	15.18	12.00-15.50	15.75	14.75	14.00-15.50
700-1,000 common	291	11.37	10.50-14.00	14.00	12.75	12.50-13.00
HEIFERS good	599	14.82	12.00-15.50	16.00	14.00	13.00-15.00
fair	306	13.32	9.50-14.50	14.50	12.00	11.00-13.00
common	101	11.13	10.00-12.50	12.50	9.25	8.50-10.50
COWS good	267	12.94	9.50-13.25	13.50	12.25	11.00-13.00
common	880	11.01	7.50-12.00	12.00	10.00	9.00-10.50
BULLS good	124	11.95	8.00-13.00	13.25	11.75	10.50-12.50
common	59	9.71	6.00-11.50	11.50	10.00	9.00-10.50
CANNERS & CUTTERS	188	5.92	3.00-7.00	7.00	6.50	5.50-7.00
OXEN					12.50	11.00-13.00
CALVES veal	1,615	16.20	5.00-17.50	18.50	13.50	11.00-15.00
grass						
STOCKERS good	270	11.50	8.50-12.00	12.00		
450-800 fair	111	9.80	6.50-11.00	11.25		
FEEDERS good	132	12.63	10.00-13.25	13.50		
800-1,100 fair	15	10.33	8.50-12.00	12.50		
HOGS selects	4,707	19.30	19.25-19.50	19.50	20.40	20.50
heavies					19.70	19.50-20.00
(fed and lights	540	17.30	16.50-17.50	17.50		
watered) sows	250	15.25	14.25-16.50	16.50	16.40	16.50
stags	3			13.50		
LAMBS good	343	20.14	19.00-21.00	21.00	18.00	17.00-20.00
common	1			19.50		
SHEEP heavy	1			9.50		
light	709	11.79	10.00-13.00	13.50	11.60	11.50
common	297	8.14	6.50-10.00	10.00	10.50	11.00

\$19.50, heavies sold at \$18.25, lights at \$17.25, and sows from \$14.25 to \$16.25.

Of the disposition from the Yards for the week ending June 3rd, Canadian packing houses purchased 1,102 calves, 3,334 butcher cattle, 7,654 hogs and 176 sheep and 365 lambs. Local butchers purchased 281 calves, 222 butcher cattle, 603 hogs and 399 lambs. Canadian shipments were made up of 52 calves, 202 stockers, 18 feeders, 64 hogs and 35 sheep. Shipments to United States points consisted of 560 calves and 72 stockers.

The total receipts from January 1 to June 3, inclusive, were 123,591 cattle, 39,884 calves, 150,450 hogs and 19,069 sheep; compared with 131,086 cattle, 28,906 calves, 156,997 hogs and 28,688 sheep, received during the corresponding period of 1919.

Montreal.

A large percentage of the cattle offered on Monday were shipped in from the Western Ontario; these Western offerings were nearly all of good quality, but for different reasons, among which were the offering of comparatively large numbers of animals of practically the same grading, the fact that at least part of the stock had been on grass for only a short period, and the impending hot weather, prices paid were lower by about 50 cents per

hundred compared with those of the previous week. A load of choice heavy steers that arrived on Wednesday were held for next Monday's market. The top price for a straight load was \$15.80; good loads sold generally from \$14.50 to \$15.50, mixed lots of fairly good steers good oxen, and one of two fat cows, all brought around \$13. Two lots of fair quality baby-beeves sold at \$14 and \$15 per hundred, respectively. Fat cows were the only cattle that held steady with former quotations. Buyers state that at this season when steers are as high as at present, fat cows are in good demand for two weeks or more. It is claimed that prices prevailing at present, are not based on the value of dressed beef, but are the result of a temporary shortage, and are, therefore, likely to be easily affected by large runs of poor quality cattle. Reports from local points indicate that cattle are in better condition than was expected, and that since the recent rains the pastures are improving. Calves were higher due to the lower percentage of poor calves and the good demand; top prices for good lots ranged around \$14.50 to \$15, with an odd sale up to \$16. Out of sixty-two hundred and sixty-seven calves shipped to one of the Montreal Yards since the inauguration of inspection, one hundred

and sixty-one head were confiscated, seventy head of these being taken from the shipments of four drovers. Some of the benefits to be derived from the elimination of immature calves on the markets are already apparent.

Sheep and lambs remain about steady, light lambs proving the exception. There is every indication of a large run of good lambs during the late summer and fall. Good lambs sold around \$11 each, and sheep from \$11 to \$12 per hundred, with very thin old sheep as low as \$8.

Selected hogs of medium weights for local trade moved at \$20.50 off cars. There is a very large percentage of sows being marketed from points East of Montreal; these sows should be retained as stock sows, and made use of instead of breeding immature young sows in the fall. The percentage of sows in shipments of hogs from the east during last fall ran around thirty and forty per cent. A great many of these sows had only raised one litter. Mixed lots of sows, heavies and selects weighed off cars brought from \$19 to \$20.

Pt. St. Charles.—Of the disposition from the Yards for the week ending June 3, Canadian packing houses and local butchers purchased 2,204 calves, 467 butcher cattle, 1,994 hogs and 449 sheep. Canadian shipments were made

up of 4 hogs. There were no shipments made to United States points during the week.

The total receipts from January 1, to June 3, inclusive, were: 12,254 cattle, 33,388 calves, 26,794 hogs and 6,330 sheep; compared with 13,795 cattle, 33,468 calves, 29,416 hogs and 6,594 sheep, received during the corresponding period of 1919.

EAST END.—Of the disposition from the Yards for the week ending June 3rd, Canadian packing houses and local butchers purchased 1,722 calves, 302 butcher cattle, 1,256 hogs and 486 sheep. There were no shipments to United States points during the week.

The total receipts from January 1 to June 3, inclusive, were: 13,504 cattle, 26,880 calves, 17,619 hogs and 5,303 sheep; compared with 15,973 cattle, 24,653 calves, 16,248 hogs and 6,955 sheep, received during the corresponding period of 1919.

Winnipeg.

Nineteen hundred and thirty-two cattle, three hundred and ninety-two calves, three hundred and seven sheep, and four thousand and sixteen hogs comprised the weekly receipts, while sixty-five cattle were moved on through-billing. Packers operated to the extent of seven hundred and sixteen cattle, four hundred and thirty calves, thirty-five hundred and sixty hogs, and two hundred and thirty-one sheep, and Eastern points absorbed one hundred and three butcher cattle, fifty-one feeders and one hundred and eighty stockers. Western points accounted for eight hundred and twenty-one stockers, one hundred and sixty-six feeders, and forty hogs, while shipments South consisted of one hundred and forty-one stockers and sixty-six feeders. Dull trading was the rule throughout the week with the market being exceptionally weak for nearly all classes and grades of cattle. The past three days found local packers operating on a small scale in a further effort to lower prices, and in this connection they proved successful as quotations on most classes of butcher cattle showed a decline of from \$1 to \$2.

Buffalo.

Cattle.—Cattle prices were given another strong boost at Buffalo last week—shipping steers generally and the better kinds of handy butchering cattle selling generally from a dollar to a dollar and a half above the previous week, while a medium and common class of handy kinds ruled a full quarter to a half higher, good to best fat cows selling a half higher, common butchers strong on canners with cutters about a quarter stronger. Bulls of all kinds were ready sale at strong prices. The only weak spot in the market was on milk cows and springers, these being draggy and selling barely steady with the previous week. Grass cattle are moving now and these are quotable a dollar to two dollars under dryfeds of the same kind. Stock and feeding cattle are showing more activity. Only a few scattering loads of Canadians were offered. Offerings for the week totalled 2,575 head, as against 1,850 head for the previous week and as compared with 4,150 head for the corresponding week a year ago. Quotations:

Steers—Canadians—Best, \$11 to \$12; fair to good, \$10.25 to \$10.50 common and plain, \$10 to \$10.50.

Butchering Steers—Yearlings, good to prime, \$14 to \$15.50; choice heavy, \$14.50 to \$15.25; best handy, \$13.50 to \$14.25; fair to good, \$12.50 to \$13; light and common, \$10 to \$11.

Cows and Heifers—Heavy heifers, \$13 to \$13.50; best butchering heifers, \$12.25 to \$13.25; good butchering heifers, \$10.50 to \$11; fair butchering heifers, \$9 to \$10; light, common, \$7.50 to \$8; very fancy fat cows, \$10.50 to \$11; best heavy fat cows, \$10 to \$10.50; medium to good, \$8.50 to \$9; cutters, \$6 to \$7; canners, good, \$5 to \$5.75; old rims, \$4 to \$4.50.

Bulls—Best heavy, \$10.50 to \$11; good butchering, \$8.50 to \$9; sausage, \$8 to \$8.50; light bulls, \$7 to \$8; oxen, \$9 to \$11.50.

Stockers and Feeders—Best feeders, \$9.50 to \$10; common to fair, \$8 to \$9; best stockers, \$8 to \$8.50; fair to good, \$7.75 to \$8.25; common, \$6 to \$7.

Milkers and Springers—Best, \$90 to \$125; medium to good, \$60 to \$85.

Hogs.—Receipts were lighter last week, and market was somewhat improved. Heavy hogs and pigs, however, were still showing a big margin under the handy

grades. Monday the general market for yorkers and mixed grades was \$15.25, several decks made \$15.35, heavies ranged on down to \$14.50 and pigs landed at \$13.50. Tuesday the trade was generally steady, Wednesday light hogs were higher, yorkers and mixed grades selling from \$15.50 to \$15.75, heavies went as low as \$14.50 and buyers got pigs from \$13 to \$13.50. Thursday the bulk of the handy grades brought \$15.75, two decks made \$15.80, with pigs selling from \$13 to \$13.50 and Friday heavies again sold to \$14.50, light grades landed mostly at \$16, and pigs sold largely at \$13.50. Roughs, 12 to 12.50, and stags \$8 to \$9. Receipts for the week were 21,800 head, being against 23,803 head for the week before and 23,500 head for the same week a year ago.

Toronto Produce.

Breadstuffs.

Manitoba Wheat.—(In store, Ft. William). No. 1 northern, \$3.15; No. 2 northern, \$3.12; No. 3 northern, \$3.08.

Manitoba Oats.—(In store, Ft. William).—No. 2 C.W., \$1.33; No. 3 C.W., \$1.33; extra No. 1 feed, \$1.33; No. 1 feed, \$1.32; No. 2 feed, \$1.31.

Manitoba Barley.—(In store, Ft. William). No. 3 C.W., \$1.90½; No. 4 C.W., \$1.64½; rejected, \$1.60½; feed, \$1.60½.

Ontario Wheat.—(f.o.b. shipping points, according to freight)—No. 1 winter, per car lot, \$2 to \$2.01; No. 2 winter, per car lot, \$1.98 to \$2.01; No. 3 winter, per car lot, \$1.92 to \$1.93; No. 1 spring, per car lot, \$2.02 to \$2.03; No. 2 spring, per car lot, \$1.98 to \$2.01; No. 3 spring, per car lot, \$1.95 to \$2.01.

American Corn.—(Track, Toronto, prompt shipment). No. 3 yellow, \$2.40, nominal.

Ontario Oats.—(According to freights outside)—No. 3 white, nominal, \$1.10.

Peas.—(According to freight outside)—No. 2, \$3.

Barley.—(According to freights outside)—Malting, \$1.87 to \$1.89.

Buckwheat.—(According to freights outside)—No. 2, nominal.

Rye.—(According to freight outside)—No. 3, \$2.20 to \$2.25.

Millfeed.—Car lots, delivered, Montreal freights, (bags included)—Bran, per ton, \$54; shorts, per ton, \$61; good feed flour, per bag, \$3.75 to \$4.

Hay.—(Track, Toronto)—No. 1, per ton, \$30 to \$31; mixed, per ton, \$25.

Straw.—(Track, Toronto)—Car lots, per ton, \$16 to \$17.

Manitoba Flour.—Government standard, \$14.85, Toronto.

Ontario Flour.—(In jute bags, prompt shipment)—Government standard, \$18.25 nominal, Montreal and Toronto.

Hides and Skins.

Hides f.o.b. country points—Beef hides flat cured, 10c. to 12c.; green hides, 9c. to 11c.; deacon or bob calf, 75c. to \$1.25; horse hides, country take-off, \$5 to \$6; No. 1 sheep skins, \$1.50 to \$2.25; yearling lambs, 75c. to \$1; horse hair, farmers' stock, 38c.

City Hides.—City butcher hides, green flats, 15c.; calf skins, green flats, 20c.; veal kip, 15c.; horse hides, city take-off, \$5 to \$6.

Tallow.—City rendered, solids in barrels 11c. to 12c.; country solids in barrels, No. 1, 10c. to 11c.; cakes, No. 1, 13c. to 14c.

Wool.—Unwashed, coarse, 18c.; medium, 22c.; fine, 28c.

Farm Produce.

Butter.—The butter market was again weaker, declining from two to three cents per pound, selling as follows, wholesale: Fresh-made creamery squares, 54c. to 57c. per lb.; creamery solids at 54c. to 55c. per lb.; cut solids at 55c. to 56c. per lb.; choice dairy at 45c. to 50c. per lb.

Eggs.—New-laid eggs kept stationary in price, selling at 51c. to 54c. per doz., wholesale.

Cheese.—Cheese kept very firm, 35c per lb. being quoted for the old variety, and 32c. per lb. for the new, wholesale.

Poultry.—With the exception of spring chickens, poultry is showing a weaker tendency, and lower prices will be quoted in the next few days. The following prices being quoted for live weight and dressed varieties to the producer. Live weight prices—Chickens, spring, 60c. per lb.; yearling chickens, 30c. per lb.; ducklings, 40c. per lb.; hens, under 4 lbs., 32c. per lb.; hens, 4 to 5 lbs., 37c. per lb.; hens, over 5 lbs., 40c. per lb.; roosters, 25c. per lb.; Guinea hens, per pair, \$1.25.

Wholesale Fruits and Vegetables.

The first Canadian strawberries for this season came in on Thursday, and sold at 45c. per box. They were rather small, but of good flavor and very sweet.

Canadian new beets have commenced to be shipped in also, and brought from 75c. to \$1.25 per dozen bunches.

Potatoes.—Old potatoes have kept stationary at \$6.75 to \$7 per bag. The new ones from Florida arrived freely and sold at \$13 to \$18 per bbl.

Montreal.

Horses.—Dealers report that demand for horses has disappeared entirely, and with the disappearance of demand has disappeared the offering of horses for sale. This statement must be taken with reservations. Quotations show no change, being as follows: Heavy draft horses, weighing 1,500 to 1,600 lbs., \$250 to \$300 each; light draft, 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, \$150 to \$200 each, culls, \$100 to \$125; and fine saddle and carriage horses, \$175 to \$250 each.

Dressed Hogs and Provisions.—Offerings of dressed hogs have not been large of late, and prices have been steady. City abattoir dressed stock sells at 29½c. to 30c. per lb. for fresh-killed. Smoked and cured meats are firm and in good demand. Prices for light hams are 45c. per lb., 10 to 15-lb. hams being 42c., and heavies 40c. per lb. Breakfast bacon shows little change, being 45c. to 47c. per lb., Windsor selected boneless being 55c. Lard is in fair demand, and prices range from 26c. to 30c. per lb. for pure lard, according to quantity and package.

Poultry.—Demand for all kinds of poultry is dull and practically no business is going on. Cold storage turkeys are still quoted 53c. to 54c. per lb., and chickens 38c. to 40c. per lb.

Potatoes.—All sorts of reports have been heard of the potato market. It was reported that the market had had a bad break, but dealers still quoted sales of small lots of Quebec white stock at \$6.50 to \$6.75 per bag of 90 lbs., ex-store, with reds at 50c. less than whites. Car lot prices were about \$1 less than the above. The market is evidently very uncertain.

Maple Products.—Demand for maple syrup is dull and very little is changing hands. Prices are steady at \$2.75 per gal tin of pure syrup. Maple sugar is 28c. to 30c. per lb.

Eggs.—Eggs are in fair demand. Quality is not quite so good and supplies are fairly liberal. Prices are unchanged, at 57c. per doz. for selected fresh eggs, 54c. for No. 1 fresh and 48c. to 50c. for No. 2.

Butter.—The export price of butter is reported lower and this may have an influence on the local market which at present is firm, being 56¼c. to 56½c. for pasteurized creamery, 55½c. to 55¾c. for finest and 1c. under for fine creamery.

Cheese.—On country boards, prices are ranging around 28c. to 29c.

Grain.—The market for oats is rather uncertain. Quotations are \$1.43 to \$1.45 per bush. for No. 2 Canadian Western; \$1.40 to \$1.41 for No. 3; \$1.39 to \$1.40 for No. 2 feed, ex-store.

Flour.—Nothing new has developed in the flour market, and prices are steady. Manitoba spring wheat flour is unchanged at \$14.85 per bbl., in jute bags, ex-track, Montreal freights, and to city buyers, in car lots, with 10c. more in smaller lots, and a discount of 10c. all round for spot cash. Ontario winter wheat flour is \$14.40 to \$14.50 per bbl., in new cotton bags, being slightly firmer. White corn flour is \$12.20 to \$12.30.

Millfeed.—Bran is selling at \$65 per ton, in bags, in mixed car lots with flour, while \$54.25 is charged in straight car lots, shorts being \$61.25, with 25c. less for spot cash.

Baled Hay.—No. 2 timothy hay is selling quietly at \$28 per ton, No. 3 being \$26, and clover and clover mixed \$24, ex-track.

Hides and Skins.—Another drop has taken place in prices, and hides are now cheaper than for a considerable time before the war. Stear and cow hides are 17c. per lb., bulls 13c., calf skins 25c. to 27c., and kips 18c. per lb. Sheep skins are \$2 each, lambs 25c. to 35c. each, and clips 50c. Horse hides are \$5 to \$6 each.

At the high point, steers and cows were 52c., bulls 48c., calf skins \$1, kips 50c. per lb.; sheep skins \$4.75 each, clips \$1 each, and horse hides \$15 each.

Monday's Live Stock Markets.

(Dominion Market Service.)

Toronto, June 14. Cattle.—Receipts, 2,854. Monday's market opened with prices at last week's close in butcher cattle, but unfinished stock was weaker. A load of twenty choice, medium butchers, averaging 1,185 lbs., went at \$11.75; one load of heavy butchers, averaging 1,230 lbs., passed over the scales at \$15.75; one load of nineteen choice, light butchers, averaging 850 lbs., sold at \$15.50. Numerous other loads moved at from \$14.75 to \$15.40. One draft of seven steers, averaging 1,185 lbs., sold at \$16. One heifer, weighing 870 sold at \$17. Quotations.—Heavy beef steers, \$15 to \$16; butcher steers, choice, \$14.25 to \$15.25; good, \$12.75 to \$14; medium, \$11.50 to \$12.50; common, \$9 to \$10.25. Butcher heifers, choice, \$14 to \$15.25; medium, \$11.50 to \$13; common, \$9 to \$11.50. Butcher cows, choice, \$11.50 to \$13.50; medium \$9 to \$11; canners and cutters, \$5 to \$7. Butcher bulls, good, \$11 to \$13; common, \$8 to \$10.50, feeding steers, good, \$12.50 to \$13.50; fair, \$12 to \$12.50. Stockers, good, \$11.50 to \$12; fair, \$10 to \$11. Calf receipts, 1,234. The calf market was steady with last week's close, the top sales being up to \$18.50, with bulk sales 16 to 17 cents. Quotations.—Choice, \$16.50 to \$18; medium, \$13 to \$15.50; common, \$9.50 to \$12. Milch cows.—Choice, \$130 to \$165; springers, choice, \$90 to \$130.

Sheep.—Receipts, 1,051. All classes of sheep and lambs were steady. Quotations. Ewes, \$8.50 to \$13.50; lambs, \$18 to \$21.

Hogs.—Receipts, 1,487. Hog values are quoted steady with last week's close and are expected to remain so. Quotations.—Fed and watered basis, selects, \$19.25; lights, \$17.25; heavies, \$18.25; sows, \$14.25 to \$16.25.

Buffalo, June 14. Cattle receipts, 3,000 including eighteen cars of Canadian shipments. The market is stronger by \$1 to \$1.50 over last Monday's quotation. The best native steers are selling at \$17.25, with best Canadian steers bringing \$15.50.

Hogs.—Receipts, 10,000. Lights selling at \$16.45 for bulk, of which all grades excepting pigs selling at \$16.35.

Sheep.—Receipts, 3,000. Spring lambs are selling at from \$18 to \$20; best yearlings \$15 to \$17, and best ewes, \$8.50 to \$9.

Calves.—Receipts, 3,000. Tops selling at \$17.

Montreal, June 14. Cattle.—Receipts, 1,143. Although there were the same number of cattle on market this morning as there was last Monday, prices were up to the level of those paid two weeks ago. Heavy cattle moved slower, other grades firm. Twenty steers, averaging 1,140 lbs., were weighed up at \$16; twenty-four steers, averaging 960 lbs., brought \$14. Most of the good cattle were sold between these figures. The top for selected bulls and cows was \$13; twelve cows, averaging 1,105 lbs., brought \$12.25, and twenty-two cows of very fair quality, averaging 1,085 lbs., were sold for \$11.50; just fair strippers from \$9 to \$10.50. Owing to the fact that nearly all cattle offered have been on grass, these prices are considered very high. Butcher steers, choice, \$14.75 to \$16; good, \$14.00 to \$15.50; medium, \$13.50 to \$14; common, \$11 to \$13. Butcher heifers, choice, \$13.50 to \$15; medium, \$11.50 to \$13.50; common, \$8 to \$11. Butcher cows, choice, \$11 to \$13; medium, \$8 to \$11.50; canners, \$5.50 to \$6; cutters, \$6 to \$7. Butcher bulls, good, \$11 to \$13, common, \$9 to \$10.50. Calf receipts, 1,851.

Calf market strong; sales indicate a top of \$16. Car lots of good average quality were weighed at \$15; common calves down to \$10. Quotations.—Good veal, \$14 to \$16; medium, \$10 to \$13.

Sheep.—Receipts, 942. Market steady. Quotations.—Ewes, \$8 to \$12; lambs, good, \$17 to \$20.

Hogs.—Receipts, 1,867. There was a weaker tone to the market, but, owing to scarcity of medium light hogs of good quality, sales of this grade have been made at \$20.50 off cars; mixed lots are being offered at from \$18 to \$20. Quotations.—Off-car weights, selects, \$20 to \$20.50; sows, \$16 to \$16.50.



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Me father's house
Larrie's call
Within a little
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Wid roses runnin'
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Where Larrie wh
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Larrie's son
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a girl's hea
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Ah, sure, me hear
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And, oh, ochone,
that heart

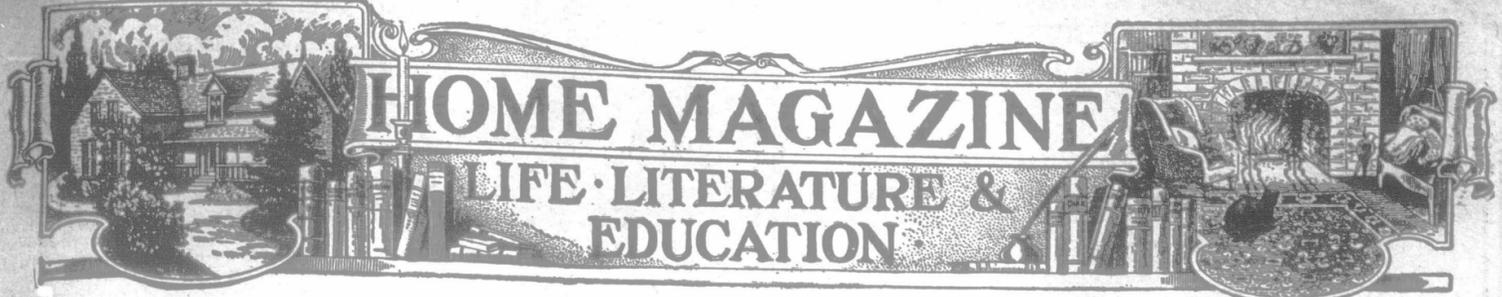
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The Little Cabean.

Me father's house is snug and warm, but
Larrie's callin' me
Within a little cabean sweet beside a
draemin' sea.
Wid roses runnin' 'round it and a-peekin'
in the door,
Where Larrie whistles 'mong the nets
upon the sandy floor.

Me father's ways are dark and still, but
Larrie's song is sweet,
Wid e'er a smole on his dear lips to make
a girl's heart beat;
And, oh, the laughin' eyes ov him would
shame a violet,
Ah, sure, me heart was shipwrecked that
fair mornin' whin we met.

Me father keeps a pen ov pigs, and Larrie
ne'er a one,
But, sure, he has the roses and the draemin'
in sea and sun,
The beach where breaks the combers and
the breeze as sweet as wine—
And, oh, ochone, ochone, ochone, he has
that heart ov mine!

Me father counts his golden pounds, and
Larrie's ne'er a note,
But don't the waves climb up to kiss his
little dancin' boat?
And what is gold but dirty dross and all
its ugly train
That steals the heart ov thim it foinds and
pays thim back in pain?

Me father's woife is harsh and cold, and
Larrie's waitin' long
Ferinst the little cabean and its sea ov
draemin' song;
So Oi'll be up and goin', and 'tis ye would
do the same
If Larrie's voice was hauntin' ye loike
some exquisite draeme.

—Gordon Johnstone.

Economize by Canning.

THE necessity for good health demands that we eat vegetables and fruit every day in the year. In the rural districts, provided with a frost-proof cellar and acquainted with the best methods of storing, we may keep the root vegetables and apples in good condition throughout the winter, and celery and pumpkins during the earlier months of it. Onions, too, may be stored in any cool, fairly dry room. But there are certain fruits and vegetables that cannot be so kept—plums, cherries, berries and all other small fruits, asparagus, spinach, green corn, beans and peas, etc. For the sake of variety at the table, however, and addition to the diet, as well as the valuable food ingredients which these food-stuffs contain, it is advisable that a supply of all these be provided, if at all possible. In the old days recourse was had to drying the fruits and vegetables, such of the former, at least, as were not made into rich preserve. Later, when the principle of sterilization was understood, came the device of canning; so to-day we have the choice of all three methods—drying, preserving, canning,—and some folk are wise enough to make use of them all. In this article we shall speak of canning only.

Systems.

Canning certainly entails a great deal of work, although there are certain women who, having but small families to provide for, prefer to make it easier by "putting down" a jar or two at a time. A few communities have established community canning centres equipped with all the most modern labor-saving devices for the work. Here the women meet and do the work in short order. But by far the greater number of women still do their canning at home, some of them, it must be confessed, under the handicap of working without proper equipment and in the hardest and least satisfactory way.

Perhaps, all of the methods are still more or less in use, viz.,

1. Open kettle, or hot pack.
2. Intermittent.
3. Cold water.
4. Oven method.
5. Cold pack.

In all of these methods except the "cold water," which is effective for only a few firm sour fruits, the principle is the same; viz., to have the fruit and everything touching it sterilized (kept for a time at 240 degrees F.) the jars so full that no air is left at the top, and the sealing so perfect that no germ can possibly enter at any time.

By the open-kettle method the fruit is boiled in a kettle and poured when done into sterilized jars, which are sealed down at once. This method does fairly well for fruits and tomatoes, but is of no use at all for vegetables in general.

The intermittent method has the advantage of being sure, and is entirely reliable for vegetables. The vegetables are blanched, i. e., scalded for 3 to 6 minutes in boiling water to remove all adhering bacteria and sliminess, and immediately plunged into cold water; then they are drained and packed in perfectly clean jars and placed on a rack in the boiler. The jars are filled with slightly salted hot water, the rubbers (first dipped into boiling water) are adjusted, the tops put on and only partially fastened. The hot water in the boiler must reach nearly to the top of the jars. The boiler-lid is put on and the boiling continued usually for an hour. Then the jars are taken out, sealed tight and left until next day, when the tops are loosened and the process repeated. On the third day a third boiling takes place. . . . This system is very satisfactory so far as keeping qualities are concerned. All the bacteria, spores, etc., are sure to be killed in one or other of the boilings, and there is not one left to begin deleterious action inside of the jars. But it entails lifting the jars out three times, and it is somewhat extravagant on fuel.

The cold-water method is sometimes used for rhubarb, gooseberries and cranberries. The method is to blanch the fruit, cool, pack into sterilized jars, then place under cold water until overflowing, when the tops are sealed down. Sometimes the sealing is done under water.

By the oven method, used chiefly for fruits, the fruit is packed in perfectly clean jars and the jars are filled with syrup. The tops are only partially sealed, and the jars placed on a pan in the oven where they are left until the contents are cooked. Berries done by this method are very nice, as they retain both shape and color very well.

Cold-Pack Method.—This method has come to be the favorite among nearly all people who can extensively; hence we shall devote a separate section to it.

Cold-Pack Method.
THE cold-pack method simply means that the fruit or vegetables are packed cold in perfectly clean jars. To the fruit hot syrup is added, to the vegetables hot salted water. Then thorough sterilization is given for one period (varying according to the product) in a boiler or commercial canner.

Utensils Needed.—If "money is no object" a commercial pressure canner will be found a great boon (directions go with it). But such a canner is rather expensive, and, besides, the products can be canned just as well in a wash boiler with a close lid, or in a new galvanized garbage pail, which may be kept afterwards for the purpose. . . . Other absolute necessities will be: a good-sized kettle and wire basket and piece of cheesecloth for blanching; a sharp paring knife; wooden or enamelled spoon; funnel; and a wire or wooden rack for the boiler. Instead of one rack, two small ones with handles, such as milkmen use for carrying bottles about the city streets may be used. Some women even prefer individual holders (for each can) as the weight, when lifting them out is so much less. At all events, whether made of heavy wire or of wood, the rack should have a handle, and it should have supports so that an inch or so of water will be beneath the jars; otherwise they will break. . . . Other things that will prove useful are: an apple corer, strawberry huller, cherry pitter, pineapple knife, colander, measuring cup and scales. Good tools always lessen labor and save time.

The jars or sealers.—Once upon a time people bought half-gallon jars—with small mouths! Now they buy quart and pint jars, with wide mouths so that they can be easily cleaned. Either screw or spring tops will do, but the latter are the

better. In either case about the mouth of the jars, also the tops, should be free from chipping or indenture of any kind; even one small opening may let in a germ floating about in the air, and then the mischief will be done. . . . The rubbers, also, are very important. The thick hard ones are not good. Always test the rubbers before buying. Bend them and pinch hard between the fingers; if they crack do not buy them. Get rubbers you can stretch without breaking, but which will spring back in place; also, when stacked together there should not be more than 12 to the inch. When fitting a rubber to a jar it should have to be stretched a little to get it on.

All this is very important, for imperfectly sealed jars are probably responsible for the great majority of failures in canning. Given perfectly sterilized, perfectly sealed fruit or vegetables, and the keeping qualities are indefinite, although, in time, a sort of chemical change sets in which impairs the flavor. For this reason one should never try to keep any canned product longer than two years.

Test.—A fair test to see that the tops are all right is to fill the jars with water, adjust rubbers and tops and invert. If no water comes out the jars are likely to be all right. Never use rubbers a second time; the risk of losing a jarful of food is too great.

An expert in canning gives the following directions for testing glass tops with spring clamp:

"Put the cover in place without the rubber, set the spring and press the clamp down. If the thumb nail can be inserted between the cover and the jar, the spring is not tight enough. To remedy, disengage the ends of the top spring from the eyelets at the side. Holding a side of the bail in each hand, press down with the thumbs on each side of the top bar. This will cause it to fit closer to the cover and increase the pressure. Return the spring to the jar and test again.

"It may be necessary to tighten the bail every year, and yet I repeatedly find housewives who never knew that this bail could be removed."

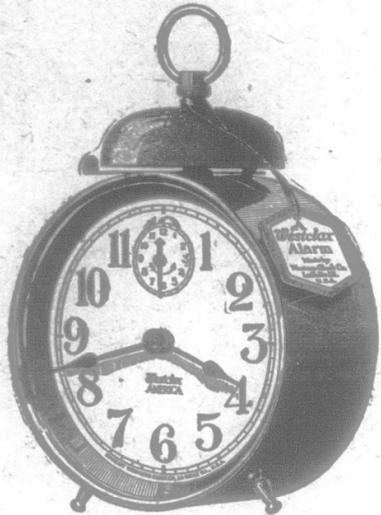
PREPARING JARS AND PRODUCTS.

Jars.—Wash the jars well with soapy water, then rinse with boiling water until



A Gathering of Distinguished Men.

Photo taken immediately before Convocation of Toronto University, at which many degrees and honorary degrees were conferred. Left to right: Sir Edmund Walker, President Board of Governors, Toronto University; Sir Arthur Currie, G. C. M. G., K. C. B., former Commandant of the Canadian Forces in France, now President of McGill University, Montreal; Mr. Lionel Clarke, Lieutenant-Governor of Ontario; Sir W. R. Meredith, Chancellor of Toronto University; Sir Charles Townshend, K. C. B., Commander of the British Army in Mesopotamia; Mr. Justice C. A. Masten, President of the University Alumni Association; Sir Robert Falconer, President of Toronto University; Dr. D. Bruce Macdonald.



America—a Westclox alarm

THE *America* paved the way for Big Ben's success. Thirty-four years ago it was the only Westclox alarm. It entered the field as the unknown product of an unknown maker and pushed to the front on sheer merit.

Bringing out other Westclox did not dim its success. *America* still tops the sales record. Trim, alert, honest, this clock laid down a policy which has stood the test of time. A policy all Westclox follow—quality.

We are proud of *America* and of the construction principle that *America* pioneered which stands back of Westclox success: needle-fine pivots of polished steel that reduce friction. *Westclox*, on the dial and tag is the mark of a faithful timekeeper.

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they are clean and glittering. Do not dry with a cloth. In the cold pack and oven methods the jars do not need to be sterilized, as they will sterilize during the canning process.

Preparing Fruit and Vegetables.—Select only firm fruit or vegetables in perfect condition. Over-ripe fruit becomes too soft. Fruit or vegetables from which decayed spots have been cut are likely to be already reeking with the very sources of spoiling which the cook is trying to get rid of. All vegetables are the better of being *blanched*. To do this put the product into a wire basket over which a piece of cheesecloth has been stretched and lower into a kettle of boiling water, leaving from 3 to 6 minutes, then take out and plunge into cold water; when cooled, drain. This will remove sliminess and any bacteria on the outside.

PROCESS.

Have the rubbers adjusted on the jars, and the tops ready in a kettle of hot water. Pack the fruit or vegetables into the jars; fill up with hot syrup or hot salty water as the case may be; put on the glass tops. If screw tops are used do not tighten the metal rings down; if spring tops are used do not tighten the bales. Place the jars on rack in boiler, which should have hot water to come almost to top of jars. Put on the boiler lid and boil for the length of time needed for the particular product that is being canned. When done remove, tighten the tops, invert until cool, so that if the seal is not perfect you can correct the fault before storing. Store in a cool, dark place.

SUGAR NOT NECESSARY WHEN CANNING.

Sugar is *not necessary* to make canned fruit keep. That is a somewhat comforting assertion this season, when sugar promises to be so "dear." The fruit may be "put down" perfectly well without it, and the sugar added when the product is needed next winter or spring, when, perhaps, it may be cheaper. If not corn syrup may be made to do duty, on a pinch; or, if one has bees, honey may be used,—it is nutritious as well as sweet. When canning without sugar it is only necessary to remember that every crevice of the jars must be filled up with liquid. For this reason juice must be created to fill up by stewing some of the product in a kettle, adding water if necessary. Keep this juice as strong as possible and use exactly as you would use sugar syrup. When storing the jars away wrap each in brown paper, then put in a cool, dry, dark place. Fruit put down without sugar is especially likely to lose its color if the light is permitted to reach it. The sterilizing should last from 20 to 30 minutes.

SYRUPS USED.

Since, however, both flavor and color seem somewhat better if sugar is used at time of canning, it is well to make a syrup if the expense can be afforded.

Thin Syrups.—Take 3 cups sugar and 2 of water. Just heat until sugar is dissolved. Use for apples, cherries, pears, or for fruits to which more sugar will be added before serving.

Medium Thin Syrup.—Make as above, but boil 4 minutes. Use for raspberries, peaches, blackberries, currants.

Medium Thick Syrup.—Boil the syrup until it will pile up a little over the edge of the spoon when it is tipped. Use for sour or acid fruits, e. g., gooseberries, plums, sour apples, and some of the delicately colored fruits, such as strawberries.

Thick Syrup.—Boil the syrup and water until it cannot be poured from the spoon. This is used for rich preserves.

CANNING THE EARLY FRUITS AND VEGETABLES.

Get the utensils ready. Place the berries, cherries, currants, etc., in a colander, and pour cold water over to rinse. Pack into the hot jars, pressing down a little with a big spoon. Dip the rubbers in hot water and adjust on jars. Pour the syrup needed (see above) to fill jars. Put tops of jars on loosely. Sterilize about 20 minutes in boiler. Tighten tops, invert to test. When cool store in a cool dark place.

Rhubarb.—Select tender stalks and leave the pink skin on. Pack in jars (you may hot-dip for a moment to remove some of the acid if you like), fill up with medium thin or medium thick syrup and sterilize 20 minutes.

Asparagus.—Blanch the asparagus, while tied in bundles (after removing woody ends) by putting in the wire basket and dipping in boiling water, the

tough ends for 4 minutes, the tips for 2 minutes. Plunge at once into cold water and drain. Cut the strings and pack in jars. Fill up with hot salty water. Sterilize for 1½ hours in boiler.

Greens.—All greens, such as dandelions, spinach, lamb's quarters, pigweed, beet tops and Swiss chard can be canned. Wash thoroughly, steam in a steamer or colander about 15 minutes, pack in jars without adding any water. Sterilize 2 hours. If the greens have sagged fill up from one of the jars before sealing. Enough salt to flavor may be sprinkled among the greens when steaming.

Special Recipe for Strawberries.—Prepare ripe, sound berries. To each quart of berries add half a pound of sugar and 2 tablespoons water. Boil slowly in an enamelled kettle for 15 minutes. Take off, cover, and let stand over night. Next day pack the berries in hot jars. Sterilize as usual in the boiler for 8 minutes.

Your Health.

BY "MEDICUS."

What to do till the Doctor Comes.

HEMORRHAGE.

Nose Bleed.—Nose bleed, unless severe, stops of its own accord. Avoid holding your head over a basin of water, because this position interferes with the return of the blood from the head, and this tends to increase the bleeding. It is better to lie on your side and hold your nose pinched together with your fingers. The bleeding spot is usually on the septum or partition between the two parts of the nose. . . . If this does not succeed, dilute ordinary peroxide (hydrogen peroxide) with 3 or 4 parts of water, soak some absorbent cotton and pack it into the nose. This will usually stop a very severe nose bleed.

Hemorrhage from an injury to an artery.—If the blood spurts, an artery is cut and you should apply a tourniquet between the bleeding point and the heart. A stout handkerchief or rope twisted tight around the limb will serve as a useful tourniquet.

Venous Hemorrhage.—If a vein is cut the blood wells up and causes a continuous flow of blood. In that case apply the tourniquet on the distal or far side of the hemorrhage. I only saw one case of bleeding of this kind. A stout old lady with varicose veins injured her shin, cutting a vein and causing a hemorrhage.

I remember a neighbor of ours, a carpenter, who was working with a board on his knee, and the chisel accidentally went through the board and cut his thigh. The sharp chisel severed the femoral artery and he died in a few minutes before the doctor got there. His life could have been saved if some one had taken anything, a towel, rope or anything, and twisted it tight with a stick around his thigh.

CUTS AND BRUISES.

Apply tincture of iodine (ordinary iodine) freely to the cut or bruise, and to the skin round about. Make it a dark yellow color. Apply clean, dry cloths, preferably recently ironed, and bandage. Don't wash it up nor apply carbolic acid or "healing ointments." Iodine is not poisonous when used on the raw flesh, like carbolic acid, and is decidedly superior to peroxide.

FRACTURES.

The only thing to avoid is changing a simple fracture into a compound fracture. In other words, don't allow the fragments of the bone to puncture the skin. Once the skin is broken, the patient's condition is much more serious. The end of the bone becomes infected with germs and then part of the bone dies and causes a running sore that may take months to heal. The best thing to do is apply a splint—a narrow board, a cane, an umbrella, anything that will prevent movement of the fragments—and bind the limb securely to your temporary splint. This will hold until the doctor comes and puts on splints properly. Of late years there is a tendency not to keep the limb in the splints the full six weeks, because of the danger of stiffness. At the end of 4 weeks the splints may be removed and massage rubbing may be used.

FAINING.

Whiskey is not needed. It may do actual harm. Neither is smelling salts of much value. Camphor rubbed on the forehead is pleasing to smell, but does not help the fainting any. The patient faints because there is not enough blood in the

brain and Nature away—that is her words, Nature makes then the blood has to the brain. So head. If he feels his head between actually fainted to raise his hips. Th to do. As soon as blood gets to the

CONV

If the baby has a boiler or tub of hot—a little warm—about 120 degrees—the unfortunate boiler with water, a small blanket; a blanket and grad water. Leave in then rub dry and cold cloths to the not caused by work child may be cutting convulsions, but the of the convulsions. very well that if convulsions your child fits practically all from the time they 6 months till they You know very well cover accidentally a tooth, and you indication that a ordinary had hap indicate that you baby properly. deficiency of calcium this anon.

Practical Hing Gar

BY WAR

PROBABLY many insect pests as there were New kinds are There are two kind haunt the garden classify them, the able to deal with the juices from the kind eats the leave ing insects are got poison on the pl upon. The su reached in this ma a contact spray. made into an emu smothers the insect

The standard arsenate of lead, v placed the old-time washed off by the arsenate will sti packages may be stores and the po the rate of six ou water.

To be candid, use of arsenate of seems safer to use ous, even though cents more. Th used only on my fr

THE MOST EFF

There are severa ket which may be form, and which, will not harm st They come in sm which have perfor dusters. When la chased, a duster a few minutes by of a coffee can full two-thirds to the and you will find apply the powder prietary remedies as Paris green, eve aid in preventing

Hellebore is a r be used to some ext it soon loses its being exposed to currant worms app bore is very useful spray, an ounce to or mixed with a on the leaves when The currant worm bottom of the plan that he may do a before he is discov is anticipated. H all his tribe, but two weeks later, s Perhaps more c

brain and Nature makes you "faint away"—that is her treatment. In other words, Nature makes you lie down and then the blood has no trouble in getting to the brain. So, lower the patient's head. If he feels faintish make him put his head between his knees. If he has actually fainted keep his head low and raise his hips. That is all that you need to do. As soon as a proper amount of blood gets to the brain he will recover.

CONVULSIONS.

If the baby has a convulsion put it in a boiler or tub of hot water—not too hot—a little warmer than body temperature—about 120 degrees F. Don't parboil the unfortunate kiddie. Half fill the boiler with water, and put over the boiler a small blanket; place the child on the blanket and gradually lower into the water. Leave in for 10 to 15 minutes, then rub dry and put to bed, applying cold cloths to the head. Convulsions are not caused by worms nor teething. The child may be cutting teeth and have convulsions, but the teeth are not the cause of the convulsions. You, mothers, know very well that if cutting teeth caused convulsions your children would be having fits practically all the time, off and on, from the time they get their first tooth at 6 months till they were 20 months old. You know very well that often you discover accidentally that the baby has cut a tooth, and you never had the slightest indication that anything out of the ordinary had happened. Convulsions indicate that you are not feeding your baby properly. Usually there is a deficiency of calcium or lime, but more of this anon.

Practical Hints on Fighting Garden Pests.

BY WARREN MASON.

PROBABLY there are ten times as many insect pests in American gardens as there were two generations ago. New kinds are continually appearing. There are two kinds of insect pests which haunt the garden and by being able to classify them, the garden maker is better able to deal with them. One kind sucks the juices from the plants, and the other kind eats the leaves. The latter or chewing insects are gotten rid of by spraying poison on the plants which they feed upon. The sucking insects are not reached in this manner and are killed by a contact spray. White or whale oil soap made into an emulsion is often used and smothers the insects by closing the pores. The standard poison nowadays is arsenate of lead, which has generally replaced the old-time Paris green, which is washed off by the first rain, while the arsenate will stick for weeks. Small packages may be purchased at the seed stores and the poison is usually used at the rate of six ounces to five gallons of water.

To be candid, though, I make little use of arsenate of lead in my garden. It seems safer to use remedies less dangerous, even though they may cost a few cents more. Therefore, this poison is used only on my fruit trees in early spring.

THE MOST EFFICACIOUS REMEDIES.

There are several mixtures on the market which may be used in liquid or dry form, and which, while fatal to insects, will not harm stock or human beings. They come in small packages, some of which have perforated covers to use as dusters. When larger quantities are purchased, a duster may be made at home in a few minutes by punching the bottom of a coffee can full of holes. Fill the can two-thirds to the top, put the cover on, and you will find it an easy matter to apply the powder. Some of these proprietary remedies are quite as efficacious as Paris green, even on potatoes, and also aid in preventing blight.

Hellebore is a mild poison which may be used to some extent, without danger, for it soon loses its virulent qualities after being exposed to the air. When the currant worms appear in the spring, hellebore is very useful. It may be used as a spray, an ounce to two gallons of water, or mixed with a little flour and dusted on the leaves when they are wet with dew. The currant worm begins its work at the bottom of the plants and eats upward, so that he may do a large amount of damage before he is discovered, unless his coming is anticipated. Hellebore will drive away all his tribe, but a second brood, some two weeks later, should be watched for. Perhaps more damage is done by the



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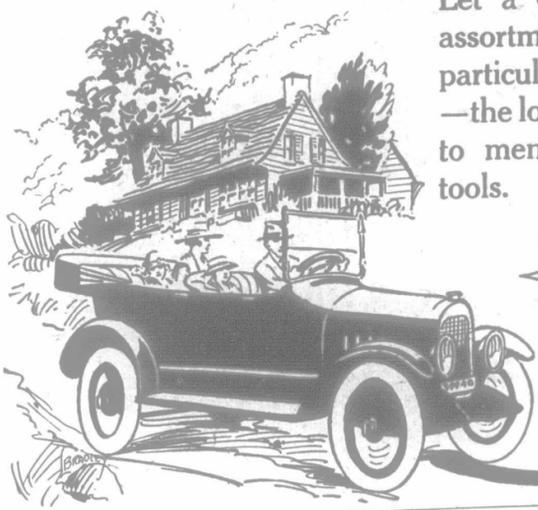
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701

aphids or plant lice than by any other garden pest. They are very tiny, but there are millions of them, and the rapidity with which they multiply is almost beyond calculation. Starting with a half dozen, there are thousands in a few weeks. Some are green, and some are red, and they are found alike on flowers, vegetables and trees. Often, however, they are not found until they have done much harm, for they spend their time on the under part of the leaves and suck out the sap. When you find the leaves of any plant curling up or turning yellow, start a search for lice. In times past, the regular remedy for these pests has been kerosene and the soap emulsions already mentioned and they are still largely used, but not by gardeners who have experimented with the various tobacco preparations now on the market. The emulsion is not easy to make, or pleasant to handle and it is a question

whether greasy substances are not injurious to the plants. In my garden the one remedy for lice is nicotine, which is exceedingly satisfactory. Black-Leaf, No. 40, is strong and highly effective. It is excellent for use on large places. Aphine is milder, but does the work. The one fault to be found with nicotine is that it comes only in bottles costing \$1.50, but one bottle will make gallons of spray and if several garden makers club together, there will be enough for all.

Probably the average amateur would vote the cutworm to be the most vexatious pest, for the reason that he lives underground and seems very hard to get at. The simplest way of circumventing this hidden plant destroyer is to give each plant a paper collar when it is set out. These collars are merely strips of stiff paper fastened at the ends with a toothpick. They should extend an inch or two below ground and two or three inches

above. Cutworms work at night and often may be killed if the gardener will take the trouble to go out in the evening with a lantern. Poisoned mashes are commonly used by market gardeners and farmers, but if the pests are very numerous, the amateur can do no better than to buy a bottle of vermine, a compound which is applied to well-cultivated ground around the plants and which is effective in ending the careers of cutworms, root lice, maggots, grubworms, and ants; it is used to rid lawns of the last named, which, if they do no other damage, build unsightly mounds.

Cabbage worms often seem difficult to dislodge, but spraying with white hellebore used at the rate of one ounce to three gallons of water will make them disappear in short order. It is not safe, though, to give one treatment and expect it to last all summer. Soot, salt and road ashes are simple remedies often



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used to control the cabbage worm and with some degree of success.

A FEW PREVENTIVE MEASURES.

As the striped cucumber beetle has a long season of activity, he is able to do considerable damage. Preventive measures are the most effective, cucumber and melon plants being covered with boxes having mosquito netting over the tops. Lice often cause serious loss to melon and cucumber growers. If nicotine is not to be had, soot from the kitchen range is said to be valuable for the control of this pest. I can not speak from personal experience, but soot has been found helpful in keeping cabbage worms away. The best way to get rid of the tomato worm is to pick him off. It is not a pleasant proceeding, but this pest is not often present in large numbers.

A capital remedy for the onion maggot, which is the larva of a fly, and often bores into the bulbs, is sand, soaked in kerosene, a cupful of kerosene to a bucketful of dry sand. A handful of the sand so treated should be placed at the base of each plant. Nitrate of soda, placed close to the plants, but not allowed to touch them, just before a rain, also helps. Plants which begin to wilt should be destroyed at once.

Many of the remedies to be used for garden pests are best applied by means of spray pumps, costing from seventy-five cents to several dollars. The cheapest, a tin push pump, will serve very well in a small garden, but if the garden is extensive, or if there are bushes and trees to spray, a larger apparatus is needed. Working the tin pump becomes, after fifteen or twenty minutes, a severe tax on the muscles of the arms. A bucket or a compressed air pump will prove easier to operate and is really needed in a large garden.

All this talk about garden enemies and the means by which they must be combated may sound discouraging to the amateur, but after all, he need not be alarmed. It may be that he will have almost no trouble, or that only one or two sorts of pests will prove numerous. At any rate, he should be prepared.—*Sel.*

**The Tale at the Tail of
the Season.**

Ten kinds of vegetables, looking very fine; Bugs got the 'taters, then there were nine.

Nine kinds of vegetables, growing nice and straight; Cutworms chewed tomatoes, then there were eight.

Eight kinds of vegetables, shooting straight to heaven; Aphides took the Lima beans, then there were seven.

Seven kinds of vegetables, climbing on their sticks; Worms in the radishes, then there were six.

Six kinds of vegetables, looking quite alive; Fungus hit the lettuce, then there were five.

Five kinds of vegetables, growing more and more; Drought killed the pea vines, then there were four.

Four kinds of vegetables, very good to see; Rain drowned the corn out, then there were three.

Three kinds of vegetables, enough for me and you; Someone stole the onions, then there were two.

Two kinds of vegetables, protected by a gun; Cabbage worm got in his work, then there was one.

One lonely vegetable, ripening its seed; Along came an expert, and said it was a weed.

—Author Unknown.

Ducks are among the greatest enemies of mosquitoes, as they delight in eating the larvae floating on the top of any stagnant pond or inlet. If there is a pond or stream near your house put ducks on it.

The Ingle Nook

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

A Trip to Fairyland.

RIGHT in blossom time we took the trip, arriving finally in the very midst of the Ontario blossom-district of districts, the region lying between Hamilton and Niagara Falls. At the top of the hill above Grimsby we stopped and looked back. Truly it was fairyland.—Farm after farm, mile after mile of white and pink—the coloring of the old-fashioned "painted lady" sweet peas, but lying in ribands miles long! Late plum and cherry blossoms, early apple blossoms, peach blossoms—with a gray-blue sky above, the green hills for a background, and the sweet evanescent perfume wafted on the breeze! Nor was all the beauty wasted on the desert air. For miles the road was black with automobiles carrying people who had come "to see the blossoms." Talk about cherry blossom fêtes in Japan!—The Canadians, too, know how to value, for beauty's sake, the supremely beautiful.

Everywhere in this district, we observed, the orchards were cultivated, usually right up to the trunks of the trees, not a blade of grass or tuft of weeds left in a whole orchard. . . . After leaving the district we seemed to take extra notice of other orchards, and, in a journey of some 200 miles found one fact very patent: Wherever there was a "shiftless" looking plot of trees that looked rapidly "going to the dogs," the ground beneath was not worked up. Wherever there was one in good condition, trim and sturdy, and evidently a profit-making concern either for the sale or home consumption of fruit, the ground was cultivated bare just as those in the Grimsby district had been. Doubtless, in many places, the fall would see a cover crop on many of these plots,—a protection, where necessary, against the rigors of winter.

People speak truly who say that the great Falls "grow upon one." Never before had it seemed to us so magnificent or so powerful—notwithstanding the talk of the water diverted for power purposes. You remember (we quoted the passages from her book in these pages last winter) how disappointed Mrs. Jameson was when she first saw the great cataract, but how fascinated with it she became when she visited the spot in the following June. I thought of her when I stood near Table Rock a fortnight ago, and wondered just at what spot near it had been the little "bosquet" where she used to sit with her book so long ago, now reading, now looking up the gleaming river or at the rising spray, now dreaming over her chequered life. How real to us she still seems! For that is the power of the real genius with words; she can never die to those who come after, for her personality lives on as long as the printed word stands on the page.

I wonder how many people there are in Ontario who have not yet seen Niagara Falls. Or how many there are who wish to see wonderful things abroad, quite forgetting that one of the most wonderful spots in the world is, comparatively, almost at their doorsteps.

It would be splendid to see the place in autumn, but I think the best time of all to make the trip is in blossom time. Plan for it, won't you? And if you go be sure to read up a bit of history in preparation. Read Parkman's "Discoverers of the Great West," and the later histories in which are told the stories of the War of 1812-13-14 and the Rebellion of 1837. Then when you go to Niagara you will think of La Salle and Father Hennepin, and you will want to wander about all along the Niagara River district, visualizing for yourself those old days. You will stop on the way to see the monument that marks the place where the Battle of Stoney Creek was fought, on June 4th, 1813, and you will go over to Brock's monument and see the very spot where Gen. Sir Isaac Brock, with his little force of 1,500 men (some Indians) repulsed the 6,000 Americans who came pouring over the river upon that eventful 13th of October 1812. Nor will you be less interested in the little

graveyard on the with its monur commemorate the July 25th, 1814. over then, but i are the graves o soldiers, side by s monument erected Canadian soldier born fight, is a which, in gold he has expressed her of her lads who al fight.

We wandered al stones there, tryi tions now almost and snow and ha perhaps we were in the monument memory of Lau Canadian girl wh walked 20 miles Beaver Dams to there stationed, t that the America prise attack upon enabled the little but to compel th attack to surre Laura Secord su Very life-like it young woman waving hair. B scription is weari Unless soon re- illegible.

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graveyard on the hill at Lundy's Lane, with its monument placed there to commemorate the battle fought there on July 25th, 1814. The long war was nearly over then, but in the little churchyard are the graves of British and American soldiers, side by side. Very near the tall monument erected to the memory of the Canadian soldiers who fell in that stubborn fight, is another, a lower one upon which, in gold lettering, the United States has expressed her tribute to the memory of her lads who also fell in the thick of the fight.

We wandered about among the old tombstones there, trying to read the inscriptions now almost obliterated by the rain and snow and hail of the long years, and perhaps we were interested, most of all, in the monument erected, in 1901, to the memory of Laura Secord, the brave Canadian girl who in the summer of 1813 walked 20 miles through the woods to Beaver Dams to warn the few soldiers there stationed, under Lieut. Fitzgibbon, that the Americans were planning a surprise attack upon them, a warning which enabled the little force, not only to resist, but to compel the 600 men who made the attack to surrender. A bronze bust of Laura Secord surmounts the monument. Very life-like it is, showing a comely young woman with smiling face and waving hair. But already the long inscription is wearing off the granite below. Unless soon re-cut, it will be entirely illegible.

It seems strange, now, to think that Canada and the United States were ever at war. Henceforth may the hatchet be buried deep indeed, and the handclasp from border to border grow firm in friendship, as the grand old flag of Britain and the beautiful stars and stripes of the United States float side by side in amity.

Now to a different subject. Have you seen the plan the summer cottage folk have adopted for saving table laundry during the summer? If not here it is: They cover the dining table with nice white oilcloth, then, to make it look more inviting put on a centrepiece and a doily of "sanitas" for each plate. These sanitas sets cost about \$2.75, and are made of a fine white oilcloth material decorated with blue, or brown, or green. They are very pretty, and when soiled need only to be rubbed off with a wet rag.

In these days, when linen is such a price that it is almost prohibitive, the idea is economical in regard to money as well as the work of laundering. It seems to me that it would be a good one for the farm kitchen as well as the summer cottage. If you don't like the sanitas you can make doilies to suit yourself, or you can buy Japanese runners in blue and white which are very pretty and dainty, and much easier to wash and iron than a whole table-cloth. JONIA.

Worth Thinking Over.

"If the key to the puzzle of this distracted world can be said to rest in any single fact, most people would agree that it is to be found in the relations of the British Commonwealth and the American Commonwealth."—A. G. Gardiner.

"We've made a fierce mistake, but I swear I'll twist it into a step up."—Caption on a Movie Screen.

An Iceless Refrigerator.

It will come as a surprise to many housekeepers to learn that ice, however desirable as a luxury, is by no means a necessity for preserving food in a fairly good condition in warm weather. Experienced campers know how to get along without it very well. They have several methods of constructing these "coolers." One of the easiest to make is fashioned from a peach crate, but any box of open-frame construction with slats for sides instead of solid boards will do. Still better is a box made for the purpose, with three sides of wire netting and the fourth occupied by a screen door. The shelves should be very solid, and their efficiency will be greater if they are made of heavy netting over zinc. Cover the four sides entirely with canton flannel, smooth side out, buttoning it closely to the frame. This may be done by sewing buttons firmly to tape which is tacked to the frame. Buttonholes to suit are then made in the canton flannel, which can thus be removed frequently to

Home Preserving The New Way - The Sure Way

Preserving difficulties are often due to using sugar alone. But now you can always count on clear jams and jellies—you can be assured that they will not get tough or "candied" in the glass.

No more disappointments or waste of expensive materials the new way. Even beginners are assured of success.

Instead of all sugar, use

1/2 Sugar and 1/2 LILY WHITE SYRUP

Sugar isn't going to be any more plentiful or cheaper for a long time. And you only need half as much sugar the LILY WHITE way. There's going to be a big demand for LILY WHITE Syrup this year. Don't wait for your grocer to get sold out. You can get all you need to-day at to-day's price.

We suggest that you anticipate your requirements. Buy a dozen tins now!

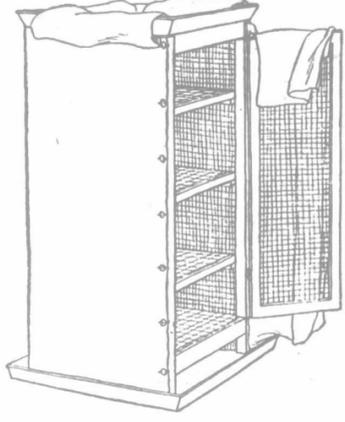
FREE Book on Preserving

Even beginners can be sure of success by following the preserving suggestions in the new booklet prepared for LILY WHITE users. Next winter, when preserves are sky-high and scarce, think of neat rows of homemade preserves bearing witness to your happy foresight. Write to-day. The book is FREE.



The CANADA STARCH COMPANY, LIMITED, MONTREAL

be washed. Tape with buttons should also be tacked to the framework of the door. Allow a flap of flannel to extend past the outer edge of the door to be buttoned over on the framework. It will, of course, be necessary to unbutton and button this flap when opening and closing the door. . . . Around the top of the covering sew 4 flaps of canton flannel a little narrower than each side of the case and large enough to extend up over the top and dip into a pan of water set on top. These will serve as wicks to carry the water downward and keep the entire



AN ICELESS REFRIGERATOR Any handy person can make one.

surface of the flannel moist. Place a large pan under the refrigerator to catch the water that drips down. The principle upon which the refrigerator works is the coolness induced by evaporation, hence it will be effective if placed wherever the cloth will dry readily in the shade, preferably a place out of doors where the breezes can get about it unimpeded. If placed on the porch a pan must be placed beneath to catch the water that drips down. Be sure to use non-rusting wire netting for the screening, if wire is used. The canton flannel over slats, however, works very well, but the contrivance is not so neat and tidy as that made with the netting; also the slats impede circulation of the air somewhat. With a refrigerator such as this, placed in a good position, a temperature of about 55 degrees F. can be maintained. A handy size for the contrivance is that given by the Dept. of Agriculture of Cornell University. Height—4 ft. 8 in. Base—24 in. square. Space between shelves—11 inches.

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ESTABLISHED in 1817 with modest capital, the Bank of Montreal for over a hundred years has followed a conservative, aggressive policy, until today it has assets in excess of FIVE HUNDRED MILLION DOLLARS

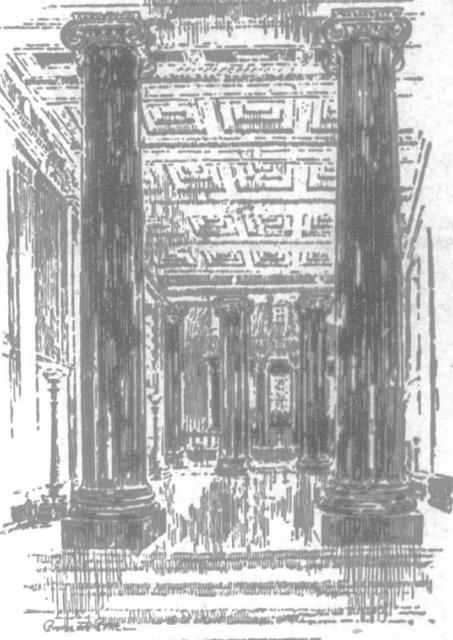
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A steadily increasing number of business men, enterprises, workers and householders, ambitious young people—thrifty Canadians of every sort, everywhere—are getting the benefit of the strength and intimate service of this financial institution.

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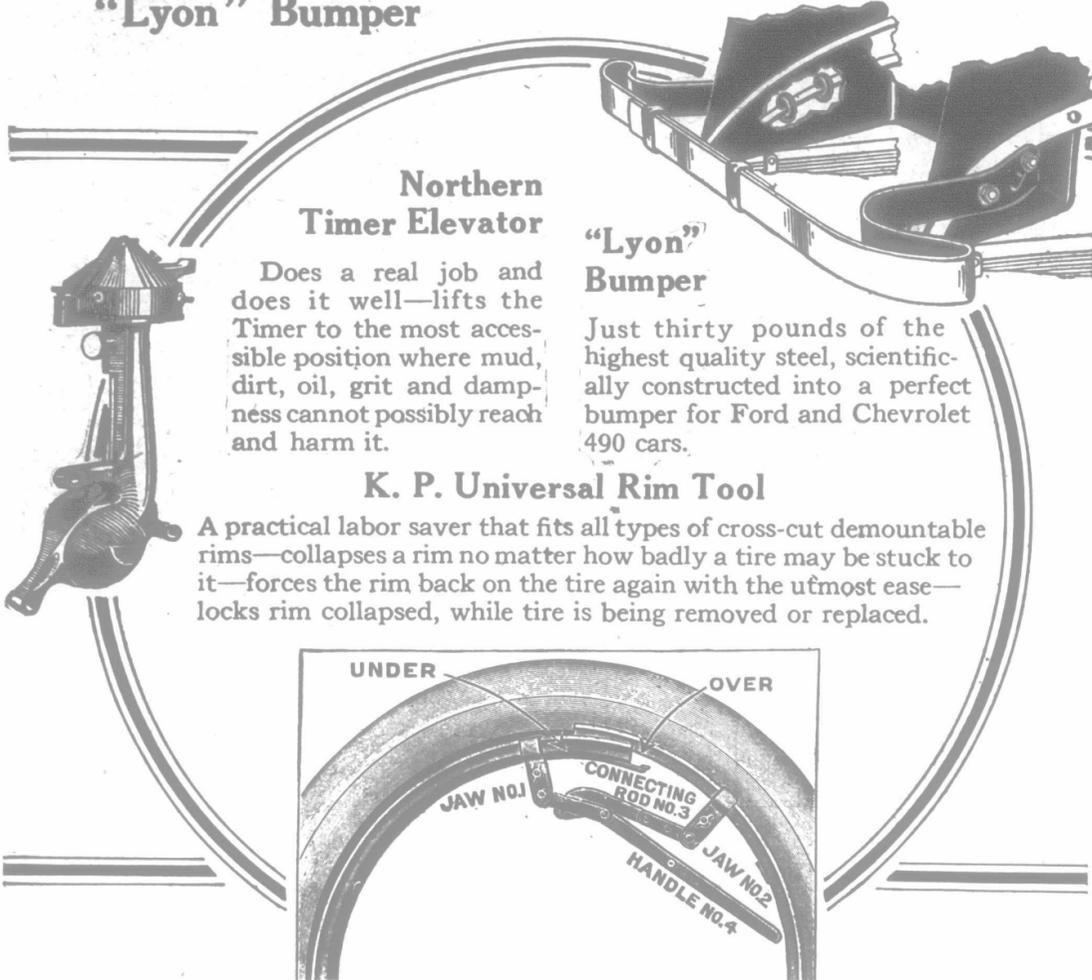
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Northern Timer Elevator
"Lyon" Bumper

Three devices of real utility giving tangible daily evidence of a wise investment



Northern Timer Elevator

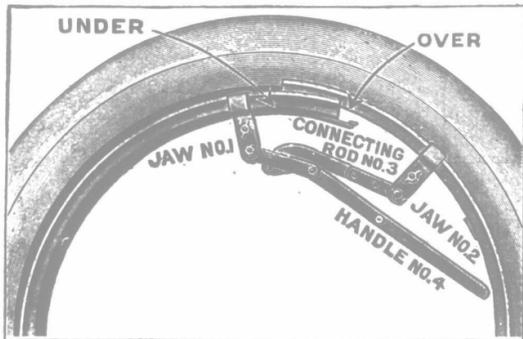
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"Lyon" Bumper

Just thirty pounds of the highest quality steel, scientifically constructed into a perfect bumper for Ford and Chevrolet 490 cars.

K. P. Universal Rim Tool

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FOR ROOFING AND SIDING

We manufacture these Sheets both in Galvanized and Painted Steel, in lengths of 4, 6, 8 and 10 feet.

WE ALSO MANUFACTURE

"GALT" STEEL SHINGLES, VENTILATORS
 ORNAMENTAL EMBOSSED STEEL CEILINGS, ETC.

The Galt Art Metal Co., Limited, Galt, Ont.

Materials:
 3 yds. 24-inch opal zinc screen wire.
 50 ft. of board 3/4x3 inches for frame and door.
 16 ft. of board 1x12 in. for 4 shelves.
 4 ft. of board 1x24 in. for top and bottom.
 2 hinges.
 1 cabinet catch.
 2 3/4 doz. white china buttons.
 10 yds. white cotton tape.
 13 yds. 30-inch canton flannel (two covers).
 Nails and tacks.
 To this may be added, if one wants to make a "good job," 46 ft. of screen moulding, 1 pint flat coat white paint, 1 pint white enamel paint for second coat.

For Strawberry and Cherry Time.

Strawberry Cake.—Make a light layer cake. Bake in two layers and split each when done. Pile the four layers one on top of the other with strawberries mashed with sugar between, and on top. Let stand about twenty minutes then cover with whipped cream and serve. Cream will usually whip in summer if fully 24 hours old and kept on ice or in a cold place.

Strawberry Cream.—Soak 1/2 box gelatine in 1/2 cup cold water. When soft dissolve in 1/2 cup boiling water then strain through a flannel bag. Mash a quart of strawberries, sweeten, add to the gelatine water, also juice of a lemon. Next add a pint of whipped cream. Let stand in a cold place until set.

Iced Cherries.—Stone the cherries, chill them on ice, and serve in a pretty glass dish with plenty of sugar. A few cherry leaves stuck in with raw cherries, or strawberry leaves with raw berries improves the appearance of the dish.

Strawberry Batter Pudding.—One pint flour, 2 teaspoons baking-powder, 1/2 teaspoon salt, 1 quart berries, sweet milk, sugar. Stir the flour, salt, and powder together, and add enough milk to make a batter. Put the batter by spoonfuls into 6 buttered cups, with layers of berries and sugar between. Set cups in a steamer and cook over boiling water for half an hour. Serve with strawberry sauce or cream and sugar.

Strawberry Trifle.—Use fresh or stale sponge or layer cake. Cut it in slices and line a glass dish with it. Put a layer of crushed and sweetened berries in, then a layer of cake, and so on until the dish is full. Cover the top with halved berries and pour over all whipped cream or boiled custard.

Spiced Cherries.—Boil 1 1/2 pints cider vinegar with 1 oz. stick cinnamon and 1 oz. cloves each tied in a bag. Add 4 1/2 lbs. sugar and boil 10 minutes more, skimming well. Put in 7 lbs. stoned cherries and cook gently for half an hour. Lift out the fruit and boil down the syrup until it is thick. Put the cherries in jars and keep hot until you add the syrup, then seal. Very nice with cold meats.

Cherry Belly.—Butter a deep baking dish and cover the bottom with a layer of stoned cherries. Sprinkle with sugar, nutmeg, and cocoanut. Now put on a layer of breadcrumbs, and continue in alternate layers until the dish is full, the top layer being crumbs. Cover and bake in the oven 1 hour, then uncover and brown quickly. Serve with cream and sugar.

Cherry Roll.—Make a good biscuit dough and roll into a large sheet. Cover with cherries, seeded and stoned, and sprinkle with sugar, wet the edges and sprinkle with a very little flour. Roll the sheet over and over, very carefully to retain the cherries. Press the edges together, place in a greased pan and bake, basting frequently with the sweetened juice of the cherries which has been kept in a bowl. Serve hot with sauce or whipped cream.

What to do With Oatmeal.

Since "Medicus," a specialist in dietetics, tells us oatmeal is not "heating" in summer, also that it is a good food to prevent hardening of the arteries, we feel quite justified in giving some recipes for cooking it, even at the beginning of the hot weather season.

Oatmeal Porridge.—Oatmeal, to be either palatable or digestible, must be well cooked. If you have a fireless cooker, which will keep it actually cooking for several hours without wasting fuel,

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 oatmeal porridge
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 cooking teacher
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 for 3 or 4 hours.
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 in a few minutes

Porridge Cakes.—
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 cut in rounds
 Serve with hot b

Oat Cakes.—2
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 teasp. soda disso
 water. Mix dr
 then rub in the
 the liquid. Do
 with butter.

Cinnamon Oat
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 brown sugar, 2
 milk, 1 teasp. c
 soda, 1 teasp.
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Oatmeal Maca
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 Add 2 egg yolks
 add 2 1/2 cups o
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 inches between.
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Oatmeal Drop
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 soda, 2 cups rolle
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 Put in spoonfuls
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Succe

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 Be careful not
 the roots.

that will be the very place for making the oatmeal porridge. If you have not a fireless cooker, the best thing to do, a cooking teacher assures us, is to cook it the day before, so as to be sure to allow time enough. To 1 cup of rolled oats allow 1/2 teasp. salt and 2 cups boiling water. Pour the water directly upon the cereal in the top of the double boiler, and let boil for 5 minutes as fast as possible. Then place the cover on the boiler and let the cereal steam on the back of the range, or with the oil-stove turned low, for 3 or 4 hours. Do not stir it while it is cooking—to avoid pastiness. Reheat for breakfast and serve with creamy milk and sugar. For variety cook a few raisins or chopped nuts in the porridge. also, you may find it advisable to add some bran to it. Bran, by increasing the "roughage" in the food, helps to prevent constipation. Also, as "Medicus" has told us, it is rich in vitamins.

A "cooked" oatmeal that can be boiled in a few minutes is now on the market.

Porridge Cakes.—One egg beaten, 1 cup sweet milk, 1 cup cold oatmeal porridge, 1/2 teasp. soda, 1 1/2 cups flour. Roll thin, cut in rounds or squares and bake. Serve with hot butter.

Oat Cakes.—2 1/2 cups flour, 2 1/2 cups oatmeal, 1 cup sugar, 1 cup butter, 1 teasp. soda dissolved in 1/2 cup lukewarm water. Mix dry ingredients together, then rub in the shortening and last of all the liquid. Do not roll too thin. Serve with butter.

Cinnamon Oat Cakes.—2 1/2 cups oatmeal, 2 1/2 cups flour, 1 cup butter, 1 cup brown sugar, 2 eggs, 2 tablesp. sweet milk, 1 teasp. cream of tartar, 1 teasp. soda, 1 teasp. cinnamon. Mix the powders with the flour. Beat the eggs and milk and work in last of all. Roll thin.

Oatmeal Macaroons.—Cream together 1 cup gran. sugar and 1 tablesp. butter. Add 2 egg yolks and beat well. Next add 2 1/2 cups oatmeal well mixed with 2 1/2 level teasp. baking-powder. Add a teasp. vanilla and a pinch of salt. Stir well, then add the well-beaten whites of the eggs. Drop with a teaspoon, making balls the size of English walnuts, on a buttered pan, leaving spaces about 3 inches between. Bake in a moderate oven and remove from pan while hot.

Oatmeal Drop Cakes.—1 1/2 cups shortening (half butter and half lard is good), 2 cups brown sugar, 2 eggs, 1 teasp. soda, 2 cups rolled oats, 3/4 cup sour milk. Rub sugar and shortening together, next add beaten eggs, then the soda mixed with the sour milk, and last of all, as quickly as possible, the oatmeal. Let stand for 2 hours, then stir in 2 cups flour. Put in spoonfuls on a greased pan, leaving plenty of space between.

The Scrap Bag.

Liquid Manure.

In some inconspicuous place in the garden sink a half barrel and fill it with water. Put in about a bushel of fresh cow manure. Stir vigorously, then cover the barrel and let stand 3 days. Use the liquid to pour on the soil about lettuce and other vegetables that are the better of quick growing, or that are in any part of the garden where the soil is poor.

Give Dogs Drink.

Be sure that the dog has plenty of clean, cold water to drink every day. If his dish is clean he will appreciate it as his sense of smell is so keen. Dogs often become ill in hot weather simply because they have not had enough water to drink. Don't fly to the conclusion that Collie is going "mad" if he becomes ill. In the first stages distemper resembles a cold. Later it develops into a resemblance to pneumonia and typhoid. Collie saves you many steps. Get veterinary advice for him if he becomes ill. If you are even fairly good to him he would go through any privation for you.

Succession of Crops.

Sow lettuce and radishes at intervals of two weeks. Some carrot and beet seed sown in June will give young, tender vegetables for use in fall. When the early potatoes are taken up, use the ground for celery, Brussels sprouts and kale.

Stir the Ground.

Constant cultivation keeps the garden stuff growing. Use the wheel hoe if you have one; if not use the hand cultivator or resort to shallow hoeing. Be careful not to go deep enough to harm the roots.

Current Events

The U. F. O. in Middlesex Co., Ont. has proclaimed every Wednesday afternoon a holiday in that county.

Heavy forest fires have been raging during the past week near Cobalt, Northern Ontario, and in Newfoundland.

Mr. Chas. Camsell, of the Dominion Geological Bureau, Vancouver, has received the appointment of Deputy Minister of Mines. Hon. Arthur Meighen is Minister of Mines.

Mr. J. J. McNevin, of Reaboro, Ont., was nominated to oppose Sir Sam Hughes in the Haliburton and Victoria election.

George F. Skinner, of St. John has been selected as Rhodes Scholar for New Brunswick.

Yielding to demands from all over the country, Sir Henry Drayton, on June 9th, introduced a practically new Budget into the House of Commons. His proposal now is to levy a 15 per cent. tax on the excess retail cost over the limiting prices named, instead of on the total cost as in the original Budget. Ordinary clothing, shoes, furs and other necessities will come under this. To make up the revenue that will be lost by the modifications, a tax of 15 per cent. will be levied on costly furniture and china. The modifications of the new taxes will go into effect immediately following the passing of each resolution incorporating them.

The Canadian Board of Commerce declares that there has been flagrant profiteering in sugar.

By Order in Council the Dominion Government has consented to grant Stefansson, the explorer, a grazing permit for 30 years for reindeer and other animals on a strip of land in the southern portion of Baffin Island.

An Order in Council has been passed in Ottawa providing for the distribution of \$200,000 among the nine provinces to assist them in combatting venereal diseases.

The liquor referendum for Ontario will be held on Monday, Oct. 25th. An effort will be made to have all the Provincial referenda requested held on the same day. So far Ontario, Alberta and Saskatchewan have asked for a referendum.

Warren G. Harding, of Ohio, has been chosen by the Republican party, at the Chicago Convention, as candidate for the Presidency of the United States.

The Democratic Convention is to be held in San Francisco, where votes will be taken on McAdoo, (probably the most outstanding) President Wilson, Bryan, Governor Edwards of New Jersey and others. Between Wilson and Bryan the League will be the chief issue; between Bryan and Edwards the prohibition question, Bryan contending for a bone-dry country, while Edwards holds for "personal liberty."

Sugar rationing will begin in the United States after June 21st.

Bishop John H. Vincent, (Meth.) founder of the Chautauqua movement which, at first confined to the church, has developed into a general educational propaganda, died on May 10th at the age of eighty.

Two cases of bubonic plague have been discovered in the Republic of Salvador. This plague is spread rapidly by rats.

British warships, on June 4th, opened fire on Kemal Pasha's Nationalist positions near Toulza, on the Sea of Marmora. The collapse of the Sultan's troops leaves the British alone to defend the railway opposite Constantinople.

The British Labor Delegation to Russia urges removal of the embargo and resumption of trade with Russia. They say the only terror now in Russia is hunger.

British residents in China are pro-



Test the soothing action of the Empire teat cups

VISIT some farm or dairy near you where they are using Empires. If you don't happen to know of one, write us and we'll direct you. Ask the man to let you test the action of the teat cup. Put your thumb in it. Then you'll understand why cows like the Empire—why there is no possibility of teat or udder trouble—why they let down easily and give more milk and act so contented when the Empire is at work.

The Empire Teat Cup massages the teat from tip to udder—an exclusive Empire feature—and one absolutely essential if cows are to be kept in perfect condition.

The action of the Empire Teat Cups is only one of the superior features of the Empire, but the more you examine the machine and talk with users the more convinced you'll be that the Empire is the machine for you. If you're milking 10 or more cows you should read our catalog 13. Write for it today.

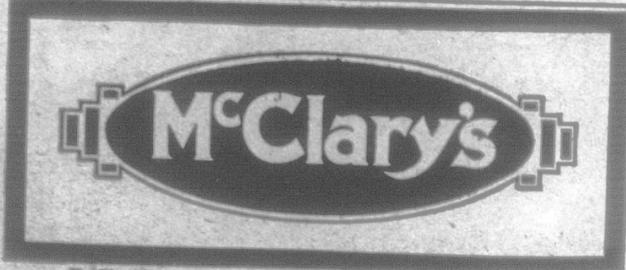
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*Make good stoves and
Cooking utensils.*

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with The Merchants Bank, and pay all bills by cheque. By depositing a regular sum in a Savings Account, you know exactly how much is spent on the different branches of housekeeping.

When you settle by cheque, you avoid all disputes as to payment, as the cancelled cheques are receipts and prove the payments.

This business-like method of home finance often prevents paying the same bill twice.

Savings Accounts may be opened in sums from \$1 up, on which interest is allowed.

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With its 138 Branches in Ontario, 44 Branches in Quebec, 1 Branch in New Brunswick, 2 Branches in Nova Scotia, 36 Branches in Manitoba, 46 Branches in Saskatchewan, 86 Branches in Alberta, and 12 Branches in British Columbia, serves rural Canada most effectively.
WRITE OR CALL AT NEAREST BRANCH.



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THE FULL STRENGTH
Ammonia

LAWTASON'S
Snowflake
Ammonia
Saves 90 Per Cent Soap
For Household and
Disinfecting Purposes
S. F. Lawtason & Co.
LONDON, ONT.

MAKES
HARD WATER
SOFT

A spoonful to a
pail of water

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at four 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 advertisement inserted for less than 60 cents.

AT GREATLY REDUCED PRICES FOR remainder of season, White Leghorn baby chicks. Write today. Bradley Linscott, "Seven Acres" Brantford.

BABY CHICKS, HATCHING EGGS—BARRED Rocks, White Rocks, White Wyandottes, Silver Wyandottes, White Leghorns, Rhode Island Reds. Incubator capacity 9,000. Satisfaction guaranteed. Write for price-list. Tay Poultry Farm, Perth, Ont., Box 244.

BARRED ROCKS, MAMMOTH SIZE, AND extra good laying strain. Eggs—\$2 for 15; \$3.50 for 30. Mrs. W. B. Annesser, Tilbury, Ont.

CHOICE COLLIE PUPS, SCOTCH, FROM extra good cattle dog. Write J. A. Campbell Glenworth, Ontario.

EGGS—WHITE AFRICAN GUINEA—MUS- COVEY duck, and Barred Rock. Mrs. John Annesser, Tilbury, Ont.

PURE-BRED BLACK LANGSHAN HENS, \$5 up. Send for free booklet. Glenloch Farm, Office: 243 Venice St., Toronto.

SUPERIOR BARRED PLYMOUTH ROCK EGGS FOR SALE

From Five Best Bred-to-Lay Families in Both Countries.

Pen No. 1.—Thompson's Imperial Ringlet hens, imported in the eggs, headed by Mr. Coldham's (Kingston, Ont.), Pedigreed Ringlet Cockerels, sired by Parks' prize bird, U. S. A., first dam—hen No. 71 laid 70 eggs in 72 days in midwinter, 260 brown eggs of standard weight in one year. Price, \$5.00.

Pen No. 2.—Parks' Superior Ringlet strain, imported in the eggs. Of all bred-to-lays, Ringlets are supreme. Price, \$5.00.

Pen No. 3.—The large, dark bred-to-lay strain of Rileys, imported in the eggs. As show birds, they have won the highest awards in U. S. A. Price, \$4.00.

Pen No. 4.—Thompson's large bred-to-lay strain, imported in the eggs, medium light in color, with quality and utility. Price, \$3.00.

Pen No. 5.—The O.A.C. bred-to-lay strain of Guelph; a hardy, handsome fowl, extra good winter layers. Price, \$2.00.

Fifteen per setting. Infertile eggs replaced at half price. Pullets or cockerel-bred eggs, as desired. Express prepaid.

A. H. CROZIER, Box 16, Meadowvale, Ont.

Eggs and Poultry Wanted

We have a big demand for eggs and require large quantities, and pay the top market price every day in the week. We also have a big demand for live poultry, especially heavy live hens. We are paying special prices for May and June. It will pay you to sell to

C. A. MANN & CO.
Phone 1577 78 King St., London, Ont.

testing against the renewal of the Anglo-Japanese treaty.

The German elections began on June 6th. Ebert's Government has been sustained by a slight majority, and Pres. Ebert has asked Chancellor Mueller to form a Cabinet.

The Bolsheviki have been worsted by the Poles along the whole front between the Dnieper and Dniester Rivers.

It is now said that the Spa Conference between Allied and German statesmen will not take place.

Hope's Quiet Hour.

Welcome the King.

When Jesus came to the place, He looked up, and saw him, and said unto him, Zacchaeus, make haste, and come down; for to-day I must abide at thy house. And he made haste, and came down, and received Him joyfully. . . . And Jesus said unto him, This day is salvation come to this house.—S. Luke 19: 5, 6, 9.

In that beautiful love-song, "The Song of Solomon," there is one sad incident. The bridegroom says tenderly:

"Open to me, my sister, my love, my dove, my undefiled:
For my head is filled with dew,
My locks with the drops of night."

(We think of that well-known picture "The Light of the World," showing the thorn-crowned Saviour knocking at a closed door.)

The bride in the Song hears the knocking and recognizes the voice of her King; but instead of eagerly welcoming him, she makes trivial excuses for her slothful delay.

"I have put off my coat; how shall I put it on?
I have washed my feet; how shall I defile them?"

When the King is not admitted he does not go away in anger, but puts in his hand by the hole of the door.

The bride's heart is moved for him and she forgets the excuses she has offered. She knows that without the Bridgegroom she will be desolate and widowed. And she says:

"I rose up to open to my beloved;
And my hands dropped with myrrh,
And my fingers with liquid myrrh,
Upon the handles of the bolt.
I opened to my beloved;
But my beloved had turned away, and was gone.
My soul had failed me when he spake:
I sought him, but I could not find him;
I called him, but he gave me no answer."

She goes on to tell how she sought her beloved through the midnight streets, and was wounded, insulted and robbed by the watchman, the keepers of the walls—officers of the King, who should have helped her. Then she finds more sympathetic people to listen to her story, and appeals confidently to the women of Jerusalem to tell her beloved that she loves him. When they, seeing her loneliness and her distress, ask wonderingly:

"What is thy beloved more than another beloved?" she answers with an eager description of his perfections. He is "the chiefest among ten thousand. . . . His aspect is like Lebanon, excellent as the cedars. His speech is most sweet: Yea, he is altogether lovely," she declares confidently. "His head is as the most fine gold. . . his lips are as lilies, dropping liquid myrrh."

Her eager search rouses the other women to seek with her; and, when the bride has to direct others, she recollects the tastes of her beloved. He loves to feed his flock among the lilies—and there, in the gardens of spices of purity, she finds joy at last. There is exultant gladness in her heart as she says,

"I am my beloved's, and my beloved is mine."

All this is the language of poetry, and poets in every age of the Christian era

have found that their hands dropped with myrrh" as they wrote of Him whose Name is above every name. All kinds of people are won by the perfect life of Jesus Christ. His Name is as ointment poured forth, and it is interesting to note that the familiar hymn (which has expressed the feelings of millions of Christians during the last hundred years—"How sweet the Name of JESUS sounds"—was written by a man who composed his own epitaph as follows:

"John Newton, Clerk,
Once an infidel and libertine,
A servant of slaves in Africa,
Was by the rich mercy of our Lord and Saviour Jesus Christ,
Preserved, restored, pardoned,
And appointed to preach the Faith
He had long laboured to destroy."

And so we leave the language of poetry and come back to our text. Zacchaeus was a despised "sinner," but—like other sinners—he wanted to have at least a glimpse of the Friend of sinners. And so he placed himself in the way of Christ, climbing into a tree so that he might see,—for he was little of stature. He gained far more than he had hoped, for the Royal Guest, who was passing through Jericho, did not scorn the publican,—as other respectable people did,—but openly acknowledged him as His host.

No wonder Zacchaeus made haste, and came down, and received Him joyfully, when the King of all the earth announced: "To-day I must abide at thy house."

A few days ago I had the pleasure of hearing Canon F. G. Scott speak,—and the pleasure of seeing him, too. When he was introduced to the audience as the "idol of the soldiers," and was welcomed with a tremendous outburst of clapping, he looked pleased but overwhelmed. No one could see and hear him without knowing that the secret spring, which flows out from his heart in a river of love and purity, is personal devotion to his Lord and Master, Jesus Christ.

Long before the War brought him world-wide fame and honor, I had copied and memorized a beautiful prayer of his. The words ring true, even as sincerity shines out in the face of the writer. Will you make Canon Scott's prayer your own? Here it is:

"Thy glory alone, O GOD, be the end of all that I say;
Let it shine in every deed, let it kindle the prayers I pray;
Let it burn in my innermost soul, till the shadow of self pass away,
And the light of Thy glory, O GOD, be unveiled in the dawning of day."

I once asked a soldier if he knew Canon Scott's hymn,

"Cast thy care on JESUS,
Make Him now thy Friend,
Tell Him all thy troubles,
Trust Him to the end."

He wrote back that he did not know the hymn but he knew Canon Scott, and his praise of the man was enthusiastic.

The truth is that the soldiers, like other people, are soul-hungry. They need and they want a perfect Leader, a King Who knows and loves them individually. Like the women of Jerusalem, they are ready to seek "the Chiefest among ten thousand", if they can be sure that His professed servant really knows the Master and is honestly trying to live a Christ-like life. They hate shams! Don't you? They are ready to suspect "cant" in religious talk,—but no one could distrust the happy face and words of Canon Scott. Like His Master he "feedeth among the lilies"—the power of his life witnesses to the purity of his food. Those who read degrading books, or take pleasure in low and degrading conversation, lose power as Samson did in the house of Delilah. He (Samson) "wist not that the Lord was departed from him," until he tried self-confidently to shake himself free of his enemies. He had chosen evil too long, and he had to seek God in pain, sorrow and deepest penitance before the lost strength was restored.

When the King offers to abide in your soul you may, like the publican of Jericho, make haste and receive Him joyfully; or you may be like the fair bride in the Canticle who heard the pleading of her beloved but was slow to admit Him to His home.

If you have made excuses in the past,

Crescent



Perfect and Sanitary SEPARATORS, UTENSILS is effectively performed

Crescent ESPECIALLY PREPARED Bbls., 250 lbs.

Made in BRUNNER, M AMHERSTBU

Selling WINN & HOL 137 Mc MONTR

CUTICURA BABY

Could Not S Itched and

"I noticed a baby's face. I t the sun but it kep the skin was red could not sleep Itched and burne him to scratch. courage.

"I saw an adv cura Soap and O a free sample. I after using two ca and two and a ha Ointment he was Mrs. S. D. M Ont., Dec. 18, 19 Use Cuticura S Talcum for every Soap 25c, Ointme throughout the Dom Lyons, Limited, S Cuticura Soap

Advertisements will heading, such as Fe Situations Wanted and TERMS—Four cent Each initial counts fo two words. Names a Cash must always a advertisement inserted

FOR SALE—BELGI ANS' Rabbits, Whit Spotted Rabbits, Bla Nicholson, Strathroy,

FARM FOR SALE— ATED at the Villa Darlington, County of being Lots 11 and 12, approximately 120 acre grain farm; clay loam ing water; orchard; grist mill on the cor school and church wit property. Farm bein Further particulars, M McLaughlin, 44 Brock

WANT TO HEAR G farm for sale. G price. John J. Black Falls, Wisconsin.

Working

with two childr apply stating w J. F. S 16 ALBERT STREE

FOR Case 9-18 Tractor wi very little and in per Maxwellton Farm,

Crescent Cleansing Soda



DAIRYMEN:

Perfect and Sanitary Cleansing of SEPARATORS, VATS and DAIRY UTENSILS is economically and effectively performed by the use of

Crescent Cleansing Soda
ESPECIALLY PREPARED FOR THE PURPOSE

Bbls., 250 lbs. Kegs, 100 lbs.
Bags, 5 lbs.

Made in Canada, by
BRUNNER, MOND CANADA, LIMITED
AMHERSTBURG, ONTARIO

Selling Agents:
WINN & HOLLAND, Limited
137 McGill Street
MONTREAL, P. Q.

**CUTICURA HEALS
BABY'S FACE**

**Could Not Sleep Eruption
Itched and Burned So.**

"I noticed a little pimple on my baby's face. I thought it was from the sun but it kept getting worse and the skin was red and very hot. He could not sleep or rest the eruption itched and burned so, and it caused him to scratch. I was quite discouraged.

"I saw an advertisement for Cuticura Soap and Ointment and sent for a free sample. I bought more and after using two cakes of Cuticura Soap and two and a half boxes of Cuticura Ointment he was healed." (Signed) Mrs. S. D. McGuire, Clarksburg, Ont., Dec. 18, 1918.

Use Cuticura Soap, Ointment and Talcum for every-day toilet purposes.

Soap 25c, Ointment 25 and 50c. Sold throughout the Dominion. Canadian Depot: **Winn & Holland, Limited, St. Paul St., Montreal.** Cuticura Soap shaves without mug.

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

TERMS—Four cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 60 cents.

FOR SALE—BELGIAN HARES, HIMALAYAN'S Rabbits, White Angora Rabbits, English Spotted Rabbits, Black Siberians. Robert W. Nicholson, Strathroy, Ontario.

FARM FOR SALE—150-ACRE FARM, SITUATED at the Village of Tyrone, Township of Darlington, County of West Durham, Ontario, being Lots 11 and 12, Seventh Concession. Approximately 120 acres under cultivation. Good grain farm; clay loam; well underdrained; running water; orchard; extensive farm buildings; grist mill on the corner of the lot. Post office, school and church within a few hundred yards of property. Farm being sold to wind up estate. Further particulars, kindly apply to Mrs. Ellen McLaughlin, 44 Brock Street East, Oshawa, Ont.

WANT TO HEAR FROM PARTY HAVING farm for sale. Give particulars and lowest price. John J. Black, Advocate St., Chippewa Falls, Wisconsin.

Working Housekeeper

with two children, desires position, apply stating wages, etc. to

J. F. SOUTHALL,
16 ALBERT STREET - TORONTO

FOR SALE

Case 9-18 Tractor with two-bottom plow, used very little and in perfect order.
Maxwellton Farm, Baie d'Urfe Que.

and want to find Him now, don't lose hope even though the childlike faith of the past may be hard to find again. Those who seek the King, with an unswerving determination, will find Him. The bride knew that the right place to seek her beloved was in the garden of spices and among the lilies. Seek Christ in the pure word of God, through the sweet incense of prayer, and in the garden where deeds of loving kindness blossom every day.

He wants to abide in your home, though He may have withdrawn from your sight in order to quicken your desire for His presence. Throw open the door of your heart and invite Him to come in and take possession. Fill the home with lilies,—with thoughts which are pure and lovely,—and bring daily offerings of gold, frankincense and myrrh (kind deeds, true worship and self-sacrificing devotion) to present to the King.

Speak to Him and walk after Him, and keep the guest-chamber in beautiful readiness for the Master; and He will certainly accept your invitation and abide in your house as your Guest and your King—yea, and your Comrade—Friend.

"Who at the Master's table serves
Is also guest."

DORA FARNCOMB.

For the Needy.

Two dollars arrived this week from a Quebec reader,—"Marion,"—and ten dollars from L. F., (Forester's Falls.) I was especially glad to have the Q. H. P. well filled just now, because there was special need of its generous help. Those readers who sent papers for the "shut-in" are also sowing good seed in the great field of the world.

DORA FARNCOMB,
6 West Ave., Toronto.

The Children's Poem.

Two Sails.

KATE RANDLE MENEFEE.

A winsome feather went sailing one day,
Over the roses, past children at play.
Up near the clouds with their faces so white,
Floated that feather in gladsome delight.

Then came old Whirl Wind and tossed it
back down,
Tumbling its ruffles and crushing its gown.
Hiding it lay midst the dampness and cold,
There to grow weary with darkness and mold.

Gay Robin Red Breast came hopping
that way;
"Ho, pretty feather," he paused just to say—
"Want to go sailing? I'll help if you do;
I know a home that is open to you!"

Then the dear feather went sailing on high
Up to a home just below the blue sky.
Soon 'gainst her breast there nestled a head;
Sleep, Robin, sleep, on your feathery bed!

Mr. Walter S. Allward, the Toronto sculptor, is working on two bronze memorial statues, one for Stratford and the other for Peterboro, Ont. Both represent, by different designs, the ascendancy of the spiritual man over brute force.

Smiles.

An army mule at one of the cantonments "went west." The private who had charge of the last rites had to fill out the regulation form, and came across the suggestion. "Disposition of carcass."

After a moment's thought Sammie wrote on the blank line:
"Mean and deceitful."—Dallas Holland's Magazine.

"Rastus," said Colonel Sparks, "they tell me that fine dog of yours was run over and killed while you were in church this morning."

"Yes, sah, he wuz, sah. But I ain't worryin' none about it. Mah dawg, sah, wuz fully p'pared to die."

"How's that, Rastus?"

"Well, sah, you see, sah, jest before gittin' hisse'f killed he snuck into de back room of ouah chu'ch and done et up all de communion cake. He wuz fully p'pared!"

A World's Record Heifer

will be included in

MY CONSIGNMENT TO SHAW'S SALE

Toronto, June 25th

Also Her Daughter sired by Champion Echo Sylvia Pontiac



KEYES SEGIS ALCARTRA

Countess Alcartra Segis at one year and 11 months produced in seven days, 462.9 lbs. milk, 27.16 lbs. butter; in 30 days, 1719.6 lbs. milk, 106.34 lbs. butter (world's record); in one day, 71.5 lbs. She comes honestly by her great record. She is a daughter of King Segis Alcartra Spofford, who has a 31-lb. daughter and a 30-lb. 3-year-old daughter; a 26-lb. two-year-old and a 27-lb. year-old daughter, as well as several two-year-olds above 20 lbs. and three-year-olds above 24 lbs. Her dam is by Count Segis Walker Pietertje, who has 23 tested daughters, four over 32 lbs. and 9 over 24 lbs., counting all ages.

Her heifer calf, May Sylvia Alcartra, is a dandy, and the fact that she is sired by Mr. Hardy's great son of May Echo Sylvia, who is the sire of the new world's champion two-year-old, Lady Waldorf Sylvia, will make this calf exceptionally strong in the world's record class.

My other offering will be Keyes Segis Alcartra (see illustration in this advertisement). She is a choice 4-year-old daughter of King Segis Alcartra Spofford, and is bred to King Sadie Vale Veeman. Her dam is daughter of the Great Count Segis Walker Pietertje.

What Do You Consider This Breeding Worth To You?

Answer This Question By Your Bids At Shaw's Sale.

ED. B. PURTELLE, Old Orchard Farm, BLOOMFIELD, ONT.

Soldiers Settling on Land.

The latest figures of the operations of the Soldier Settlement Board of Canada, given by the Director of Information for the Board, show the following:

To May 8th, 1920—Total loans approved, \$64,585,098 for the following purposes: LAND PURCHASE—Amount for purchase, \$35,321,708; amount for improvements, \$4,752,291; amount for stock and equipment, \$14,221,904. Total, \$54,295,903.

CHARGES ON DOMINION LANDS—Amount for improvements, \$1,628,952; amount for S. & E., \$4,542,396. Total, \$6,171,348.

MORTGAGES ON PRIVATELY OWNED LANDS.—Amount for removal of encumbrances, \$1,930,884; amount for improvements, \$708,499; amount for S. & E., \$1,478,464. Total, \$4,117,847. Grand total, \$64,585,098.

Number of loans approved, 24,894; average loan, \$3,945.

Up to April 30th the Agricultural Branch received 51,877 applications for qualification certificates and of these 38,157 were approved from the following Provinces.

British Columbia, 4,667; Alberta, 10,453; Saskatchewan, 9,640; Manitoba, 6,639; Ontario, 3,525; Quebec, 1,063; New Brunswick, 979; Nova Scotia, 779; P. E. I., 442. Total, 38,157.

The Board also reports a total of 6,886 Soldier Grant Entries up to May 29th. This means an acreage of approximately 1,600,000.

Chicago.

Cattle.—Compared with a week ago, common and medium warmed up, steers and she stock, 50c. to \$1.25 higher; others, \$1.25 to \$2, higher.

Hogs.—Bulk, light and light weight, \$15 to \$16.25; bulk, 250 pounds and over, \$14.30 to \$14.95.

Sheep.—Direct to packers. Sales mostly steady.

Victory Bonds.

Following were the values of Victory Bonds on the Toronto market, Saturday, June 12: Victory Bonds maturing 1922, 98 to 99; Victory Bonds maturing 1923, 98 to 99; Victory Bonds maturing 1933, 98½ to 99½; Victory Bonds maturing 1937, 98½ to 99½.

Soil Fertility Conference.

The second annual soil fertility conference, held by the Canadian Fertilizer Association co-operating with the Ontario Agricultural College, will be held at the O. A. C. on June 16, 17 and 18. A number of prominent speakers will be present, among whom are Prof. Geo. W. Cavanaugh, Head of the Department of Chemistry, Cornell University. He speaks on "The Fertilizer Law and Its Interpretation." Dr. H. O. Buckman, of the Soil Technology Department, Cornell University, will discuss "Changes and Losses that certain Plant Nutrients undergo in the Soil," and "The Physical Nature of the Soil and Some Fertilizer Relationships." The Faculty of the Ontario Agricultural College is to be represented by Dr. G. C. Creelman and President J. D. Reynolds, Professors Harcourt, Leitch, Blackwood, Toole and Zavitz. Honorable Manning Doherty is expected to be present. Vegetable growers' problems and soil fertility will be discussed by A. H. MacLennan. Representatives of the fertilizer industry will also take part in the program.

Cheese Markets.

New York, State, whole milk flats, held, white and colored, specials, 29c.; average run, 28c.; State, whole milk flats, current make, white and colored, specials, 25½c. to 26c.; average run, 25c.; Cornwall, 28½c.; London, 28½c.; St. Hyacinthe, Que., 28½c.; Belleville, 28½c.; Cornwall, 28½c.; Montreal, finest easterns, 28½c.

Election Agent.—"That was a good, long speech our candidate made on the farming question, wasn't it?"

Farmer.—"Oh, yes, it wasn't bad; but a couple of nights' good rain would a done a sight more good."—British Farm and Home.

Enclosed find amount of my subscription to "Advocate" for 1920. We find our home is not complete without your farm paper and magazine. It is by far the best all-around farm journal published.

Leeds Co., Ont. **WM. COOPER.**

THE BEST LINIMENT

OR BAIN KILLER FOR THE HUMAN BODY

**Gombault's
Caustic Balsam**
IT HAS NO EQUAL

For — It is penetrating, soothing and healing, and for all Old Sores, Burns, Scalds, the Wounds, Felons, Exterior Cancer, Boils, Corns and Bunions, CAUSTIC BALSAM has no equal as a Liniment.

We would say to all who buy it that it does not contain a particle of poisonous substance and therefore no harm can result from its external use. Persistent, though one will cure every old or chronic ailment and it can be used on any case that resists an ordinary application with perfect safety.

A Perfectly Safe and Reliable Remedy for Sore Throat, Chest Cold, Backache, Neuralgia, Sprains, Strains, Lumbago, Diphtheria, Sore Lungs, Rheumatism and all SOFT JOINTS

REMOVES THE STIFFNESS—STRENGTHENS MUSCLES
Carrhill, Tex.—"One bottle Caustic Balsam did my rheumatism more good than \$120.00 paid in doctor's bills."
OTTO A. BEYER.
Price \$1.75 per bottle. Sold by druggists, or sent by express prepaid. Write for Booklet B, The LAWRENCE-WILLIAMS COMPANY, Toronto, Can.

**THE
MOLSONS
BANK**

Incorporated in 1855
Capital and Reserve \$9,000,000
Over 130 Branches

BEFORE CROPS ARE SOLD
Farmers needing money while waiting to market crops or stock are invited to consult with the Manager at any of The Molsons Bank Branches.

Savings Departments at all Branches.

**COMPOUND
ABSORBENT**



International Compound Absorbent, sold on a spot cash guarantee of satisfactory results or money promptly refunded. For sprains, splints, shoe boil, curbs, wind galls, hard swellings, sprains, etc. A powerful stimulant that absorbs the diseased parts and restores a healthy, normal condition. Positively guaranteed. \$2.50 a bottle, from your dealer.

International Stock Food Company Ltd. Toronto 6

ABSORBINE

Reduces Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from Bruises or Strains; stops Spavin Lameness, allays pain. Does not blister, remove the hair or lay up the horse. \$2.50 a bottle at druggists or delivered. Book 1 R free.

ABSORBINE, JR., for mankind—an antiseptic liniment for bruises, cuts, wounds, strains, painful, swollen veins or glands. It heals and soothes. \$1.25 a bottle at druggists or postpaid. Will tell you more if you write.

W. F. YOUNG, Inc., 258 Lyman's Bldg., Montreal, Can.

**FOR SALE
Registered Percheron Stallion**

cut of first prize, imported from France, stock, two years old. Black with white marking, price most reasonable.

MAXWELTON FARM
Baie d'Urfe' Quebec

Chester Whites—Boars and sows of March and April farrow, sired by our big type imported boar, Ohio King—(20026) 83812. He by Nagles Select and Teva Giant. They are right and priced right.
P. C. GOSNELL, Ridgetown, Ont.

Gossip.

Roycroft Holsteins at Toronto.

There has been in Canada this year a number of outstanding Holstein sales, several of which have broken all previous records for the breed in Canada, but if we can judge from pedigrees and individuality, the Roycroft sale to be held at Toronto on June 25th should make even a more pleasing average than we have had to date. In all there will be 51 head catalogued, which, with three exceptions, includes the entire breeding herd at Roycroft. Added to these will be two daughters of King Segis Alcartra Spofford consigned by Ed. B. Purtelle of Bloomfield, Ontario, who is part owner with Mr. Shaw of King Segis Alcartra Spofford. One of these daughters is at present holding the World's Champion 30-day record for age (2 years, 11 months) with 106.34 lbs. of butter and 1,720 lbs. of milk for this period and also has 27.16 lbs. of butter from 462.9 lbs. of milk in 7 days, her highest day's milk, 71.5 lbs. This heifer now just past the two years is a splendid individual and sells with her 3 month's old heifer calf, which is sired by Champion Echo Sylvia Pontiac the best proven son of May Echo Sylvia. The sister, Keyes Segis Alcartra, has a 22-lb. 2-year-old record and is well forward in service to Mr. Purtelle's great long distance Veeman sire. Before getting back to the Roycroft stuff, we might mention here that A. D. Foster & Son of Bloomfield is consigning the 33-lb. cow, Helena Burke Keyes, who is probably one of the largest individuals of all our high record cows and has well over 700 lbs. of milk in 7 days. She sells with her 3-months-old bull calf, whose sire is a brother to Mabel Segis Korndyke, a 44-lb. cow.

Starting Mr. Shaw's offering, we might begin with one of the twelve daughters of Pontiac Korndyke Het Loo, which are selling. Het Loo Clothilde Korndyke is not only the highest record heifer of these twelve, but she also holds the present Canadian Champion Jr. 3-year-old butter record for seven days with 32.72 lbs. from 456.6 lbs. of milk. Her record has just been completed and she will be selling not bred. This is an excellent type of heifer and her dam was a 27-lb. three-year-old granddaughter of King Segis and her dam again was Nanuet Topsy Clothilde, Canada's first 30-lb. cow. This champion heifer has a heifer calf which will be in the sale sired by Sir Pontiac Echo Het Loo the Junior sire at Roycroft. The next highest daughter is Het Loo Wayne, a 27.04 lb. Jr. 4-year-old, whose dam Francy Belle Wayne, was a 29.30-lb. three-year-old daughter of a 28-lb. cow. This heifer is freshening around sale time to the service of Sir Pontiac Echo Het Loo. Other record daughters of "Pontiac" listed include Het Loo Gretchen, a 25.87-lb. Jr. 3-year-old, Het Loo Gerben, 22.75 lbs. also a Jr. 3-year-old and several other 2-year-olds, all of which are safely bred. There are also two sisters to the Purtelle heifers, one a 19.5 lbs. 2 year-old daughter of Princess Segis Walker, 3 times a 30-lb. cow, and the other now on test with her first calf and running better than 22 lbs. in 7 days. Another noted sire figuring in the offering is Avondale Pontiac Echo, one of the most noted sons of May Echo Sylvia. He has 4 daughters listed, 3 of which were tested this past winter, while Mr. Manhard, the farm Superintendent, was in the hospital and their records averaged better than 20 lbs. as Jr. 2-year-olds. The 4th daughter is a well-grown 2-year-old heifer, well-forward in service to Sir Pontiac Echo Het Loo. In mature cows the offering is strengthened still further by three which are above 30 lbs. and in every case they have almost 700 lbs. of milk.

Summarizing the offering, it will be noted that there are 2 present World's Champion heifers, one in the 7-day and the other in the 30-day division. Seven 30-lb. cows, twelve daughters of cows with records from 30 to 32 lbs., etc., etc., and all are bred to one or the other of the good sires in service at Roycroft. The cattle will be sold subject to the Tuberculin test and contrary to former announcements, the sale will begin at 10.30 a. m. in order that the auctioneers may leave on an early evening train to keep an appointment for Saturday. For catalogues address L. E. Franklin, Secretary of Sale, 28 Adelaide St., W., Toronto, Ont., and mention this paper.

**There's Just One 100% Efficient
CREAM SEPARATOR**

And That's The

DE LAVAL

For Forty Years

The World's Standard

There may be a half-dozen plows, wagons, tractors, autos or other farm equipment to choose between, but no would-be imitator or utilizer of expired De Laval patents has yet produced a cream separator comparable with the De Laval.



First in the beginning, De Laval machines have led in every step of cream separator improvement and development. Every year has presented some new feature or betterment, and the 1920 machines are still better than they have ever been before.

If you haven't seen or tried a new 1920 De Laval machine, any local agent will be glad to afford you the opportunity to do so.

If you don't know the nearest De Laval local agent simply address the nearest main office, as below.

THE DE LAVAL COMPANY, Ltd.

MONTREAL PETERBORO WINNIPEG EDMONTON VANCOUVER
50,000 Branches and Local Agencies the World Over

LAST CALL

FOR

MacVicar's

Ayrshire Sale

AT

BELMONT

June 23rd, 1920

In the Homestead Herd will be found represented the greatest producing strains of Ayrshires on the continent—The Garclaugh's, Aucheyrain's, Netherall's, Jean Armour's and Daisy Queen's—all are there.

46 young cows and heifers and 4 bulls to choose from.

Plan to attend this great sale.

MacVicar Bros., Props., Belmont, Ont.

T. Merritt Moore, Auctioneer.

Send for catalogue to John McKee, Clerk of Sale, Norwich, Ont.



Gossip.

Sale Dates.

June 23, 1920.—MacVicar Bros., Belmont, Ont.—Ayrshires.

June 23, 1920.—J. Andrew Knox, Norwood, Ont.—Scotch Shorthorns.

June 24, 1920.—David A. Ashworth, Denfield, Ont.—Ayrshires, Horses, Yorkshires, etc.

June 25, 1920.—W. H. Shaw, Newmarket, Ont.—Holsteins. Sale starts at 10.30 a.m.

June 25, 1920.—Chas. Calder Estate 2 miles South of Myrtle Station.—Short-horns, etc.

Grain in Store Decreasing

According to the returns of the Dominion Bureau of Statistics for the week ending May 28, the quantity of grain in store at the different public elevators throughout Canada was decreased by over three million bushels, as compared with the previous week. Flax and rye, however, had increased by some seventy thousand bushels. At the terminal elevators of Fort William and Port Arthur the quantity of grain in store, principally wheat, oats and barley, decreased by 2,324,816 bushels. At the interior terminal elevators there was a slight increase in the amount of wheat, but a decrease of the other crops.

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THE WESTSIDE HERD

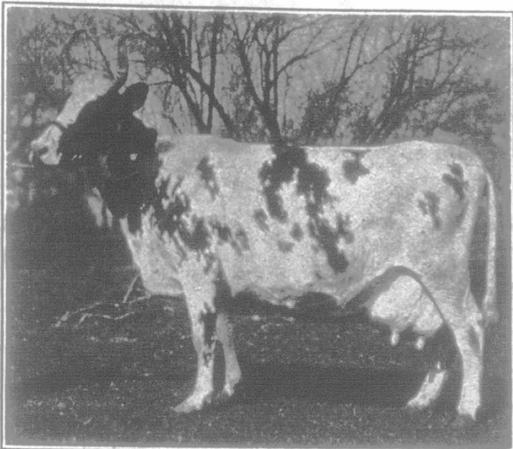
Twenty-five Head of
Choice Record of Performance

AYRSHIRES

will be sold at the farm,
Con. 15, Lot 9, Middlesex County, on

Thursday June 24th,
1920

(Motor conveyances will be at the "Walper House",
London, Ont. until the arrival of morning trains from
the East and West, to convey all parties to the farm.)



Butter Alice, one of Mr. Ashworth's foundation cows—now
milking 65 lbs. a day.

THE foundation females of this herd are not only exceptionally large, but all have a combination of type and production seldom excelled by any of the larger herds of the Dominion—all their records (although in no case very high) have been made on twice-a-day milking only, and all are safely bred to our great young herd sire St. Nicholas of Orkney, whose dam Brighton Brae Blossom 4th gave 11,140 lbs. milk as a 3-year-old and his sire Perfection of Orkney was a son of Milkmaid 7th, who gave 14,872 lbs. as a 4-year-old. The calves in our herd will be the best evidence as to the worth of this grand herdsire. There will positively be no reserve.

FOR CATALOGUES ADDRESS

David A. Ashworth, Denfield, Ont.

T. Merrit Moore, Auctioneer

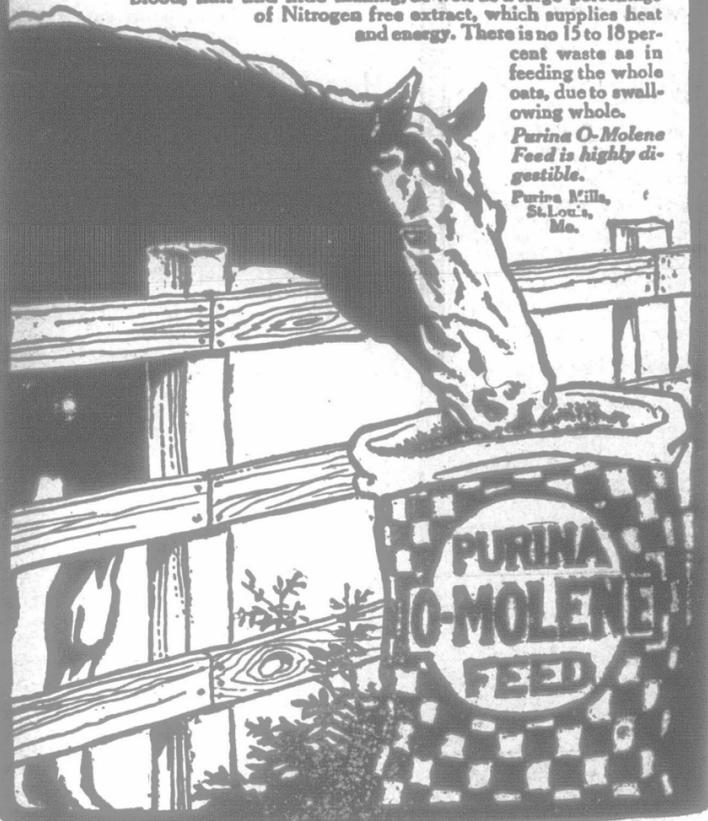
Jno. McKee, Sales Mgr.

This sale follows the MacVicar Sale at Belmont, June 23.

HORSE SENSE in horse feeding.

It is shrewd common sense to feed a horse a balanced feed, which will develop every part of its body. Analysis of Purina O-Molene Feed shows that it contains in proper proportion all the elements for muscle, blood, hair and hide making, as well as a large percentage of Nitrogen free extract, which supplies heat and energy. There is no 15 to 18 percent waste as in feeding the whole oats, due to swallowing whole.

Purina O-Molene Feed is highly digestible.
Purina Mills,
St. Louis,
Mo.



The Chisholm Milling Company, Limited, Toronto
"There's a Purina Feed for every need."



IMPERIAL HARNESS

IMPERIAL BRAND HARNESS is guaranteed free from all defects in workmanship and materials. You are certain of satisfaction when you buy a set of harness made by Trees & Company.

No. 640, Team Harness, is especially designed for farm work such as ploughing, seeding and general hauling. Exceptionally good value at a very low price. Blind Bridles with side check; lines one inch; high top hames; traces, steel chain, leather covered; pads with hook and terrets; backstrap with trace carriers riveted on top. White metal or japanned mounts, less collars. **\$57.00**

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35x4 1/2\$	33.00
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Special 30x3 1/2 Tubes. Guaranteed \$2.25

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Session Begins October 1st, 1920.

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The acoustic design permits the full, free development of the sound waves and gives them a tone of exquisite clearness and purity.

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A2924 10-inch Symphony, \$1.00

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A6146 12-inch \$1.65

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Baby Mine and Mamma's Song, Lucy Gates. A2911 10-inch \$1.00

The Want of You and I Know a Lovely Garden, Louis Gaveure. A2897 10-inch \$1.00

Swallow Tail and Greenfields of America (Irish Reels) and Liverpool and O'Neil's Favorite (Irish Hornpipes) Patrick J. Scanlon, Accordion Solos. A2902 10-inch \$1.00

New Columbia Records are out the 10th and 20th of the month
Columbia Grafonolas Standard Models up to \$360.

COLUMBIA GRAPHOPHONE COMPANY, TORONTO. 152



Aberdeen - Angus

A few typey young bulls and females to offer, of choice breeding and individuality.

Shropshire and Southdown Sheep

Yearling Rams and Ewes for breeding purposes or fitted for the show ring.

Inspection invited, satisfaction assured.

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Aberdeen - Angus

Present offering—A few young bulls ready for service.

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Telephone—Oakwood. Railway—Lindsay.
G. T. R. and C. P. R.

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Angus, Southdowns, Collies

Choice bred heifers. Bulls 8 to 15 months. Southdown ewes in lamb.

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Nine extra good young bulls for sale. Also females all ages. Show-ring quality.

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Shorthorns

Begin the pasture season by the purchase of a sire which will add value to your calves. For milk and beef. From imported stock of choice breeding. We have a fine choice of bull calves and bulls.

Also English Large Black Pigs. A thrifty breed. Write or call.

LYNNORE STOCK FARM

F. W. Cockshutt, - Brantford, Ont.

Aberdeen - Angus

Meadowdale Farm

Forest, Ontario

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Mardella Dual-Purpose SHORTHORNS

Eight choice young bulls, 30 females, cows and heifers. All of good size, type and breeding. Herd headed by The Duke; dam gave 13,599 lbs. milk, 474 lbs. butter-fat. He is one of the greatest living combinations of beef, milk and Shorthorn character. All priced to sell. Write, call or 'phone. THOMAS GRAHAM, Port Perry, R.R. 3, Ontario

Reyburn Milking Shorthorns

Herd headed by Victor 3rd, Imp., Grand Champion at Erie Show and Congress. Herd average over 9,500 lbs. milk per cow. Choice cows, heifers and herd-heading sires for sale.

R. R. WHEATON

THORNDALE, ONTARIO

Long-distance 'phone and telegraph.

DUAL-PURPOSE SHORTHORNS

Herd headed by Dominator 106224, whose two nearest dams average 12,112 pounds of milk in a year. Bulls from 1 to 6 months old for sale, also a cow or two. Inspection of herd solicited.

WELDWOOD FARM

Farmer's Advocate

LONDON, ONT.

HILLVIEW DUAL-PURPOSE SHORTHORNS

I have in my herd seven officially tested cows, some with R.O.P. record of 7,900 lbs. as a two-year-old and 11,500 lbs. in 4-year class. Herd headed by Kitchener 104066 a heavy, thick grandson of Dairymaid 86086. Four young bulls for sale. Government test tells what their dams have done at the pail, and if you are interested, come and see the individuals. D. Z. Gibson, Caledonia, Ont.

MILKING SHORTHORNS

Young stock from R. O. P. cows by imported sires.

BERKSHIRE PIGS

Choicely bred sows and boars, all ages. Can supply pairs, not akin.

J. B. PEARSON, Manager - Credit Grange Farm - Meadowdale, Ont.

Questions and Answers. Miscellaneous.

Seeding to Sweet Clover.

We have a good stand of alfalfa. Would you advise cutting the first or second crop for seed?

2. Would it be wise to seed down the sweet clover when sowing buckwheat on clean, light land?

3. By cutting sweet clover for hay and taking the two crops off this season, will there be any crop next year, or should I plow it up this fall?

4. When sown for pasture does it come year after year if not pastured too closely?

H. S.

Ans.—1. As a rule, it is safer to take the first crop for seed, unless you are in a district that has a long growing season.

2. We have not tried it, but if the buckwheat was not too thick or lodged, the sweet clover should attain a fair stand.

3. You are not likely to obtain much of a stand next season as sweet clover is a biennial plant. We would advise plowing in the fall.

4. If the plants are allowed to go to seed they will automatically re-seed the field, but if not allowed to seed then the field should be plowed up and handled similar to a crop of red clover.

Spraying Tomatoes for Rot.

Would you kindly let me know how to spray tomatoes to prevent blight or rot; also when to do it?

A. P.

Ans.—There are no sprays that we know of that will adequately protect tomatoes from the effects of rot. Bordeaux mixture such as is sometimes used for leaf spot on tomatoes will afford some protection, but more can be done by providing a clean soil and practicing a good rotation. Blossom end rot, which may be very sudden and severe, is difficult to check in the field and is due to irregularities in the water supply. Under greenhouse conditions this can usually be controlled, but in the field the water supply is practically dependent on the weather. Where Bordeaux mixture is to be used for fruit rot and for leaf spot it should be made up in the regular way by using 4 pounds bluestone or copper sulphate and 4 or 5 pounds of fresh stone lime or 6 to 8 pounds of hydrated lime to 40 gallons of water. Hydrated lime is much the most convenient form to use, but if left exposed to the air it becomes useless so it should be kept in tightly fastened paper bags in a dry place. The sprays for leaf-spot and fruit rot of tomatoes should begin in the seed bed and should be repeated at intervals of about ten days during the growing season.

Wild Pigeons.

I have recently seen some birds which I think may be wild pigeons, and should be glad of some information about this species. What is its color? Is it as large as a tame pigeon? Where does it build its nest? Does it fly swiftly? Does it alight in a tree? Do you have to get the pigeons to obtain the reward offered for their discovery?

S. W.

Ans.—The Wild or Passenger Pigeon is in all probability now entirely extinct. None have been seen by any competent observer for over ten years and the reward for the discovery of a nest of this species, which was open for some three years, did not result in the finding of any of these birds. This reward was for the finding of a nest, the nest to be left untouched and shown to an ornithologist delegated by the donor of the reward. Many nests were investigated, but all were found to be those of other species of pigeons or doves.

The Passenger Pigeon was 17 inches long, the upper parts slaty-gray, tinged with brown, the underparts purplish-buff. The nest was loosely made of sticks and placed in a tree. Its flight was swift. It frequently perched in trees.

It is not likely that your birds are Passenger Pigeons. They are probably Mourning Doves, which are quite common in Wellington County. This species is about 12 inches long, purplish-brown above, under parts purplish-buff and it has a small black patch on the cheek. The nest a slight platform of sticks, is built in a tree. The eggs are two in number and are white. A. B. K.

30 HEAD S
54 HEAD
2 HEAD

This high-class
by public auc
3 miles north
Credit will be
Write for cat
WM. H. H.

Jos.

40 SC

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find it to the

J. A. & H. M.

The Sale

HERD HE

Write
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J. A. WAT

WALN

We are offering choic
Eclipse and Trout Cr
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Cedar Dale Scotcl

by Gairford Matches
heifers, and must sell
at all times.

SHOR

Just one bull left, 9 m
sired by Baron's
Brooklin G.T.R. and

Spring Val

brother also, an extra
Telephone and te

20 Bulls—SPRU

a Rubyhill, bred by E
bargains in farmer's b
J. L. and T. V.

Shorthorn I

grandson of Gairford
same sire that sired t
if you want them.

PUS

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A. G. AULD,

BLAIR

3 Imported b

JNO. MILLER

Pear Lawn Sho

one Golden Rose bull,
few young cows with
rising one year; one
MILLER, Keene P.O.

Newcastle Herd o

and cows with calves
farrow in May, June,
prize-winning stock.
Long-distance 'P

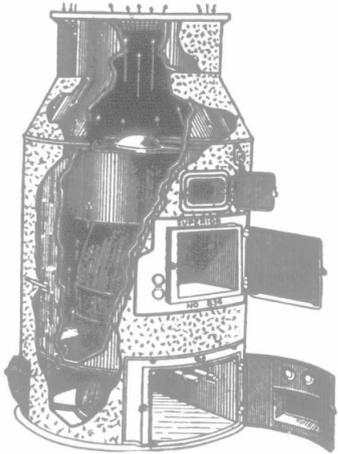
Shorthorn I

bull calf (5 mos.); an
a great milking fami
Shepherd Rosemary (P
Claremont C.P.R.
Pickeri

"Roycr

Fifty He

The Pilot Superior Heat for Farm Homes



There are many reasons why the Pilot Superior is the choice of so many Canadian Farmers. It is particularly well adapted to the requirements of the average farm homes and because of its unique construction, has placed the convenience of a safe, sanitary, and healthful furnace heat within the reach of these folks who fully appreciate its remarkable qualities.

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No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use Fleming's Spavin and Ringbone Paste. Use it under our guarantee—your money refunded if it doesn't make the horse go sound.

Maple Shade SHORTHORNS

A dozen young bulls imported and my own breeding at moderate prices.

W. A. DRYDEN Brooklin, Ontario

SHORTHORNS

Present offering: Six young bulls, Reds and Roans, also a number of females. They have size, quality and breeding from good milking dams. Prices moderate. Satisfaction guaranteed.

CHAS. GRAHAM - Port Perry, Ontario

SPRUCE LODGE STOCK FARM Shorthorns and Leicesters For Sale Two choice young bulls, 6 and 11 months old, also one and two-year-old heifers, all got by Royal Chief Imp. = 60865 = W. A. DOUGLAS, Caledonia, Ontario

Scotch Shorthorns—Herd headed by Marquis Gainford Marquis. Stock of either sex for sale. Also Oxford Down ewes. GEO. D. FLETCHER, Erin, R.R. 1, Ont.

PATENT SOLICITORS Fetherstonhaugh & Co. The old-established firm. Patent everywhere. Head Office: Royal Bank Buildings, Toronto. Ottawa Office: 5 Elgin Street. Offices throughout Canada. Booklet free.

Gossip.

Canadian Goat Society.

The Canadian Goat Society held its third annual meeting in Vancouver early in May. President A. French, of Vancouver, was in the chair, and in his opening address pointed out that the organization had experienced steady progress during the past year. There is a growing demand for goats at very satisfactory prices. The quality of the stock is also being improved, but there is yet need for new blood. This may be secured in time, as American breeders are importing shipments from Switzerland.

Questions and Answers.

Miscellaneous.

Removing Straw.

A rents a farm from B for the term of one year. He wishes to draw the grain in the sheaf to an adjoining farm. The lease reads "that all straw and manure which shall grow, renew or be made upon the place shall not be removed from the said premises." Can A legally draw the grain home in the sheaf? Can B compel A to have the grain threshed on the premises as there are barns there. H. G.

Ans.—According to the lease, A is not in a position to draw the crop off the place. Because the grain is in the sheaf will not permit him to evade the wording of the lease.

Making a Milk House Cooler.

Can you give any information on how to make a milk house cooler? It is 14 by 18 feet, has a cement foundation with rough lumber siding and a metal shingle roof. Would lining it with brick or about four inches of cement help? F. A. S.

Ans.—No doubt you could make the milk house much cooler if it were lined with brick or cement as you suggest. In our issue of May 27 a very satisfactory milk house of this size is described which has walls consisting of boarding outside, inside and in the centre, with a prepared roofing material between each two layers of boards. The roof is the same and the whole building above the cement foundation, which extends part of the way up, is covered with corrugated metal roofing material. Keeping the floors damp in warm weather will also help to keep the place cool.

Sweet Potatoes.

What soil is best for growing sweet potatoes and where could I buy the seed? A. M.

Ans. The sweet potato is a perennial plant, and is grown very extensively in the United States. There are a number of varieties and they do best on the lighter soils. A moderate proportion of sand in the top soil, with a fairly retentive sub-soil, provides ideal conditions. Whatever the type of soil, it must be warm, loose and well drained. New land is regarded as especially valuable for this crop. An abundance of sunshine is essential to high yields, and there should be a growing season of not less than four and a half months without a frost. Warm night temperatures are especially desirable. The soil should be well cultivated and free from weeds. The plants should be set in rows 4 to 5 feet apart, and 12 to 15 inches apart in the rows. They should be kept well watered, and the soil should be kept loose and free from weeds. The crop should be harvested when the leaves are yellow and the tubers are fully developed. They should be cured in a warm, dry place for several weeks before using.



In a nutshell

FIVE words—"Skims clean at any speed"—tell one of the basic differences between the Sharples Suction-feed and all other separators.

Other Separators lose butterfat when turned "under speed," and tests prove that 95% of all hand separators are turned under speed much of the time.

Sharples' simple one-piece bowl (no discs) knee-low supply can, "once-a-month" automatic oiling system are also exclusive Sharples advantages.

It is costing you more to be without a Sharples Suction-feed than it would to buy one.

One type of Sharples Suction-feed Separator is electrically operated with current from farm lighting system.

Write for Sharples catalog, addressing nearest office. Dept. 78.

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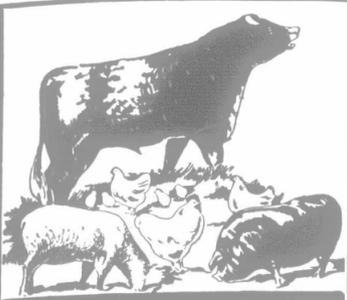
"There are no substitutes for dairy foods."

Scotch Shorthorn Bulls and Females—I have a nice offering of Scotch young bulls still on hand. The pedigrees are choice, the individuality is good—and the prices are right. If you want one Shorthorn female or a carload, come to Markdale. THOS. MERCER, Markdale, Ont.

Shorthorn Bulls and Females—Herd headed by Ruby Marquis, a son of the great Gainford Marquis (Imp.). Our prices are low and we are also offering a few females in calf to him. Get out PRITCHARD BROS., - R. R. No. 1, - ELORA, ONT.

Imported Scotch Shorthorns For Sale—Three imported bulls, one yearling, one two-year-old and our three-year-old herd of our own breeding, and three well-bred bull calves. R. M. MITCHELL, R.R. No. 1, Freeman, Ont.

WILLOW BANK STOCK FARM ESTABLISHED 1855 Bulls in service: Browndale—80112, by Avondale, and a special good lot of young calves. Write for information or come and see. CALEDONIA, ONT.



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Parasiticide. Disinfectant.
USE IT ON ALL LIVESTOCK

To Kill Lice, Mites, Fleas,
and Sheep Ticks.
To Help Heal Cuts, Scratches and
Common Skin Troubles.

USE IT IN ALL BUILDINGS

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EASY TO USE. EFFICIENT. ECONOMICAL.

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CALF MEAL

(The Original Calf Meal)

Has raised more calves than
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ASK YOUR DEALER

FOR SALE SIR AAGGIE PONTIAC KEYES

Born February 21st, 1918

Dam, Aaggie Pontiac Walker, 20.77 lbs. butter
in 7 days at 2 years 3 months, and her dam, Aaggie
Favorit Johanna, 30.68 lbs. butter in 7 days and
over 100 lbs. milk in a day.

His sire, King Korndyke Sadie Keyes, is a son
of Lulu Keyes, 36.05 lbs. butter in 7 days. Price
for quick sale, \$350.00. For further particulars
apply to

H. F. LONEY - Warton, Ont.

"Advocate" Advt. Pay.

Raymondale Holstein-Friesians

A herd sire of our breeding will improve your herd. We have sons of our present
sire, Pontiac Korndyke of Het Loo (sire of \$12,750 Het Loo Pieterje), and
also sons of our former sire, Avondale Pontiac Echo. Several of these are of
serviceable age, and all are from good record dams. Quality considered, our
prices are lower than anywhere else on the continent. Their youngsters
should not remain long. Write to-day.

RAYMONDALE FARM, Vaudreuil, Que. D. RAYMOND, Owner, Queen's Hotel, Montreal

Cloverlea Dairy Farms Herd headed by King Pontiac Rauwerd who combines
the blood of Canada's greatest sires and dams. His offspring
are a choice lot. We have stock for sale, both male and female, 75 head to choose from
Consult us before buying elsewhere. Could book a few more cows for service to "King."
GRIESBACH BROS., - L.-D. phone - Collingwood, Ont.

HOLSTEIN BULLS FROM 30-lb. DAMS

If you want 30-lb. bulls—good individuals—and priced right—you should see my present offering. I
also have lower priced bulls and am offering females bred to Ormsby Jane Burke. Correspondence
solicited. **R. M. HOLTBY,** Manchester G.T.R., Myrtle C.P.R.; PORT PERRY, ONT.

"Premier" Holstein Bulls Ready for Service—I have several young bulls from dams with
7-day records up to 32.66 lbs. of butter, 75.9 lbs. of milk with
110 lbs. of milk in one day—over 3,000 lbs. in 30 days. All are sired by present herd sire which is a
brother to May Echo Sylvia. Step lively if you want these calves.
H. H. BAILEY, - Oak Park Farm, - PARIS, ONT.

Holsteins, Cotswolds and Yorkshires for service. SOVEREIGN ALCARTRA
JOSEPH
His sire is one of three famous Cherry Grove full sisters. Her latest record is 24.65 lbs. milk and
1.91 lbs. butter one year. His sire's dam, Baroness Madeline, Canada's only 4 times 20,000 lb. cow
Fee \$25.00 for approved cows. For sale bull calves whose two nearest dams average over 20,000 lbs.
milk in 7 days. Also Yorkshires of both sex. **R. Honey & Sons, Dartford, Ontario.**

Two Young Holstein Herd Sires—I have only two young bulls of serviceable age left
both are sired by Lyons Herd sire, Champlain, whose
dam is a 25.83-lb. junior 3-year-old daughter of Baroness Madeline, 31.48 lbs. Both calves are 12-
month youngsters, one from a full sister of a 29.65-lb. cow and the other is from an untested daugh-
ter of a Colantha Fayne. They are priced to sell.
T. W. McQUEEN (Oxford Co.) Tillsonburg, Ont.

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FARMER'S ADVOCATE AND HOME MAGAZINE. You
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THE WILLIAM WELD CO., LIMITED, LONDON, ONTARIO



Pontiac Korndyke Het Loo, Senior Sire at "Roycroft"

CANADA'S GREATEST SALE of the WORLD'S GREATEST BREED ROYCROFT HOLSTEINS

The New Home of Alcartra King Sylvia (the \$50,000 son of Tilly Alcartra)

FIFTY HEAD OF OUR VERY BEST

Selling at the

CANADIAN NATIONAL EXHIBITION GROUNDS

Toronto, Canada - - Friday, June 25th, 1920

FEATURING:—

- The present Canadian Champion Jr. 3 year-old, 33.72 lbs.
- The present World's Champion Heifer under 2 years. (30 days.) 106.34 lbs.
- A daughter of the Champion 30-day Heifer, Sired by Champion Echo Sylvia Pontiac.
- A 33.28-lb. Show Cow with 713.4 lbs. of milk for the 7 days.
- A 33.31-lb. six-year-old Cow with 685 lbs. of milk in 7 days.
- A 31.41-lb. granddaughter of the great Pontiac Korndyke.
- Three other Cows all above 30 lbs. of butter in 7 days, all bred to good Sires.
- Twelve daughters of Cows with records from 30 to 33 lbs.
- Thirteen daughters of Pontiac Korndyke Het Loo.
(Sire of the \$12,750 Het Loo Pieterje, 30.32 lbs. at Jr. 2 years, World's Record.)
- Four daughters of Avon Pontiac Echo.
(One of the highest priced sons of May Echo Sylvia.)
- Four daughters of King Segis Alcartra Spofford.
(Sire of the World's Champion 30-day Heifer, under 2 years.)
- Fifty offerings that will please you if you are interested in the best.

W. L. SHAW, Owner
Secretary, L. E. FRANKLIN

GORDON S. MANHARD, Supt. Auctioneers, KELLEY-HAEGER
In the Box, S. T. WOOD

The last call—Remember the date, Friday, June 25.

Hamilton House Holstein Sires

Our young bulls of serviceable age have all been sold but we have a number of the
best young calves we have ever bred. All are from dams with good combination
records for both milk and butter. Several are up to 700 lbs. of milk and 31 lbs. of
butter for 7 days. If you are interested in a good calf, write or see them now—they
can be purchased at considerably less than we will be pricing them next winter.

D. B. TRACY - (All Railways) - **COBOURG, ONT.**
Bell Phone

Hospital for the Insane, Hamilton, Ont.

HOLSTEIN BULLS ONLY FOR SALE

Senior sire, from one of the best sons of King Segis Alcartra Spofford. Junior sire, son of
the noted M.E. Echo Sylvia, by Champion Echo Sylvia Pontiac.
Write to the Superintendent for prices, etc.

Evergreen Stock Farm Registered Holsteins

Our motto is "Quality and Individuality" in a profitable producing kind. Nothing for sale now, but get in
line early for your next herd sire.

A. E. HULET, - Oxford Co., G.T.R. - **NORWICH, ONTARIO**

HOLSTEINS

For the next three days I am offering bull calves from
2 to 4 months old at a reasonable price. Some of the grand-
sons of M.E. Echo Sylvia, by Champion Echo Sylvia Pontiac.
Write to the Superintendent for prices, etc.

W. FRED. FALLIS, R.R. 3, Millbrook, Ontario

High-Testing Holsteins

Present offering—Three young bulls, 10 months old, all splendid indi-
viduals, out of high producing dams, backed by noted blood and big
records. Our herd sire, Ormsby Jane Hengerold King, by Ormsby Jane King, has been used on
the island for several seasons, and his get, both sires and bulls, are exceptionally promising indi-
viduals. It will pay you to inspect these youngsters before buying.

L. C. SNOWDEN, R.R. 3, Bowmanville, Ont.



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—and the prices are

Markdale, Ont.

by Marquis, a son of
Marquis (Imp.). Our
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d bulls, one yearling,
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PRESTON STEEL TRUSS BARN

Every plank and board that goes into the construction of a Preston Steel Truss Barn is cut from logs taken out of our own timber limits, handled by our own men and made into lumber by our own saw and planing mills. Nothing but the best goes into Preston Steel Truss Barns.

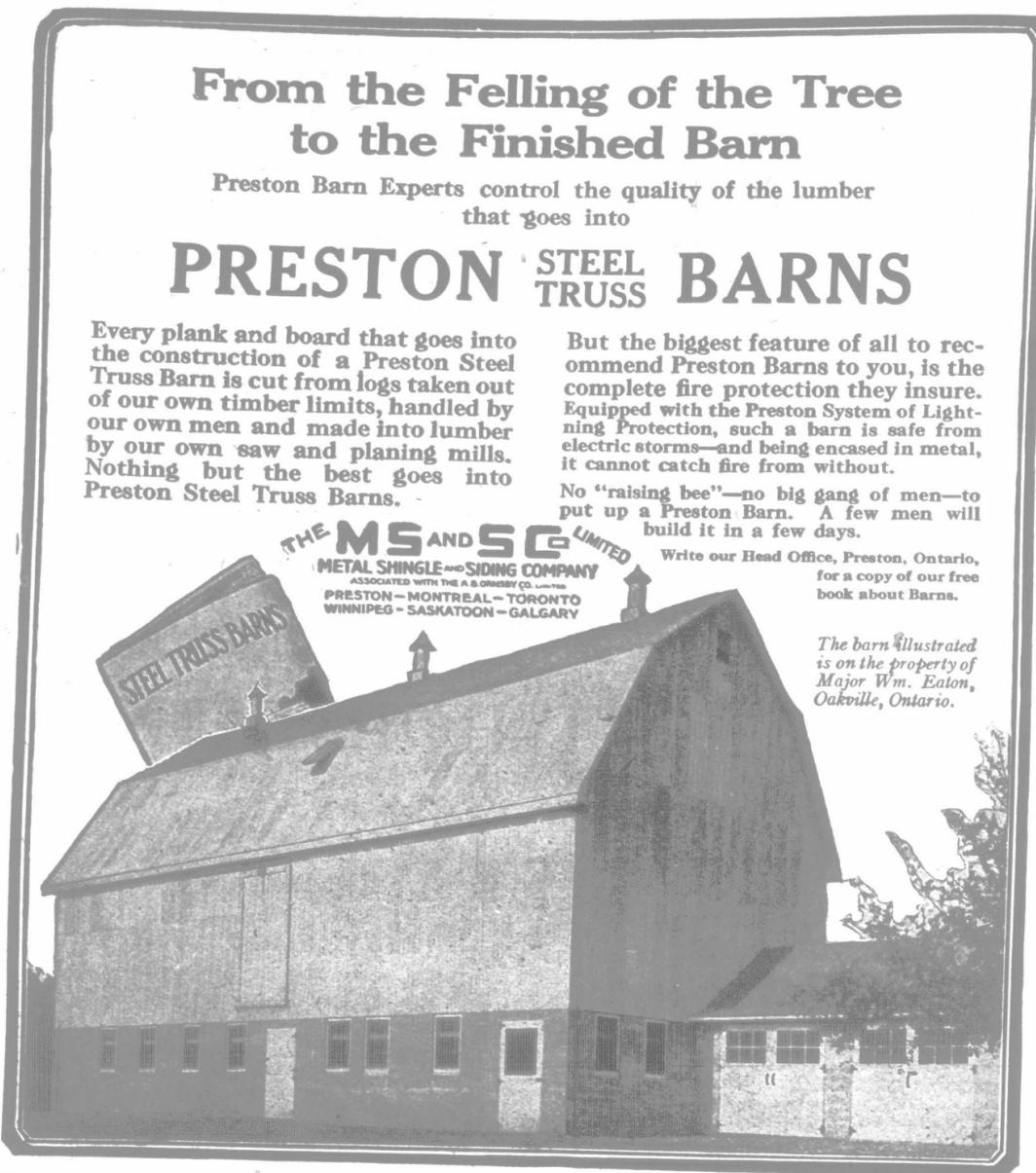
But the biggest feature of all to recommend Preston Barns to you, is the complete fire protection they insure. Equipped with the Preston System of Lightning Protection, such a barn is safe from electric storms—and being encased in metal, it cannot catch fire from without.

No "raising bee"—no big gang of men—to put up a Preston Barn. A few men will build it in a few days.

THE M S AND S G LIMITED
METAL SHINGLE AND SIDING COMPANY
ASSOCIATED WITH THE A. B. GIBSON CO. LIMITED
PRESTON—MONTREAL—TORONTO
WINNIPEG—SASKATOON—GALGARY

Write our Head Office, Preston, Ontario, for a copy of our free book about Barns.

The barn illustrated is on the property of Major Wm. Eaton, Oakville, Ontario.



Gossip.

Inter-Provincial Plowing Match.
The Eastern Ontario and Western Quebec Plowmen's Association is making preparation for an Inter-Provincial Plowing Match, tractor and farm machinery demonstration of October 12, 13 and 14, 1920. The competition and demonstration are to be held on the Macdonald College Farm, Ste. Anne de Bellevue, Quebec. Last year the event was staged on the Central Experimental and Booth Farms, Ottawa. In choosing the location for this year's match the directors have kept in mind the accessibility to the public from either Ontario or Quebec; also the standpoint of accommodation to exhibitors and visitors. Macdonald College Farm offers splendid opportunities situated as it is close to the City of Montreal. The fields to be used are ideal for demonstration and competitive work. A goodly number of tractor and farm-machinery companies have already stated their intention of attending this event, and no doubt many others will follow. The prize list includes plowing in sod, open to all, and also classes for boys under twenty years and under seventeen. There are classes for tractor plowing with a two-furrow gang, and also for farmers' tractor plowing. There are also a number of specials. It is understood that the Canadian Freight Association is providing a special and reduced rate on horses and equipment for the plowing match. Everything is being done to make this the best event of its kind ever staged. L. C. McQuat of Macdonald College, Quebec, is the Secretary.

Knox Shorthorn Sale.

In another column of this issue appears an advertisement of Scotch Shorthorns to be sold at Norwood, by J. Andrew Knox and F. C. McRae. This is a dispersal sale which should prove attractive to all interested in the red, white and roan breed. Many of the females in the sale are sired by the former herd sire, Escana Bandmaster, a son of Right Sort Imp., and full brother to Escana Champion, grand champion bull at Toronto in 1919. The present herd sire is Village Rosewood 2nd, a Cruickshank-Village-Girl-bred son of Rosewood Champion. Everything but the foundation females has been raised on the farm, and it will be noted that the herd represents blood from the herds of Duthie, Marr, Cruickshank, Gordon and Bruce. The younger cows and heifers sired by Escana Bandmaster are a creditable, even lot, and they give evidence of being able to produce milk in quantities that will show a profit at the pail. The breeding for the most part is straight Scotch, and most of the females are just two or three crosses from the imported cows. Special mention might be made of a red yearling heifer, Primrose Beauty 8th, a deep, sappy heifer got by Escana Bandmaster and from Primrose Beauty 2nd. Then there is Princess Beauty 4th, which is not far removed from an imported cow. This heifer has a well-balanced udder and sells with a roan heifer calf at foot. There are thirty-six head selling, and arrangements have been made for the C. P. R. morning trains from Toronto to stop at the farm on the day of the sale. Write Mr. Knox, Norwood, for a catalogue giving full particulars regarding the breeding of the various individuals.

Necessary to good cheese

Windsor Cheese Salt

Made in Canada
THE CANADIAN SALT CO. LIMITED
C311

Use Power in the House as well as in the Barn

Runs by Motor or Engine

YOU know how much farm work is saved by electric motors and gasoline engines. Why not adopt the same idea in the house? Backaches from washing are out-of-date—successful housekeepers everywhere insist on washing machines, and the best idea of all is the power washer, because it does all the work itself and needs no attention whatever.

Maxwell
Power Bench Washer

has proved itself a wonderful friend to others. Let it help you. It will even do the wringing! Handles the biggest or smallest wash, heaviest or daintiest clothes with no tearing or wearing. Pays for itself over and over! Made in three sizes. Write for particulars.

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

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BRAMPTON JERSEYS

THE LARGEST JERSEY HERD IN THE BRITISH EMPIRE

At Toronto Exhibition, 1919, we won twenty-five of twenty-seven first prizes. We now have for sale first-prize young bulls from R. O. P. dams, as well as females of all ages.

B. H. BULL & SONS :: Brampton, Ontario

ALL BULLS OF SERVICEABLE AGE SOLD

A few young bulls sired by Financial Raleigh King, son of the \$6,000.00 Financial Beauty King, for sale, from R.O.P. dams.
JAS. BAGG & SONS, (Woodbridge, C.P.R., Concord, G.T.R.) EDGELEY, ONT.

Laurentian Producing Jerseys—The oldest bull we have at present is a year old youngster, sired by our herd sire, Broadview Bright Villa, No. 5630, and from Brampton Astoria, one of the best imported cows in the herd. We also have others younger of similar breeding, as well as a few bred heifers for sale.
FREDERICK G. TODD, Owner, 501 New Birks Bldg., Montreal, P.Q.
Farm at Morin Heights - F. J. WATSON, Manager

CANADA'S MOST BEAUTIFUL JERSEY HERD

Woodview Farm Jerseys
Herd headed by Imported Champion Rower, winner of first prize with five of his daughters on the Island of Jersey, 1914, second in 1916, and again first in 1917. We are now offering for sale some very choice bull calves, ready for service, sired by imported bulls and from Record of Performance imported prize-winning cows. Also some of the very best heifers. Prices right. We work our show pens and show our work cows.

Glenhurst Ayrshires
headed by Mansfield Mains Sir Douglas Hague No. 10163 Imp. have been noted for their depth and size. From cows and sires of high reputation. If you are looking for a cow of thickness of size, type and production—please write me or visit the farm. I will show you all my stock.
JAMES BENNING, Schermerhorn Sta., G.T.R., Williamsstown, C.P.R., Box 74, phone 72-3 Cornwall

Questions and Answers.

Miscellaneous.

Ringworm.

What is a good cure for ringworm around a calf's eye and nose?

2. What is the cause of a swelling underneath a heifer that has just freshened? What could I do for it? F. I.

Ans.—1. Apply sweet oil to the ringworm to soften the scales, and then paint with iodine. Care should be taken to isolate the infected animals from the herd, and also to not touch the infected parts with the hands.

2. This sometimes occurs without any apparent reason. It may be caused by a bruise or injury during freshening. The best treatment is to bathe frequently with hot water until it comes to a head, and then it may be necessary to lance.

Bett
Ontario
Ontario

IN 1919
cows in pure-bred one or more them. Pr just cows. of the cows counties, are pure-

Loss
BULLS

for feeding the milk w farmers who sires behind for the mil feed cost, t of the cow and milking The farm more cross ceived an a milk from e the cow cos It will be who kept c of pure blo his work th of nondescr cows in On bulls and t \$33.00 each they would keeping cow blood in the This mea of Ontario by keeping have otherw Did you you keep a Use Ches Our sixth impo ter farrowed in boar Ohio State unteer," Champ sired by 1st an boars at C. N. herd. Illustrat JOHN G. A Berkshires Premier's Succo 1914, Champion scendants have the largest and Champion Berks were double gra sor. We have sh with satisfaction HOOD FAR YOR Pigs of f WEL Farmer's Ad TA Young sows, bre boards for JOHN W. TOD Meadow Br service, from pri able for quick sa G. W. MINER CHEE Choice young p Collaway Fild a few e Geo. E. Norry, Prospect Hill sows and hea headed by our st prices right. JOHN WEIR Sunnyside Ch bred from our ch lambs, by our T out of Toronto W. E. Wrie

Better Bull Bulletin

No. 3
Ontario Cattle Breeders' Association
Toronto, Ontario

Ontario Dairy Cattle

IN 1919, there were 1,141,000 milch cows in Ontario. A few of these were pure-bred cows. Some of them had one or more crosses of pure blood in them. Practically half of them were just cows. In some counties two-thirds of the cows had no pure blood. In other counties, as high as 60% of the cows were pure-bred or had one or more crosses of pure blood, but the average for the province was one-half with no pure breeding behind them.

In one county records were kept by 300 farmers, cost for feeding their cows, and the value of the milk which the cows gave. Those farmers who kept just cows, no improved sires behind, received an average per cow for the milk sold, of \$18.00 more than feed cost, to pay for interest on the cost of the cow and all his work of feeding and milking.

The farmers, whose cows had two or more crosses of pure blood in them received an average of \$51.00 more for the milk from each cow, than the feeding of the cow cost.

It will be seen from this that the man who kept cows with a good proportion of pure blood, received \$33.00 more for his work than the man who kept cows of nondescript breeding. Half a million cows in Ontario were sired by grade bulls and the men who kept them got \$33.00 each, less, for their work than they would have got had they been keeping cows with two crosses of pure blood in them.

This means that the Dairy Farmers of Ontario lost Sixteen Million Dollars by keeping poor cows which they might have otherwise gained.

Did you keep an \$18.00 cow or did you keep a \$51.00 cow?

Use Better Bulls
Chester Whites

Our sixth importation has just arrived. One litter farrowed in quarantine—sired by Champion boar Ohio State Fair—and a sow in pig to "Volunteer," Champion of Nebraska. Also ten litters sired by 1st and 2nd prize aged and champion boars at C. N. E. Unrelated pairs as a baby herd. Illustrated catalogue.

JOHN G. ANNESSER, Tilbury, Ont.

Berkshires—Boars ready for service and boar pigs, rich in the blood of Lord Premier's Successor 161500, Grand Champion, 1914, Champion Sire of 1915, 1916, 1917. His descendants have won Grand Champion honors at the largest and strongest shows of 1919. The Champion Berkshire barrows of 1918 International were double grandsons of Lord Premier's Successor. We have shipped many Berkshires to Canada with satisfaction to customers. Prices on request.

HOOD FARM, INC., Lowell, Mass.

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Pigs of different ages, both sexes, from large litters.

WELDWOOD FARM
Farmer's Advocate, London, Ontario

TAMWORTHS

Young sows, bred for June and July farrow, and boars for sale. Write or phone.

JOHN W. TODD - Corinth, Ontario

Meadow Brook Registered Yorkshires—Ten choice young boars fit service, from prize-winning stock. Prices reasonable for quick sale.

G. W. MINERS, R.R. No. 3, Exeter, Ontario

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Prospect Hill Berkshires—Young stock, either sex, for sale, from our imported sows and boars; also some from our show herd headed by our stock boar, Ringleader. Terms and prices right.

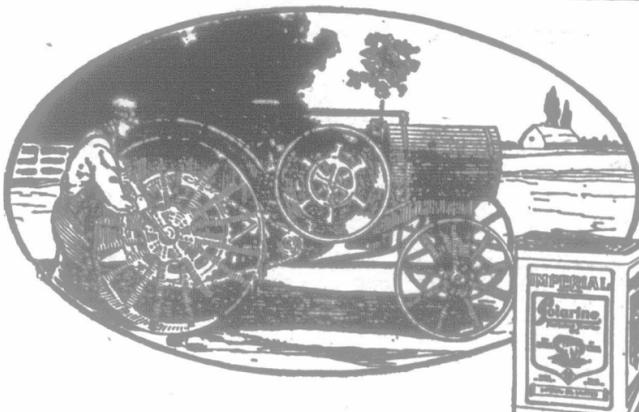
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 - Made in different consistencies.
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No matter what the size, style or type of tractor, harvester, separator, or other machine, it will do more and better work, at less cost, if it is correctly lubricated. And it will last longer.

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For correct automobile and tractor lubrication, follow the Imperial Charts of Recommendations—on display wherever Imperial Lubricants are sold. When in doubt, ask the Imperial Oil Man; or write to us.

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Langford Station on Brantford and Hamilton Radial.

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My herd has won more firsts and championships in four years showing at Toronto than all other herds of Durocs combined. Write for prices.
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Inverugie Tamworths
Young sows, bred for September and October farrow. Choice boars of all ages.
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Write to The Farmer's Advocate and Home Magazine for Instructions on how to make money by securing NEW SUBSCRIPTIONS.

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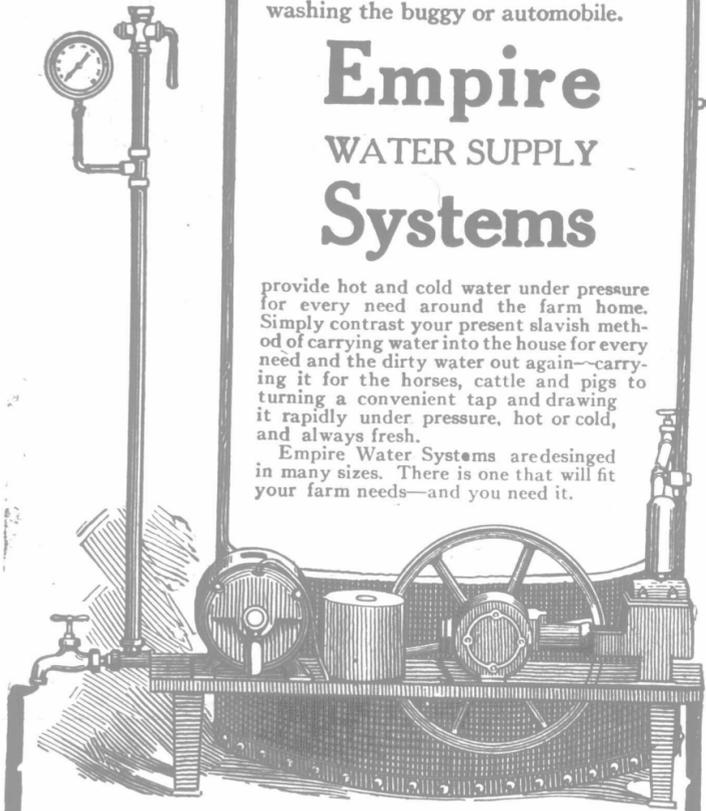
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Head Office and Factory, London, Ontario.

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110 Adelaide Street West, Toronto, Ont.

Our School Department.

How we Learned to Know Weeds at School.

(FROM THE NATURAL SCIENCE READER, BY S. B. MCCREADY.)

I did not need to go to school to learn about weeds. I knew a lot about them before I started to school. Mother tells me that I began to "help" her weed in our garden when I was about three years old. Perhaps I did pull up a few carrots and some of her asters! Somebody has to pay for a boy's education! Also I could tell what o'clock it was with a dandelion time-o'-day if somebody would count for me while I puffed and puffed. And I remember having thistles picked out of my sore feet after helping to bring the cows from the pasture—and perhaps I cried a bit because it hurt so. And burrs! It was always a question whether Collie or I could gather the most burrs about the farm. It was easier to get them off my clothes, though, than it was to tug them from the dog's matted hair. I didn't need a school teacher to introduce me to "cheeses" either. The knowledge of those mallow cart wheels was early handed down in the family.

For a long time after I did start to school I continued my practical acquaintance, and not altogether to my liking. Part of my work was to look after our garden. There always seemed to be weeds to destroy. Hoeing and pulling, hoeing and pulling! Day and night they grew. They were bold. They tried to choke the growth of everything we planted. I'm afraid mother had a hard time keeping me at my job. I didn't like it at any time, and I hated it sometimes. To have to stay at home and weed onions when one's chums are playing ball is nothing less than a slave's life. Weeding onions is hard enough at any time without that.

If mother had not been so fond of her garden and anxious to have everything looking well-kept, I think I would have run away sometimes and never come back. But a fellow wouldn't run away very far or stay away very long from a mother like mine. So I stuck to it and weeded and weeded and weeded. When mother praised me after I had done a good job, it took a lot of the soreness away. When there was a special treat of my favorite pancakes, I forgot my grievances entirely. And when mother would take some of our neighbors into the garden to show them how well everything was looking and gather some of our early lettuce or green beans for them, I was proud. I didn't like weeding any more for these reasons, but I hated it less.

I didn't know that weeds had anything to do with school or that learning had anything to do with weeds until last year. When school opened in September, we had Miss Allin for our teacher. One day she asked us to write down the names of all the weeds we knew. I found that although I knew many plants to be weeds I could name only about eight. And I knew more than most of the boys and girls. Hugh Speers and Elsie Graham knew only five. This little test made every one of us—I knew it did me—feel that we were ignorant about one of the commonest things in the world.

The next day Miss Allin suggested that we go out on a weed-discovering expedition. She thought the school yard should be the first territory to be explored. We were to take twenty-five minutes to search for weeds. Each one of the older pupils was to take one of the little pupils as a helper. The couples were to spread out and not to help one another. A list was to be made by each group of all the weeds that were known, and if any unknown weeds were found, samples of these were to be brought back when she rang the bell. Little Harry Scott worked with me. We soon realized that our school yard was an old curiosity shop for weeds. I didn't know the names of one-half of those we found. Harry knew the names of hardly any, but he could spy out new ones more quickly than I could. We had a busy time. The bell rang before we had finished our search along the fence at the back.

When we gathered in the school and announced our figures, we found that some were evidently better explorers than others. Alice Short and Janet Colville had found eight that they thought they knew and seventeen unknown weeds. Harry and I reported nine known and fifteen unknown. Chester Matthews and Tommy Chase had found only six that they knew and eight that were unknown. Miss Allin put down on the blackboard the figures given by each of the twelve couples. There was an average of about six and one-half weeds known—at least we thought we knew them—and twelve unknown for the whole class.

The next thing was to hold them up and name those that we knew. In this there were a number of mistakes made. Jamie Orr thought catnip was peppermint. Chester Matthews called a dock, a burdock. Alice Short did not know that black medick was not a clover. We also found that there was need of distinguishing names for different plants called thistles. And there were two kinds of chickweed. After we had gone over all the weeds brought in, we could count only eight of which Miss Allin said we had the right names. These were dandelion, Canada thistle, wild mustard, burdock, milkweed, ox-eye daisy, catnip and black medick. There were twenty other weeds the names of which we did not know. Who would have thought there were twenty-eight different kinds of weeds in one school yard?

(To be continued).



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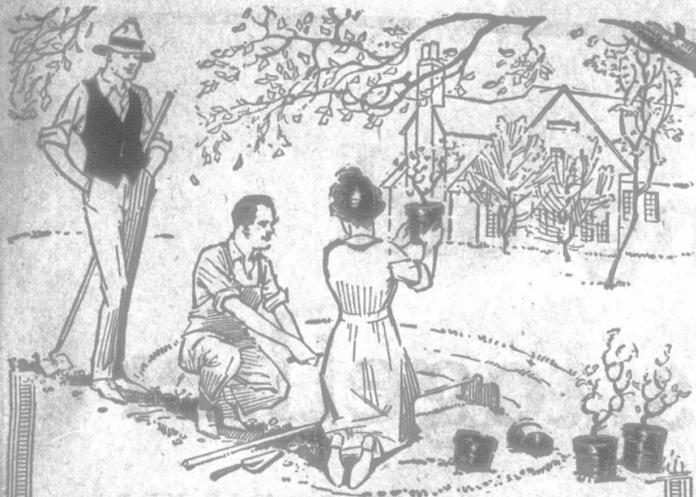
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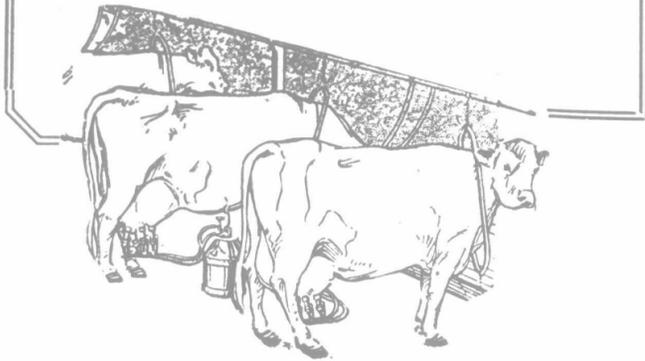


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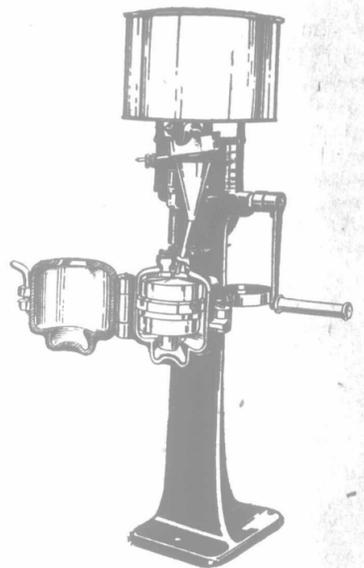
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