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

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VOL. XLVIII.

LONDON, ONTARIO, JULY 3, 1913

No. 1084

No Risk In Trying It----Has a "MONEY-BACK" Guarantee

EVEN the most careful woman need not hesitate to try PURITY FLOUR. The binding "Money-back" guarantee removes all risk of her being out one single penny if she doesn't find that

PURITY FLOUR

surpasses any other flour she has ever used. Unless the makers of PURITY FLOUR were mighty sure that it would make lighter, flakier pastry, and whiter, tastier bread for you, and for every other particular home cook, they would not stand behind it with an unqualified guarantee.

"Order a sack of PURITY FLOUR. Give it as many tests as you like. If it does not prove to be the best flour you have ever used, your money will be returned."

After you've made a batch of bread from PURITY FLOUR, count the loaves, you'll find that there are a larger number than you've been accustomed to get from ordinary flour—which goes to show the economy of using PURITY FLOUR.

If your grocer hasn't PURITY FLOUR in stock, he can get it for you.

"More Bread and Better Bread---and Better Pastry, too"

TRADE MARK
Wilkinson
REGISTERED
PNEUMATIC
ENSILAGE
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Our Climax "A" mounted is the only successful combination machine of this capacity on the market. It will cut and deliver green corn into the highest silo, or dry straw or hay into the mow. 18" mouth, rolls raise 8 inches and set close to knives, making solid compact cutting surface. Requires less power than any other of same capacity. No lost power.

Direct pneumatic delivery, no worm gears or special blower attachment. Knife wheel also carries the fans. No lodging on wheel arms, everything cut, wheel always in balance. Steel fan-case. Supplied with tools, etc. Ask your dealer about them and write for catalog. We also make a "B" machine unmounted.

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LIMITED
418 Campbell Avenue, Toronto, Ontario.



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Imperial Anti-Freezing Pump



The "Imperial" is the pump best suited for all farm purposes.

It has a large air-chamber, extending to top of stand, containing 127 1/4 cubic inches. Has 1 1/4-inch plunger-pipe instead of stuffing-box. The advantage over the stuffing-box is that it has three plunger buckets which are self-expanding, and therefore require no attention. Can be used on any sized pipe from 1 1/4 to 2 inches in diameter, tapped for 1 1/4, 1 1/2 or 2-inch pipe. On tubular wells, the plunger can be withdrawn without removing the pump.

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AYLMER, ONTARIO

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Gasoline Engines
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Weekly parties of young men now arriving. Apply:
BOYS' FARMER LEAGUE
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YOUR YEARLY DIVIDEND AS A PEASE USER
PRODUCED BY LOWER COAL BILLS AND NO REPAIR COST.

PEASE FURNACES
"ECONOMY"

DAD'S VISION

Dad was a traveller, away most of the time—and the dull days of coming winter brought him a vision. He saw his wife engaged in the dirty, dusty and unending job of trying to make the furnace heat the house, in his absence. He saw her shivering at her meals—her health impaired and the children uncomfortable, because of the lack of heat, and yet, he saw his coal bill growing and growing like the Evil Spirit in the Fairy Tale and eating a big hole in his savings.

He returned home one bitter morning, down-hearted and chilled to the bone and expected little comfort at home. Entering the house, he was greeted by his wife—bright-eyed and happy, the children playing around on the floor—he found every room warm and cosy. Astonished, he asked his wife "What's the answer?"

She took him down to the cellar, saying:—"I got this PEASE FURNACE in while you were away, and that is where all the heat comes from. Mr. Smith, next door bought his wife a new fur with the money he saved on his last year's coal bill. See that large combustion chamber and that ingenious air blast in the fire-pot that actually burns air and all the gases, that in ordinary furnaces go right up the chimney and are wasted from the coal—and that vertical shaker relieves me of the back-breaking stoop when shaking the furnace. Oh! it is lovely."

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Yes, Sir!

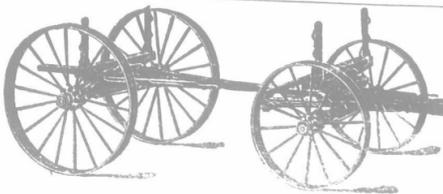
You take no chances when you USE HOMESTEAD FERTILIZERS

YOUR SOIL may be well cultivated, weather conditions may be perfect, you make sure of the seed; why take any chances with the Fertilizers? In selecting Fertilizer you cannot be any too careful. You should make sure that the goods are manufactured by a reliable firm, so that you may depend upon getting full percentage of plant food of the highest agricultural value, and in first-class mechanical condition. The best are none too good for you.

Our policy is to always lead in manufacturing Fertilizers and to furnish the best goods at the lowest price.

If all the farmers knew the merits of Homestead Fertilizers as they ought to know them, we could not make enough to supply the demand. Let us have your order this fall. If we have no agent near you, we will sell direct, bag, ton or carload, and will tell you all about our agency proposition under our consignment contract. Send postal card to-day and tell your friends to do the same.

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Saves both labor and horses. Write for catalogue and prices.
ELECTRIC WHEEL COMPANY
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Or Norman S. Knox, 47 Wellington St., East, Toronto, Ont.

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"Ohio" improvements for 1913 are radical—eclipse all previous efforts.

Don't close a deal for any Cutter and take chances with unknown makes until you see what the "Ohio" offers.

59 years' experience—absolutely dependable quality.

Famous Patented Direct Drive is secret of "Ohio" superiority—the only machine that is driven, cuts and elevates direct from main shaft. Simple, compact—low-speed fan—non-explosive—non-clogging on any cut. Cuts clean on all crops—knives can't spring.

One Lever Controls All Entire feed reverses by wood friction at finger pressure—no strain—not a gear tooth changes mesh. All gears perfectly housed. Famous "Bull-Dog" grip self-feed. Enormous half-inch cut tonnage. 60 to 250 tons a day—6 to 15 h. p. 20-year durability. Used by Experiment Stations everywhere. Guaranteed. Many big new features this year. Write for free "Ohio" catalogue today. A postal will do.

"Modern Silage Methods" a 254-page book mailed for 10c, coin or stamps.
Made By The Silver Mfg. Co., Salem, O.
Sold By John Deere Flow Co., Toronto

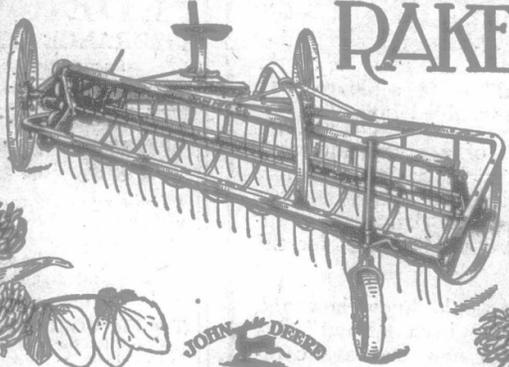
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Any size with the London Adjustable Silo Curbs. Send for Catalogue. We manufacture a complete line of Concrete Machinery. Tell us your requirements. **LONDON Concrete Machinery Co'y, Limited.** Dept. B, London, Ontario. Largest manufacturers of Concrete Machinery in Canada. 1

PRESIDENT SUSPENDER
NONE SO EASY

DAIN SIDE DELIVERY RAKE



JOHN DEERE
WELLAND, ONT.

This Machine Makes Hay WORTH MORE To Feed—To Sell

Let hay lie in the swath and the sun scorches it robbing it of its color and much of its nourishment. In the ordinary close-packed windrow, the air is shut out. But throw it up in a loose fluffy windrow with the

DAIN
[Steel Frame]

Side Delivery Rake

And the hay is evenly dried by the warm air. All the rich juices and natural color are preserved. If you sell hay, get the higher price that hay of good uniform color always commands. If you feed your hay, get the benefit of the increased feeding value to your stock.

Handles the Hay Gently

The rake bars have a slow, steady motion. The spring fingers lift the hay softly. The tender foliage parts, high in feeding value, are not shattered off and wasted.

Cures the Hay Quickly

Hay cures slowly in the swath thatch. Tedded hay falls back on the damp ground. The Dain Side Rake makes loose open windrows and exposes the damp stubble so that it dries out and warms up. This reflected heat helps cure the hay more quickly. In "catchy" weather, quick curing is of greatest importance.

Special Features

- Teeth may be raised or lowered.
- Teeth turn with gentle motion.
- Harmless to tender products.
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- All jars absorbed by cushion springs.
- Easy regulation of bevel gears.
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All Dain Hay Tools Are Money Makers

They're made by hay tool specialists, 29 years of experience back of every machine. They're the most simple, the most time and work saving, the most durable and dependable. Ask your John Deere dealer to show you the Dain line of mowers, rakes, stackers, loaders, presses, etc. Write us for new booklet of the tools in which you are interested. We'll also send you free "Better Farm Implements and How to Use Them," the most practical and valuable book ever published for farmers.

Be sure to ask for package No. T. 119

John Deere Plow Co., Limited

TORONTO OF WELLAND ONTARIO

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Ready Roofing

The natural oils in Trinidad Lake asphalt give life to Genasco and make it last. Get Genasco for all your roofs, and lay it with the Kant-leak Kleet. Write us for samples and the Good Roof Guide Book. Free.

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Send for our
Free Silo Book

A 60 page, illustrated treatise on how to prepare and preserve silage, how to select a silo, how to feed. A book worth money to farmers.

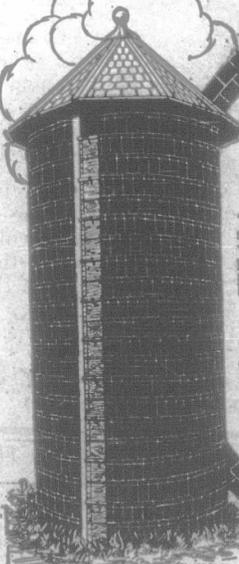
NATCO EVERLASTING SILO

The one silo that is absolutely permanent—whose construction is such that it cannot burn, cannot be blown down, will never shrink, crack or swell and that never needs repairs. Built of hollow vitrified clay blocks that keep silage sweet and palatable. The most attractive silo made. Can be built by any mason. The most economical silo in the end.

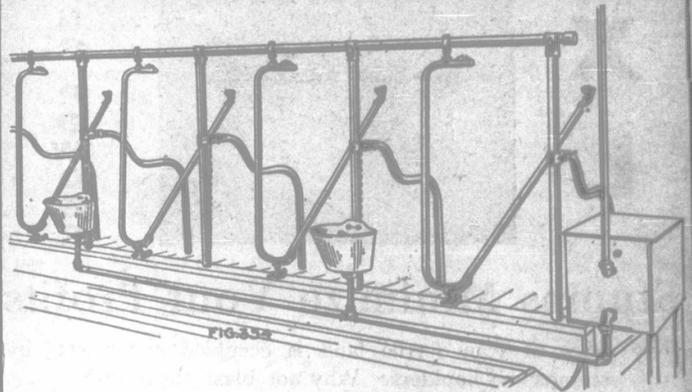
Professor Van Pelt

The famous cow judge, has an article in our Silo Book. So has Valancey E. Fuller and other authorities on feeding stock. Every stock owner should get this book and read it. Send for copy today, asking for catalog 6.

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No. of cows.....

Name.....

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QUALITY
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EFFICIENCY
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YOU GET THESE IN A

BELL PIANO

We take the time and pains to build them right.
There are many good features in the BELL never found in other makes.
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The **BELL PIANO & CO., LTD.**
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"DE LAVAL"
means a cream separator
with the "trouble" left out

That's the way a user who has had a lot of personal separator experience and the opportunity to observe a great deal of other people's experience aptly describes the meaning of the name "De Laval" on a separator—"a separator with the trouble left out."



To many buyers of a cream separator and other farm machinery there's more meaning in that simple statement of fact than in a hundred other claims and arguments that might easily be made for the De Laval.

And if anyone would know how and why the "trouble has been left out" of a De Laval machine, a new De Laval catalogue—the most complete and interesting story of the cream separator ever published—to be had for the asking, will help to make it plain. See the local agent, or address the nearest office as below.

DE LAVAL DAIRY SUPPLY CO., LIMITED
MONTREAL PETERBORO WINNIPEG VANCOUVER

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THE TWO
Greatest forces in the world to-day are Life and Death. We go through one to the other. Are you making the most of your opportunities during the former? If you are not, you are going to be a failure. We all cannot be wealthy, but by economically laying aside money for an Endowment Policy when young, we can at least assure ourselves of a comfortable old age, and should death intervene at any time, our dependents are assured of something to fall back upon.
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C X L STUMPING POWDER

The cheapest, quickest, best method known to-day for clearing land. Write at once for our Free Booklet.

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Poisonous Matches are passing away

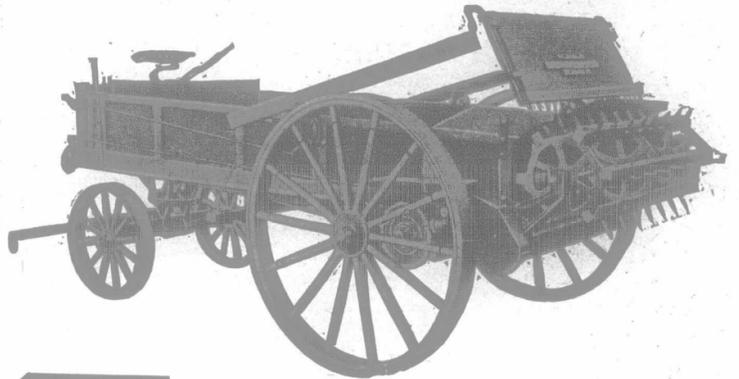
Dangerous chemicals are not used in tipping EDDY'S Ses-qui Safe Light matches. See that you get EDDY'S and no other "just as good."

Safety---in its complete sense---is absolutely guaranteed, but you must ask EDDY'S new

Your
Dealer
Has them

**"Ses-qui"
Matches**

Saving and Application of Manure



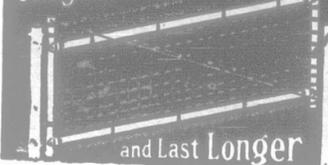
The New Kemp Manure Spreader

Made by oldest manufacturers of Manure Spreaders in the world. Draft one horse lighter than any other Spreader built. Strongest Spreader built. Only Spreader equipped with J. S. Kemp's Patented Reversible, Self-Sharpening, Graded, Flat Tooth. Handles all kinds of material found on the farm, even clear gum or rotted material. This is the only Spreader that will do it satisfactorily. Write to-day for catalogue and J. S. Kemp's article on Saving and Application of Manure.

The W. I. KEMP COMPANY, Ltd., 552 Ontario St., Stratford, Ont.

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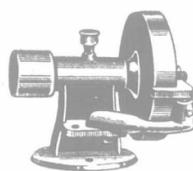


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"Clay" Gates

STRONGEST and best farm gate made. 30,000 sold in 1912. Can't sag, bend or break. Can be raised as shown. Good for Winter and Summer. Send for illustrated price list.

The CANADIAN GATE CO. Ltd.
24 Morris St., GUELPH, Ont.



Here is a Money Saver—A two in one, an Emery Machine. Just the thing a farmer needs who has power. Why do you grind the old way when a machine like this will do it in one-tenth the time? You can grind your Cultivator Points, Disc Harrow Plates and Points, Plough Points and Mower Knives so that they are just as good as new, and as good as any Machinist could do it for you. The Machine will pay for itself in a very short time. It has babbitt bearings 1.1-1.6 x 5 inches long, grease lubricator. Any size stone, 2 inches wide to any diameter can be used. This machine is furnished with an 8 x 1¼ inch stone. Weight complete about 28-lbs. Price only \$8.00. Sold direct to farmers or agents. Agents wanted. Write for testimonials to—
J. G. CRESS, Machinist, Waterloo, Ont.

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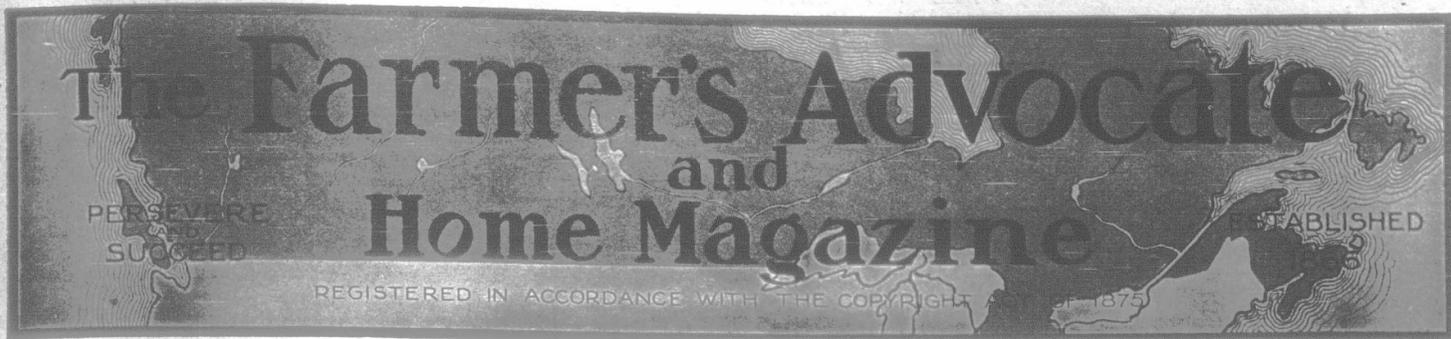
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Vol. XLVIII.

LONDON, ONTARIO, JULY 3, 1913.

No. 1084

EDITORIAL

Corn is many laps ahead of where it was this time last year.

How puny is man's best effort compared to the majesty of a storm!

How many thousand barrels of milk did that last big rain represent?

Like a benediction from Heaven is 'a warm, gentle thunderstorm after a drouth.

To let good haying weather go by after the clover has reached full bloom is "tempting Providence."

Strips of alfalfa are suggested as fireguards for prairie farmsteads, by a writer in "Conservation," who explains that it will not burn.

Many a drouth-stricken farmer has breathed a prayer of hope as the Militia went to camp for its annual June drill.

According to the teaching of a recent book, the real function of the agricultural scientist is not to teach the how, but the why of farming.

A rain which dampens cultivated land to a depth of six or seven inches, may moisten the soil in a dense meadow or grain field hardly more than two or three.

An American magazine writer has figured out that the birth of every child, no matter of what order, adds \$849 to the aggregate value of New York real estate.

After all is said and done, it appears to be the water (well-warmed) that makes the crop. A ton of hay is said to pump 500 tons of water out of the soil before it is ready for the mower.

"Why," queries the author of "The Farmer of To-morrow", "is the farmer of Holland able to produce 50 bushels of wheat per acre, while the Dakota man rarely produces above 12 bushels unless the heavens are especially propitious.

We can afford practical education for the Indians, which is right enough, but when proposals are urged to modify public school education so as to make it meet the needs of the masses, taxpayers are prone to shake their heads at the possibility of extra expense.

In 1912, says Hon. J. S. Duff, Provincial Minister of Agriculture, in his last annual report, a total of 17,212 acres in the Province was surveyed for tile drains and 2,278 miles of drain laid, while 70 demonstrations were held under the auspices of the Department to show the possibilities of drainage.

Peter McArthur is afraid that too many of our thinkers work in the gloom of libraries instead of in Nature's sun parlor. We agree. The lore of the ages is like a dry seed, which needs to be germinated and nurtured by the sunlight of direct inspiration. Books are rich in knowledge and thought, but mere book-worm philosophy is a sorry excuse for wisdom.

Abate the Dust Nuisance.

The difficulty of getting farmers to take united action on any matter affecting their interests is very well illustrated by the passivity with which the dust nuisance is borne. This evil, which has on many highways turned the pleasure of country driving into a nauseating and clothes-injuring ordeal, has been many times aggravated by automobile and motor-cycle traffic. Automobiles as yet are owned chiefly by foreign tourists and by city men who have contributed nothing towards the maintenance of most of our roads, and are even yet paying only a little indirectly through the medium of provincial grants and other channels. Their machines dart across the country, sometimes endangering life and property, destroying the highways as fast as we can build them, and raising dense clouds of dust which follow the road for as much as a mile after the car, creating distressful conditions for occupants of slower-going vehicles or for pedestrians to pass through. Dwellings situated near the roads are daily favored with sickening doses of pulverized road, while fruit, vegetable and field crops suffer heavily. No wonder Prince Edward Island farmers voted in plebiscite to continue the policy of exclusion. There are methods of oiling roads which tend to minify the evil, but treatment is costly.

There is a saying that those who get people into trouble should help people out of it. Applying the principle we should say that those who make themselves a nuisance to others on the highway should do all in their power to abate it. In still plainer terms, we consider the case is exceedingly strong for taxation of automobile traffic on a basis that will yield some revenue worth while, said revenue to be used for road construction and oiling or other treatment to keep down dust. Of course the way to levy the tax is to charge a good round rate for the licenses. Fifty to a hundred and fifty or two hundred dollars per car per annum, depending upon the horse power, would seem to be reasonable, and might be divided among municipalities interested, ear-marked for purposes of road improvement. Would it, on the average, more than compensate for the manifold injury resulting from motor traffic on the roads? If not why not impose it? What do you think about this, and what have you said to your provincial member?

What to Do with the Town Boy.

What to do with the town boy in the holidays appears to be about as serious a conundrum as How to keep the boy on the farm. The superintendent of one of the largest industrial concerns in Canada tells "The Farmer's Advocate" that at this season the company is pestered with applications from parents who want a couple of month's clerical employment for their boys, of say twelve to eighteen years old, in order to keep them off the street and out of mischief. The spirit of youth in these lads will assert itself. They must have adventure, or, at least, occupation. As a means of education, "the street" with its multiplying temptations, grows steadily worse. A good many people, like the superintendent quoted, are beginning to consider the long holidays rather a curse than a benefit to the town boy, but apparently necessary under the present school curriculum overloaded with book subjects and so-called "information" most of which, though duly attested by over-estimated

"exams," is forgotten while the youth is being really trained for usefulness in the school of life. Who wonders that boys and girls hanker for the "last day" of the term, which is the signal for tossing the big school bag into the garret. One of these days we may see evolved a system of industrial school training that will appeal to the activities of boys and girls, reducing the need and desire for long vacations, and a system of enlarged and supervised play grounds with wholesome out-door accompaniment that will divide interest with the nerve-racking, frivolous and mercenary moving-picture show. The appeal for some genteel, clerical job for the young hopeful instead of mechanical occupation is disheartening, but just the fruitage that might be looked for from our educational policies. Not having been taught to use their hands, most of them would be of comparatively little use in a hive of industry. The suggestion has been made that some plan might be worked out whereby these boys could be given employment cutting weeds on rural roads or possibly working at such jobs as hoeing or spudding thistles on the farms, but the problem of getting them "in and out" and of supervision present difficulties not easy of solution, unless resolutely handled by the parents themselves with the cultivation of a desire for country life. The busy farmer would hardly relish the idea of undertaking direction of a "bunch of town boys" for a few hours daily, though he might not be unwilling in case of those he knew personally to give a civil boy willing to learn a chance to improve himself in holiday time.

The complaint above referred to is by no means confined to one locality, but we believe to be wide-spread. It was expressed in the following enquiry the other day in the Mail and Empire of Toronto:—

"There is always a reactionary tendency amongst the young pent up in the cities. There is the heaven-born desire for country life. Is it not possible to assist the realization of the longing for a successful and happy farm life amongst our town-born boys and girls? The college at Guelph is too advanced for them, while there seems room for farm homes for younger people, and even for farms where, during the holidays, a strenuous and happy life might be advantageously spent."

In reply, "Flaneur," a staff contributor of the Mail and Empire concedes the unusual importance of the matter as one "vital to our well being and solid progress as an agricultural people. To any well-informed and thinking man the farm appeals as the strong and solid foundation on which rests our national prosperity. If the supply of intelligent, well-informed and enterprising young men and women requisite for maintaining and developing the farm land of Canada is diminishing, or is being diverted to other activities, then the Canadian farm is like a human body underfed and weakened by the loss of a full supply of rich, pure and life-giving food. We need more—far more—strong, healthy, intelligent and interested young men and women on our farms. And it would be an act of national wisdom were our Governments to provide some practical means whereby young boys and girls could be interested, trained and prepared for farm work."

A farm conducted on the lines of the Mount Elgin Industrial Institution, described in last week's Farmer's Advocate, would seem to fill the bill for boys and girls of the country as well as the town.

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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

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It is impartial and independent of all cliques and parties,
handsomely illustrated with original engravings, and fur-
nishes the most practical, reliable and profitable informa-
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THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

Nature's Diary.

By A. B. Klugh, M. A.

BY THE SEASIDE.

To the nature-student a trip to the sea coast is a revelation. Here he finds forms totally different from those occurring inland. The very water strikes him at first as unique in its behavior; at one time it reaches well up on to the shore, six hours later it is a long way out and great stretches of sand or mud or rocks are exposed. Thus the state of the tide makes a wonderful difference in the appearance of the country.

Let us visit a rocky shore at low tide. We find the rocks covered with large, brown, slippery sea-weeds. These belong to the lowest divisions of plants—the Algae. One of the commonest kinds bears little bladders which act as floats, and keep it upright when it is covered with water.

Lying on the rocks we see numbers of Starfish, animals with five rays radiating from the centre. If we turn one over we see that down the middle of each ray are two rows of projections; these are the "tube-feet," by which the Starfish moves, breathes, and feels. They can be protruded, or contracted, depending upon the amount of water which is forced into them.

The colors of the common Starfish vary a good deal; some are whitish, some pink, and others are greenish gray.

The Starfish has a peculiar method of feeding as it turns its stomach inside out over its prey and digests it.

Further down towards extreme low-tide mark we come across a colony of sea urchins, almost spherical forms covered with long, movable spines.

On the rocks are the limpets, flattish, cone-shaped shells, which stick very closely to the rock.

On the mud between the rocks we find shells quite different from those found inland. There are the whelks with their spiralled shell, the periwinkles, and the large sea snail.

In pools left by the retreating tide between the rocks we find the beautiful Sea Anemones, animals short-cylindrical in form, with several rows of feathery tentacles around the top. They are most exquisitely colored—pink, purple, yellow,

red, and mauve, different individuals being of different colors. Here we find also the Sea Cucumbers, so named from their resemblance in their usual condition to that vegetable. But they can assume any shape, from long and thin to perfectly spherical; and are often seen "hour-glass shape," that is, contracted in the middle. In these tide-pools we also find a sea-weed which looks almost exactly like a lettuce, and is termed the sea-lettuce.

Under ledges of the rocks near low-tide mark we see the Sea-orange, a form allied to the Sea Cucumber, but quite different in appearance. It is shaped like half an orange when it is contracted, as it is when the tide is out. But when covered with water it has at one end a bunch of plume-like, yellow tentacles.

At low-tide mark we also find an interesting lot of sea-weeds, tufts of bright green forms, like fine grass; red-brown tubular species; forms with large, brown blades, known as "devil's aprons"; fine, hair-like species, bright red in color; sea-weeds which are hard in texture like corals, and are pink and white in color; and the dark-red, flat-bladed Alga, known as Dulse. This last species is gathered, dried, and eaten.

In the mud between the rocks we find the Clams, marine species, which differ from our fresh water Clams in possessing long siphons, through which the water is taken in and expelled, and which lie buried in the mud with the siphons projecting when they are covered with water. It is these marine Clams which are used in the "Clam Chowders" for which many sea-side resorts are famous.

Lying on the top of the mud, usually with their tails still in their burrows, are the large worms called Nereis, shiny green above and red beneath.

Hopping about among the wet sea-weed we see little crustaceans which resemble miniature shrimps.

In addition to the forms of life which we have mentioned, there are hundreds of species which have scientific names only, in fact in this narrow strip of shore we have a whole world, a world very interesting to investigate, and totally new to the visitor from inland.

THE HORSE.

The fall exhibitions are now getting closer. Does the colt lead well and behave as an educated colt should?

In reply to a question in the British House of Commons, the Secretary of War stated that as few as possible docked horses were being purchased for the army; and an order has been issued that no horses docked should be accepted after three years.

When the stallion is placed in his home stable after the breeding season is over he needs exercise just as much as at any other time. Too often he is neglected, poorly fed, and badly groomed. He cannot be expected to continue a first-class breeding horse if he is only cared for three or four months out of the year, and is forced to rough it the remainder of the time.

It costs a certain amount of money to keep a working horse every year. When horses are high in price every mare owner seeks to avail himself of the opportunity to raise colts, but when the price drops fewer colts are raised. Now if brood mares are kept to do the farm work it is just as wise to breed them when the market is easy as any other time. The life of the horse is short and very soon younger animals will be needed to take their places. Surely they can be raised more cheaply than they can be bought, and surely a profit may be made on them to reduce the cost of keeping the workers.

Here is a bit of good advice taken from the rules of the Boston Work-Horse Parade Association.

Give a bran mash Saturday night or Sunday morn, and on Wednesday night also, if work is slack. Put very little salt in the mash.

Let the horse have a chance to roll as often as possible; it will rest and refresh him.

Do not forget to salt the horse once a week; or, better yet, keep salt always before him. He knows best how much he needs.

Bring your horse in cool and breathing easily. If he comes in hot, he will sweat in the stable, and the sudden stoppage of hard work is bad for his feet.

In hot weather or in drawing heavy loads, watch your horse's breathing. If he breathes hard or short and quick it is time to stop.

Remember that the horse is the most nervous of all animals. Remember that he will be contented or miserable accordingly as you treat him.

The Lesser of Two Evils.

While looking at a first-class pure-bred Clydesdale filly a short time ago, the owner said, "What do you think of her bone? Many who look at her say, 'What a pity she hasn't more bone.'" This brought up the point, "Which is the greater fault—to have bone a trifle light but of the best possible quality, or to have bone in abundance, but coarse and badly off in quality?" The mare in question was not heavy-boned, neither was she very light in this particular, but a somewhat sparse feather made her appear a little deficient in size of bone. Feather is sometimes deceiving. Very often what appears to be extra heavy bone gives the impression simply because the size of the limb is augmented by a profusion of long, coarse, curly hair. But to get back to the point—small bone of good quality or large bone of rather questionable quality—by all means choose the former. Clean, flat, flinty bone is strong, and is not so likely to become blemished as bone of the coarse, soft order. For work the clean-boned animal wins every time, and, for breeding purposes has a large margin on the coarse-limbed animal. The light, clean bone may be increased in size in the offspring by mating with a heavier-boned animal whose bone is also of high quality, but mate the coarse-boned animal with what you will, a degree of coarseness is likely to crop out in the progeny. Of the two evils the lesser is the fine, clean bone, but it must always be remembered that it is possible to get a sufficient quantity of bone, and, at the same time, bone of first quality in the same animal. This should be the aim of all horse breeding. Nevertheless, few indeed are the horses without some defects, and it often becomes necessary to choose between certain peculiarities of type and conformation, neither of which come up to the highest degree of perfection. Horse matters must always be weighed carefully.

The Big Gelding.

In this department of this issue is illustrated a massive gelding. He is of the Shire breed. There are other breeds which produce big geldings as well as the Shire. One of the best features of horse breeding, or, in fact, any live stock breeding, is that there are so many really good breeds that one may be found to suit the fancy of each enthusiast. If a man prefers an abundance of hair on the horse's legs and massive bone, he has a horse to his liking in the Shire. If he likes just a fair amount of hair and a tidy, trim horse, he is satisfied with the Clydesdale. If he wants a drafter with no hair on his limbs and a big, heavy horse, he gets the Percheron or Belgian. All of these breeds have produced and are still producing big, strong, heavy geldings. No matter what draft breed is preferred, the breeder should always aim to produce the big gelding for the market, and the big filly to stay in the stud or be sold to the farmer or smaller breeder for breeding purposes. Keep your ideal set on size in the drafter, and, at the same time, do not forget quality. The small draft horse does not fill the bill on the city streets where heavy loads must be moved six days a week. Aim to make the individuals of all our breeds of draft horses bigger and better than ever.

What about the Two-year-old?

We wonder how many owners of real good two-year-old fillies have been halting between two opinions this season, as to whether or not it is advisable to breed their mares. All have noted cases of success, and also of failure resulting from the practice. This success and failure is largely responsible for the difference of opinion which now exists in the minds of horsemen, as to the merits and demerits of the practice. No set rule can be laid down regarding this subject. If a mare is a little undersized or is likely to be called upon to do a great deal of heavy work in her three-year-old form, generally speaking, she would be better not bred. If the horseman does not feel able to give the mare a little extra consideration during her first period of pregnancy and while she is nursing her foal, breeding had better be deferred. On the other hand, if the filly is a well-grown two-year-old and is in good health and condition, and other horses are plentiful enough on the farm to permit of her doing little work while her foal is nursing, her owner need have no fear regarding breeding her at this early age. Many of the best breeding mares dropped their first foals when three years of age. They were good mares when bred, and got good care as breeders. Just now, when the season is getting a little past its heaviest, is not a bad time to breed any mare, the two-year-old not excepted.

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LIVE STOCK.

This is a good time to get the sows which have farrowed late the past spring bred again so as to produce their fall litters before the weather gets too cold.

If it is impossible to get the pigs out in a grass plot, at least keep them supplied with green feed by throwing into their pen some freshly-cut alfalfa or red clover each day. It will lower the cost of gains.

Keep the watering troughs well supplied during the hot weather. It is impossible to estimate the advantage of an abundance of fresh water to the grazing stock, especially when the pastures become dry and parched.

When beef stock has become so scarce that leading American dairy papers, like Hoard's Dairyman, commence talking about raising dairy-bred calves for beef, it begins to look like a pretty good proposition for the double-decker cow.

Be sure to keep water in the calf stall or paddock. Very often the comparatively small allowance of skim milk which the calf gets is thought to be enough drink for him. Not so. A healthy growing calf will take and requires considerable water during the summer season.

The very hot days of the midsummer season, and the myriads of flies which pester the cattle should impress the advisability of keeping the young calves in a darkened box stall during the day, feeding liberally, and allowing out in a small field or good-sized paddock at night when it is cooler and the flies are less troublesome.

Pine tar is an excellent preventive from attacks of the gadfly in sheep. A little dropped on their noses throughout the season does the trick. Some sheep men arrange their salting troughs so that as the sheep inserts her nose to lick the salt she rubs it against some of this soft tar. In this manner tar is kept on the nose continuously. It will remain on however for some time if the sheep are caught and the top of the nose well covered with the tar.

Old beans are more valuable than new ones, says a leaflet of the English Board of Agriculture. They are suitable to mix with oats for feeding. Large quantities given to milk cows tend to prevent the cream from churning in a satisfactory manner. A few whole beans are very useful when given to growing store pigs, but the use of large quantities of bean meal when fattening them should be avoided or the lean meat will be hard and the bacon when cured will not be of the highest quality.

Rape Pasture for Hogs.

In reply to a question as to the best forage crop for hogs, sent out over the State of Missouri, the Columbia experiment station had twelve correspondents name rape. After many years' experience with rape as a hog pasture Prof. Carlyle, of the Wisconsin Station, concluded that "With pigs from four to ten months old, representing the various breeds of swine, an acre of rape, when properly grown, has a feeding value, when combined with a ration of corn and shorts, equivalent to 2,436 pounds of the mixture of these grain feeds.

"Rape is a better green forage for growing pigs than good clover pasture, the pigs fed upon rape having made on the average 100 pounds of gain on 33.5 pounds less grain than was required by the pigs fed on clover pasture.

"Rape should be sown for this purpose in drills thirty inches apart to facilitate cultivation of the ground after each crop of forage is eaten off.

"Hogs should not be turned in until the crop is twelve to fourteen inches high, and should be prevented from rooting while pasturing rape.

"Rape alone is not a satisfactory feed. Hogs will just about maintain their weight on it."

The value of rape, as compared with clover and tested at Wisconsin, is shown in this table.

	1898		1899	
	Rape	Clover	Rape	Clover
No. of pigs	19	19	21.0	21.0
Initial weight	111	110	101.9	101.8
Grain per 100 lbs. gain	391	439	332.0	346.0
Daily gain per pig	.87	.78	1.27	1.22

A saving of grain is shown as well as more rapid gains when rape was used as pasturage.

At the Kansas Station a number of 52-pound pigs were tested on rape and alfalfa. The results are shown in the following table:

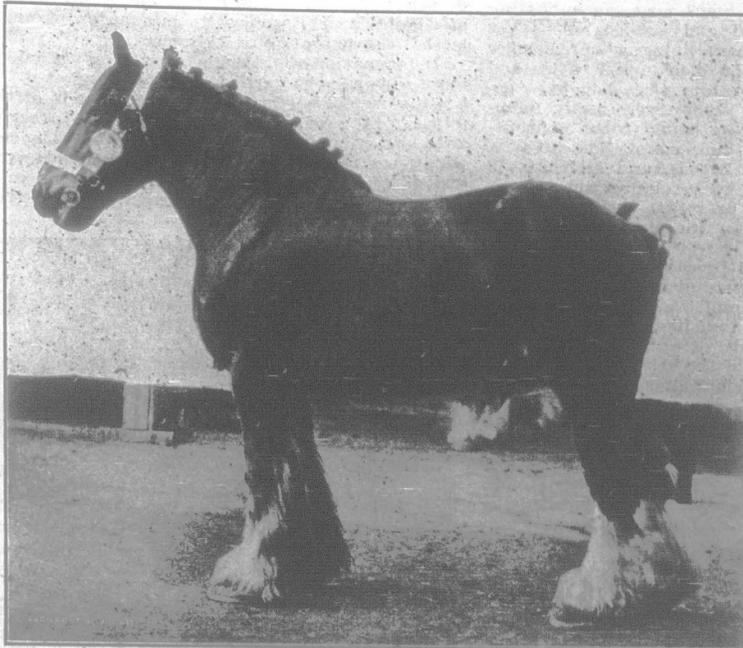
Pasture	Gain per pig	Average daily gain	Grain per 100 lbs. gain
Rape	107.6	1.09	301
Alfalfa	107.8	1.10	300

The pigs on rape pasture made almost exactly the same gains as those on alfalfa pasture,

disked into the ground. When sown in drills, about two or three pounds of seed per acre is sufficient, but if sown broadcast, three to five pounds, and sometimes more are needed.

"When pasturing rape, the hogs should not be turned on until the plants are twelve to fourteen inches or, better still, sixteen to eighteen inches high. When pastured before this time the hogs pull up the young plants and kill them, thus destroying the pasture. Rape should not be pastured so closely that nothing except the bare stalk remains. A few leaves or parts of leaves should be left to start new growth. If planted in drills and cultivated after each period of pasturing, three crops may be obtained from each set of plants yearly.

"Rape can be sown so as to furnish a forage at any time of the growing season, and if necessary can be used as the principal pasture for hogs. It must not, however, be pastured too closely, and must be given opportunity to get well started after being pastured. The amount of land sown to rape need not be large, because it is worthless except for pasture or soiling, and one acre will pasture fifteen to twenty hogs for a period of two or three months."



An English Cart Horse

The champion gelding at the London Shire Show, 1913.

with the same amount of grain required to make a pound of gain.

Commenting on these results the Missouri bulletin says:

"Since experience shows that for a short period rape makes a splendid hog pasture, there is no reason for a lack of forage when clover is winter-killed, or land is pastured too heavily, because rape can be sown very early or very late, thus making pastures at any time of the spring, summer or fall.

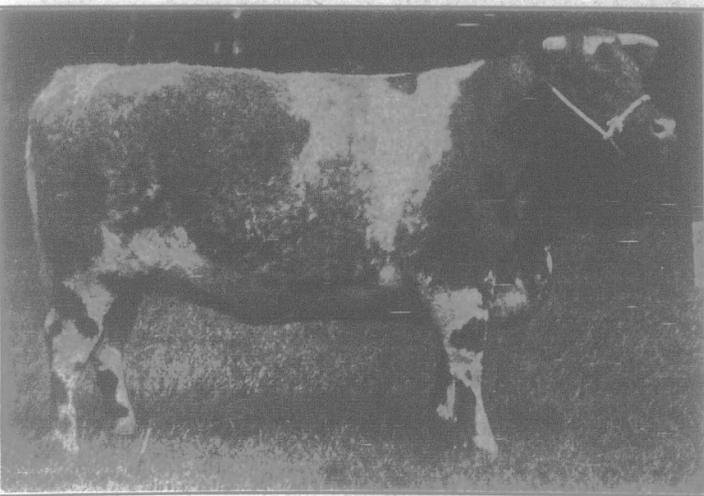
"Rape is a plant of the cabbage family, closely resembling it in manner of growth and character of forage. It is a rather cool-weather plant, and can be sown very early in spring, as soon as there is no danger of a severe frost. It will endure a pretty severe frost in the fall before it is injured; in fact, it may often be used for pasture after it has been partly frozen, provided stock is kept off when it is frozen.

Black-nosed Cattle.

Quite frequently one sees a beef animal or a pure-bred of some of the beef breeds which should have a light-colored nose, but whose nose is black. Several Shorthorn cattle are found each year with this defect. Of course, this can be no objection in black-nosed breeds of recognized merit. A writer in the Live Stock Journal believes that:

"In most cases the objection to the black nose is well founded where the animal is needed for grazing; but if it is not derived from a good black-nosed breed it is not objectionable. If it comes from a Channel Island cross, it is not difficult to trace, because as long as there is black on the muzzle the "horse-shoe" marking can be traced. This is often not objectionable, but rather the reverse, in dairy cattle, as a streak of Channel Island blood in a cow of bigger breed often im-

proves its value for milking purposes. Not at all a bad beast may be found with a black nose where it traces back to a cross with a good Welsh breed. As a matter of fact, a black nose now-a-days does not necessarily indicate that the animal is unthrifty by descent. The origin of the objection to the black nose dates back a very long time; at any rate, as long as any care has been taken in the improvement of breeds, though the cause for the objection was not removed, even from English cattle, until comparatively recent years. England had its black-nosed brindle breeds, like the Irish, unthrifty and unprofitable to keep; and when the Shorthorn, with its white nose, began to influence local breeds throughout the country,



Windsor Belle.

Champion Shorthorn heifer at the Royal Counties Show in England. Owned by H. M. the King.

"It is a gross feeder, and does best on very fertile or heavily manured soil, but does fairly well where corn and wheat thrive. It is a very rapid grower, and if sown alone on good land, will be sixteen to eighteen inches high in six to eight weeks. When sowing rape alone it is best to have a well-prepared seed bed, well pulverized, to sow in drills two and one-half feet apart, and cultivate until eight inches high. It may also be sown broadcast, and either harrowed or

it was seen how much better they did than those with colored noses. The Hereford and other good breeds soon had their influence, so that the objection became established. A brindle-coated or a black-nosed beast was at once objected to in a bunch of cattle, just as speckled-faced sheep were unpopular because they showed that the influence of improving breeds had not stamped out the features of the unimproved heath breeds, which were so slow in maturing and

fattening, and which were so commonly distributed about the country. These signs of unimproved blood in cattle or sheep indicated that there had been little improved blood mixed with them, or that they had reverted; in either case, the animal was a poor thriver.

"Everyone knows that the old wild white breeds of cattle, such as the Chillingham, had black muzzles, and though breeds had been improved from them the black muzzle remained, until the general improvement of the last century so gradually established breeds vastly better, and in course of time the black nose, as indicating the older type, was bred and weeded out. Yet there are plenty of farmers living who remember when they had to cull the black-nosed cattle and speckled-faced sheep from lots they bought, because they knew that they were really unimproved, and that they were bound to be unprofitable. To-day the same thing merely indicates a cross between recognized breeds, and all that is necessary is to be able to recognize what those breeds are, and to buy or refuse them, as they think they are suitable for the purposes to which they will be put."

Black muzzles in such breeds as Herefords and Shorthorns bred pure must, of course be a reversion of type. It is simply a case of the old types used years ago in founding the breeds cropping up again as a result of atavism. We have known Shorthorn cattle of the best strains to show this defect, and the black nose was the only indication of inferiority, the cattle being of a high-class type, and right in every other way. Of course, breeders do not care to use such stock, and rightly so, for there is nothing to be gained by perpetuating black muzzles. No one knows but that if such cattle were bred their offspring might have some other defects common to their remote ancestry. But again they might not ever show the black point in question. At any rate it is well to avoid the black nose in breeding stock of white-nosed breeds.

Treatments for Tapeworms in Sheep

In the 1912 report of the Ontario Agricultural College, Prof. G. E. Day outlines several methods of treating sheep, or rather lambs, for tape worm. For many years trouble from this cause had been prevalent in the college flock, but during recent years its ravages have been stopped by treating all lambs before symptoms of the disease appear. If treatment is delayed until the lambs become unthrifty, many of the lambs never make a satisfactory recovery, and become stunted in their growth. Of several different remedies tried the following are the principal:

Gasoline:—Mix gasoline and milk in proportion of 1 to 7. Dose, 3 ounces of mixture for 100 pounds weight of sheep.

Turpentine: Dose, 1 teaspoonful in milk.

Areca Nut: Dose, 1 teaspoonful in milk.

Oil of Male Shield Fern: Dose, 1 teaspoonful in 2 ounces of castor oil.

Copper sulphate (blue vitriol) Dissolve one pound (avoirdupois) of copper sulphate, blue crystals, in 2 quarts of boiling water, which will constitute stock solution. Add to the stock solution 7 and four-fifths gallons of water to dilute ready for use. To dilute in small quantities, add a little short of a pint of water (39-40ths of a pint) to each fluid ounce of the stock solution. Dose of diluted solution:—Lambs, 1 month old, two-thirds of a fluid ounce. Increase the dose by two-thirds of a fluid ounce for every month the lamb is older than one month up to 4 months of age. Lambs, 5 months or older, require 3 fluid ounces.

Fast lambs 15 to 18 hours before giving medicine, and give no water or feed for six hours after the dose is administered. These directions apply to all remedies. It is little use to give medicine for worms without first fasting the animals.

Prof. Day reports very fair results from nearly all the remedies mentioned, but the oil of male shield fern with castor oil proved very effective, and appears to be entirely harmless to the animals. The main objection to it is the cost which runs in the neighborhood of five cents per animal for each treatment.

Copper sulphate also has proved very effective, and is very cheap, the cost being a mere trifle for a large flock. It is a poisonous substance, and it will not do to repeat the dose in a few days as is sometimes done with other preparations. At least a week should be allowed to elapse between treatments, if a second treatment is given.

At Guelph two treatments are usually given about a month apart. When drenching a lamb be sure that it is standing in a natural position on its feet (not in a crouching position). Hold the animal's head so that the nose is no higher than the eyes, and pour the liquid very slowly.

A Few Useful Hints.

The following outline of preventive and curative treatments of some of the common stock ailments which confront the breeder and feeder are sent out by Charles Keene, Professor of comparative medicine, San Francisco Veterinary College:

Disturbances in digestion are by far the most common ailments of cows. On the first signs of indisposition in a cow the food should be investigated, and at this time if a saline purgative is administered the attack will often be averted. A drench consisting of one to one and a half pounds of Glauber's or Epsom salts in solution of water is the best purgative at this time.

Inflammation of udder in cows is often infectious and can be carried from the affected to healthy members of the herd on the hands of the milkers. A good practice to follow is to segregate any animal showing disease of the udder until it has recovered. The milker should wash and disinfect his hands after milking such a cow.

Depraved appetite (pica) in cows, in which they

before and after milking. Several applications of zinc ointment to sore teats, after cleaning them, will relieve most cases.

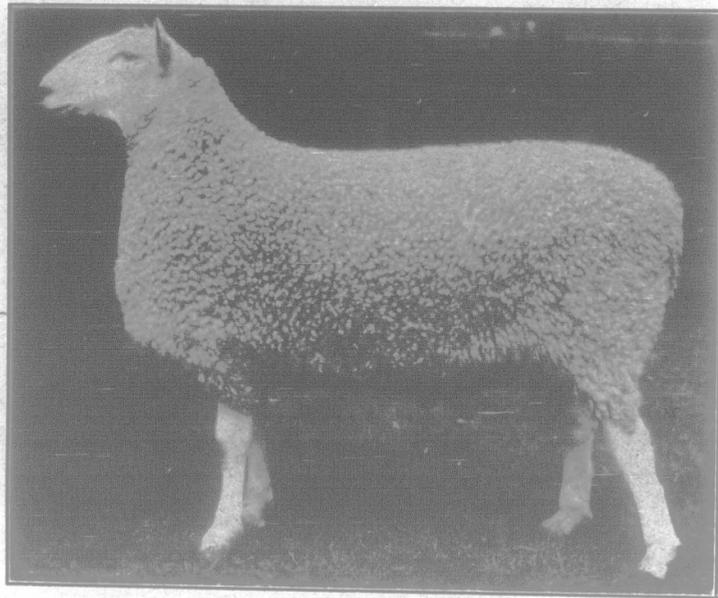
Bleeding from the navel cord in a calf may be stopped by tying it firmly with a clean piece of string. Before tying always be careful to examine the cord to see that it does not contain a loop of the bowel.

Age of Breeding Sows.

A California bulletin, discussing the comparative values of young and old sows as breeders, says:

"Some breeders have an idea that sows one year of age are more desirable than older sows for breeding purposes, but such an idea is not justified by experiment. An average of the weights of pigs at farrowing time at this and other experiment stations shows the following: That sows two years old, or older, produced 21 per cent more pigs than yearling sows, that sows two years old, or older, produced pigs 12 per cent heavier than those produced by the yearling sows. Such statistics show that it is a mistake to sacrifice the older sows and depend on young, untried gilts. It is true that old sows often become so heavy or so fat that they lie on many of their young pigs, or they get deaf or blind, or both, which helps to contribute to the same trouble. When their usefulness is impaired in this way, they should be sold, but not until then."

This is a point worth noting. We have known pig feeders to keep young sows from a litter and breed them early, taking one or two litters from them and then feeding them off, repeating the practice with other young sows. Practical experience proves that smaller litters and smaller pigs are farrowed by young sows than by mature sows. Think this over before deciding to fat the old sow which is still a producer of large litters. Her worth is proven. The young sow must be tried out.



Champion Border Leicester Ram

The best of the breed shown at Glasgow, 1913.

eat dirt, gravel, etc., is generally the forerunner of a more serious affection of the bones, and is due to a deficiency of bone-forming elements in the food. Finely ground bone meal added to the food assists in overcoming this affection. Such cows should also have access to a piece of rock salt where it can be licked at will.

Young calves suffer from a variety of diseases, such as inflammation of the joints (joint-ill), diarrhoea, and pneumonia, that are due to infection taking place through the unhealed umbilical cord (navel string). These affections can be stopped by a thorough cleaning and disinfection of the calf barn, and washing the navel with a 3 per cent. solution of creolin, after which paint it with tincture of iodine.

Cows lose their calves (abort) from a variety of causes. However, infectious abortion is very prevalent in the dairy herds of this country. For this reason, take no chances. Isolate immediately every cow as soon as she shows signs of impending abortion. When she aborts burn the calf and its membranes. Clean up and disinfect all discharges. Wash her hind parts with a 3 per cent. solution of creolin. Keep her out of the herd until all signs of discharges have disappeared.

Never use force to remove a calf from a cow unless you are sure the calf is in the right position. Undue force used when the calf is in some positions will result in severe laceration and tearing of the cow and might result in death of the latter.

Flooding (excessive bleeding) which sometimes occurs after calving, can often be controlled by dashing cold water over the loins of the cow.

Bloody milk is caused by injury to or disease of the udder; also by functional derangement of the udder due to excitement in heat, eating of irritant plants, etc. In all cases a reduction in rations and the administration of a purgative dose of Glauber's or Epsom Salts is advisable. Milk sometimes becomes red tinged after standing a while. This latter condition is due to the presence of a micro-organism that enters the milk after milking. Thorough attention to cleanliness and sterilization of milk utensils will prevent the condition.

Mastitis (inflammation of the udder) may be often induced in a cow by rough milking when the teats are sore or chapped. Chapped teats may be relieved by gentle rubbing with vaseline

THE FARM.

Corn Cultivation.

Practical suggestions on corn cultivation are contained in U. S. Farmers' Bulletin 537 entitled "How to Grow an Acre of Corn." We quote a few of the pithiest:

To produce a maximum yield, corn roots require warmth, a certain amount of air and considerable moisture. Corn is cultivated in order to supply these requirements.

Too much water and too little air in the soil as surely prevent growth as too much air and too little water.

Air is deficient in saturated soils, and on such soils corn plants become yellow and unproductive.

Good cultivation at the proper time admits air, lessens the escape of water from the subsoil, causes the soil to become warmer and stimulates a better growth.

Weeds should be killed as soon as they begin to grow, but the primary reason for cultivating is to maintain the proper proportion of air and moisture in the soil.

If prolonged and heavy rains pack the soil to a great depth, a deep cultivation can sometimes be given to advantage while the corn is less than a foot tall.

Soon after the plants become a foot tall their roots reach across the spaces between rows, and cultivation should be not deeper than two inches. A deeper cultivation is likely to reduce the yield.

A shallow cultivation should be given as soon after every heavy rain as the land becomes in good workable condition. The cultivation should be given with such implements and in such a manner as to leave the soil in a fine, loose, smooth condition.

It is never safe to allow the soil surface to become hard and too dry to cultivate to the best advantage. Continued dry weather with the soil in this condition is certain to reduce the

yield materially, and cultivating such soil results in still greater injury.

Until the silking period the soil surface should be kept in a fine, loose condition, so that walking on it when dry it is felt to give under the feet and distinct footprints are made.

Shallow cultivations given even as late as silking time are often as valuable as earlier cultivations.

Weeds growing in the corn at silking time reduce the yields very materially, as has been conclusively proved by experiments conducted by the Office of Corn Investigations.

Under some conditions six or eight cultivations are advisable, while under other conditions three cultivations may be sufficient to keep the soil in proper condition, and would therefore prove more profitable than a greater number.

The Mission of Sweet Clover.

Legislators in many states have declared by their enactments that sweet clover is a weed, and that, therefore, its only mission is to die as quickly as possible by the hand of the exterminator. Such legislation has been hasty. It was made by men who did not know the good points of this valuable plant.

Which are those good points it may be asked? They are many. First, it will grow under hard conditions. These include sandy and gravelly soils, climatic conditions of short rainfall, and where so much alkali is in the soil that many other useful plants will not grow. It will also endure much heat and cold, and it is both a soil enricher and a supplier of humus to the soil. Moreover it has been found that in some areas live stock may be so accustomed to its use that they will thrive upon its pasture, and on the hay that may be produced from it. A plant possessed of so many good qualities should not be proscribed as a noxious weed, as it may, in several ways, be made to render substantial service to farmers.

It may be used in enriching the land. When grown on any soil it adds to the fertility. This would be of but little account if other legumes of higher economic value would do the same. But over these it has the great advantage that it will grow where these would fail. For instance, it will grow on millions of acres in the West where clover could not be grown, because of the dry conditions. It will also grow on lands so strongly impregnated with alkali that ordinary grain crops cannot be grown on these, and in its growth it tends more or less to remove the alkali. Moreover because of its rank growth it may be made to store the land with humus. It is also thought that the bacteria for alfalfa are about the same as for sweet clover, and because of this, the growing of sweet clover may prepare the land for the successful growing of alfalfa.

In the Canadian West, this plant may be used in restoring to worn soils the nitrogen that has been taken from them by excessive cropping. How can this be managed? By sowing a few pounds of seed per acre on the spring grain. The clover would not harm the grain that season. The next spring it ought to make a most vigorous growth. As it makes growth early in the season, it may be buried in June, and when so buried a crop of millet may be grown. If the land is to be summer-fallowed it may be buried before the blooming stage. In addition to adding to the fertility of the land it will fill it with a mass of vegetable matter that will add to the humus supply, and that will add greatly to the moisture-holding power of the soil. The only added cost would be the cost of the seed.

It may be asked, how can this plant render service by inoculating the soil for alfalfa when the inoculating germs are supposed to be practically similar? It does it in this way. The sweet-clover plant is of stronger growth. It will make a good growth where alfalfa plants would not succeed at the first, because of the scarcity of the inoculating material. The growth of sweet clover on the land would lead to the rapid multiplication of the bacteria, and this would promote strong growth in the alfalfa at the outset.

That sweet clover will have an important mission as a pasture plant in the Canadian West is somewhat doubtful, as other pasture grasses can be grown that are better relished. It is different in the Southern States where such grasses will not grow so well. But there may be some places in the Canadian West where this plant may be grown for hay, as for instance on sandy lands low in fertility where alfalfa has not yet been established. But when grown for hay it ought to be cut at an early stage of growth to prevent the plants from becoming woody.

This plant should not prove troublesome as a weed. It is a biennial, hence if it is prevented from going to seed the self sowing of the crop will cease. Of course other plants may come up for a time, but persistent cutting will destroy them. The only way the plants can multiply is from the seed.—Prof. Thos. Shaw.

A Round Cement Water Tank.

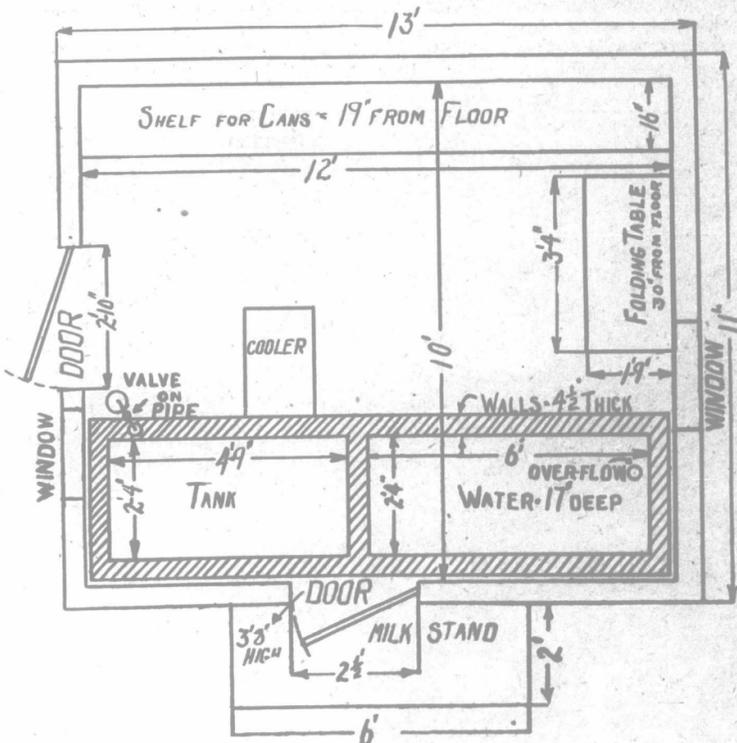
In a recent issue I see a short article on Weldwood, in the course of which it states that you have built a round cement water tank. We are intending to build one and would like to get the benefit of your experience. What size is your tank diameter? What thickness is the wall, and is it better to have it double with an air space? Should the hole be dug below any chance of frost, or would a bottom a foot thick or so be all right set on top of the ground? I am getting silo rings to build mine and we are not sure how small they can be drawn in. Would 8 feet be too big across?



Mr. Bradt's Milk House and Milk Cooler.

Answer. Our round cement water tank is ten feet in diameter (inside) and nine feet deep with foundation walls two feet below floor level, which is about on the ground level. The wall is seven and a half inches thick at floor, tapering to five and a half inches at top, built of cement and gravel mixed about 1-5. It took seven loads of gravel @ \$1.34 laid down, 12 bbls. cement @ \$1.75, and a yard of small stone and a lot of twisted strands of old barb wire of no value. took 145 1/2 hours of men's time and 22 hours horse time getting and returning the curbs, making a total cost of \$73.26, counting all labour.

Referring specifically to your questions would say that a hollow wall would be better, but would cost considerably more if made as strong.



Plan of Thos. Bradt's Dairy.

With a roof (which ours has not as yet) we think a solid-wall tank, properly built, will be safe enough in any ordinary location.

We would suggest a foundation wall at least two feet deep. The floor is all right on ground level, or above it if desired to secure a head. Eight feet across is not too large, unless you need to run the tank up high to secure pressure. In that case the greater diameter would give superfluous capacity and add unnecessarily to the cost. We fear that no silo builder will care to have his rings drawn to a diameter of less than eight feet. Our tank is for barn use only, is

filled by a windmill, and supplies thirty to forty head of cattle and horses.

The profit of any particular crop depends not alone upon the cash balance on that crop itself in any particular year. An important point is the condition in which it leaves the land for subsequent cropping. An American author brings out this point forcefully in a bulletin on corn growing.

"Alfalfa, clover, and similar plants send their roots to a great depth, and are the best crops to turn under for the purpose of growing a very large corn crop. Their culture is the best and most economical way of subsoiling land. The deep-growing roots loosen the subsoil and keep it porous long after the crop is turned under. Without sufficient rainfall poor crops of corn may be obtained on alfalfa sod, the soil moisture having been exhausted to a great depth by the alfalfa roots. Subject to this exception, immense crops of corn usually follow alfalfa.

THE DAIRY.

A Convenient Milk House.

Editor "The Farmer's Advocate":

Milk should be cooled as soon as possible after milking, and to as low a temperature as possible, and the best way to do this is to have a milk house and cooler. Nearly all the farmers in our neighbourhood have milk houses, and send their milk to the Aylmer milk-condensing factory. It is necessary to cool the milk to 59 degrees or lower for this factory.

The bacterial growth is what causes milk to spoil and low temperature will make this growth much slower.

A good sample of milk will have about 500 bacteria in a teaspoonful and this milk if left in a clean place at a temperature of 70 degrees for 24 hours will have 50 millions or more bacteria in a teaspoonful. You will see by this how important it is to cool the milk at once, as when the bacterial growth once forms the milk can never be made as good again, and the cheese factory or condensery cannot make as good an article with it.

We built our milk house ourselves, and it cost about \$50, not including our labor. This is the second milk house we have built, and we helped a neighbor build one, but this is one of the most convenient I have seen at any price.

The cement tank is one inch from the wall. The middle wall in the tank has a one-inch hole level with the floor, and another about five inches from the top. These holes can be plugged and only one tank used when we haven't enough milk for both. The floor slopes slightly towards the overflow. The overflow is an upright pipe which screws into a union which is level with the floor. This upright pipe can be screwed out and all the water run out of the tanks. The water is 17 inches deep, and the tank 22 inches deep.

The water runs in the coil of pipe at the bottom and comes out at the top. The milk runs over the outside of the coil and starts at the top where the warmest water is and strikes the coldest water last. Our water is 50 degrees at the milk house and 47 at the well.

We got this cooler, 18 cans like those shown in the picture, a round milk strainer for straining direct in the cans in the winter, and a square strainer which fits in the feed tank on the cooler from the milk-condensing factory.

The milk is set in the water tank as soon as cooled and if the water gets warm on Sunday the engine is started and cold water pumped into the tank.

A water-supply tank is hung from the roof by

three irons which have hooks at the lower end. A 1-inch pipe runs from this tank near the top with a rubber hose attached and leads the water which is not used in the cooler to the cement tank. A short pipe runs from the upright pipe to the cement tank and has a valve at the end. When water is needed in the cooler supply tank this valve is closed. The cooler supply tank is a half-barrel and a tap is screwed into it at the bottom with a hose attached, which leads to the cooler. A valve is at the lower end of the long upright pipe which is worked by a stick which has two iron prongs on the end to fit it. This can be closed and the pipe taken off in winter if there is any danger of it freezing. It should not freeze in the coldest weather if a little water is pumped every day. The pipe runs through the tile where it goes under the building so the pipe can be taken out if it is ever necessary. A layer of gravel is under all the wall and a tile drain leads the water from this. The cement tank is put in so that the bottom of the cement of it is about level with the top of the other floor. This was done so that the frost would not break it as might happen if it and the floor were altogether. Iron rods are bedded in the cement walls of the tank just a little above the level of the top of them for the cans to rest on when being lifted into the tank. This will save the walls from being broken.

To put the milk on the milk stand we lay boards across the tank under the door by the milk stand and stand on them to lift the cans out of the tank on to the boards. Then it is only a 14-inch lift from there to the milk stand. It is much easier to lift the cans out this way than to stand on the floor and lift them out on the floor and then carry them to the door as nearly everyone does. If you will try laying some boards across a tank and standing on them as I have described you will see how much easier it is, and one person can do it.

We have a large water tank on lower ground than the milk-house, and the water from the overflow pipe and cooler runs to it for the stock to drink. If you cannot arrange it this way the overflow pipe should run into a tile. The end of the hose which leads the warm water from the cooler is put into the overflow pipe so it will not warm the water in the tank.

The cooler, pails, and strainer should be washed well every time they are used, and every two or three days we scour them thoroughly with a brush and a cleansing powder, as water alone will not keep them clean enough. If the cooler isn't cleaned in this way the milk will run over it too fast and will not cool. The cans are all washed and scalded with steam at the factory.

In my article on dairy farm management in

May 1st number of "Farmer's Advocate" readers may find some description of this milk-house which I have not written here.

Any farmer should be able to build one like this for \$50 if he does the work himself.
Elgin Co., Ont. THOS. BRADT.

HORTICULTURE.

San Jose Spreading

Editor "The Farmer's Advocate.":

Reports coming from some parts of the Dominion tell of serious injury having been done to apple orchards by tent caterpillars and cankerworm. Orchards attacked by such insects will be stripped of their foliage in a very few days, and have the appearance of having been swept by fire. The injury to the orchard and loss to the owner is not only this season's crop of fruit, but the next season's crop as well. The leaves are the lungs of the tree, and when destroyed by insects or disease the vitality and vigor of the tree is seriously impaired. The fruit buds which produce the crop of fruit next season are grown and developed this season, and when the foliage is destroyed the fruit buds will not develop, and consequently there will be very little if any fruit on the trees the season following the one in which the foliage was destroyed by caterpillar or cankerworm. Orchards can be kept free from leaf-eating insects by spraying with two or three pounds (2 to 3 lbs.) of arsenate of lead dissolved in forty (40) gallons of water, and by adding one (1) gallon of commercial lime and sulphur leaf spot and apple scab will be prevented. The loss sustained by fruit growers throughout the Dominion by neglecting to spray their orchards, amounts to many thousands of dollars annually. In order to spray an orchard effectually, it is necessary to prune thoroughly, especially when the orchard is infested with San Jose scale. There are many advantages in thorough pruning. It prevents the trees from bearing an over-load of fruit and thereby insures a more regular crop each season, and it also opens up the trees and lets the sunlight to the fruit, giving it color and high flavor, which adds to its appearance and market value besides tending to produce a more uniform grade of number one fruit. Thorough spraying and pruning is now practiced by all leading fruit growers throughout the Niagara district. It is the only possible way to effectually control San Jose scale when an orchard becomes infested. The scale is without doubt one of the most serious pests we have to contend with in our orchards, and yet it is a blessing in disguise, for in seeking for a remedy to kill the scale, lime and sulphur was brought into use,

and it is now a recognized fact that we can control rot in plums and cherries, brown rot in peaches and grapes, mildew on grapes and gooseberries, apple scab and pear scab, curl leaf on peaches, shot-hole fungus and blistermite, all of the above diseases and insects being effectually controlled by the use of lime sulphur, applied at the proper time in the season. San Jose scale is getting more widely distributed over the Province than most people are aware of. I have found orchards infested with scale in the following counties: Essex, Kent, Elgin, Norfolk, Oxford, Middlesex, Lambton, Wentworth, Lincoln and Welland. Here I want to give a word of warning. In districts where scale has been found I would strongly urge the appointment of local inspectors, because the scale will no doubt get bad and seriously injure the orchards before the owner is aware of its presence. All through the Niagara district local inspectors have been appointed, and injury from tent caterpillar and cankerworm is practically unknown, and San Jose scale kept well under control.

Wentworth Co., Ont. WALTER E. BIGGAR.
Provincial Inspector.

A Job for Mr. McArthur

Editor "The Farmer's Advocate.":

So far this has been a slow season for growth, but although hay crop promises to be light, still, pasture has been good, and our recent rain improved conditions greatly.

This district suffered somewhat with the frosts, still not nearly so badly as others. Our alfalfa crops are a complete ruin. They apparently stood the winter all right, and, in the warm weather in the spring, started growth, and then the frosts that followed heaved it each one farther out of the ground.

The fruit crop of this district promises to be good, and, in some orchards, ahead of last year. Thinning of fruit is not done around here, but our own orchard is in need of it, as the Russets, Baldwins, Manns and Greenings are all well loaded. Maybe Mr. McArthur would like to do some thinning if he knew where there was an orchard that needed it. However, I hope he does not feel so bad over the failure of his own orchard as to forget to sow the cover crop this year. My own is sowed, and is buckwheat.

This year sees several more silos being built, and before long this will be known as a corn county.

The corn looks fair, but several plowed their mangels down, and resowed turnips or buckwheat.

There seems to be a difference of opinion around here as to the planting of corn. Some stay to the hill planting and cultivate both ways, while others sow with seed drill. For my own part I like the rows, as the corn binder does better work in cutting, and if not too thick corn matures fully as well as in hills.

Perth Co., Ont. J. H. MULHOLLAND.

Flea-beetles and Their Control.

The Flea-Beetles are an important group of insects which attack the foliage of many plants. They are particularly destructive to the leaves of several kinds of vegetable crops, such as turnips, potatoes, tomatoes, radishes, etc. The chief injury is effected in spring and early summer when the plants are visited by large numbers of the beetles. Numerous small holes are eaten into and through the leaves, in fact, some of the species completely defoliate certain plants. Owing to their jumping habit, these insects were given the popular name of flea-beetles. In size they range from one-twentieth to one-quarter of an inch. In Canada there are five species which are of considerable economic importance, and these are discussed and figured in a recently issued Entomological circular, No. 2, Arthur Gibson, chief assistant entomologist, Experimental Farms, Ottawa, on "Flea-Beetles and their Control." In addition, descriptions are given of eight other species which occasionally appear in destructive numbers. A chapter on "Methods of Control" gives full particulars as to remedies which have been found most successful in the control of these insects.

Copies may be obtained from the Publications Branch, Department of Agriculture, Ottawa.

The Hand of a Daniel

I appreciate the Farmer's Advocate very much. The stand you take on the public questions of the day should meet with the approval of the agriculturists of this country. You displayed the hand of a Daniel on the Bank Act. Wishing you every success in the advocacy of good measures.

Wellington Co., Ont. ERNEST PARKINSON.



A Shady Pasture.

Trees give great protection from sun and flies, and increase the milk flow.

POULTRY.

Lice Powder and Disinfectant.

Many are the poultry houses which are infected with lice, and many are the broody hens which carry large numbers of these pests to young chicks, the lice stunting growth in the young stock or killing it outright. The agricultural experiment station of the University of California, in a bulletin on hatching and rearing chicks, gives two formulae, one a lice powder, the other a cresol disinfectant. They are worth passing on.

Lice powder: 1 1/2 pints gasoline; 1/2 pint commercial cresol; 4 quarts plaster of Paris.

First, mix the gasoline and cresol together and then slowly stir in the plaster of Paris until all the liquid is taken up. Use enough of the plaster of Paris to absorb the liquid and no more. Spread the resulting brownish powder on sheets of paper to dry, and then store away in covered cans. To use, take a large baking powder can, punch the cover full of holes with a six-penny nail, and fill the can with the powder. This makes a good sifter to thoroughly sift the powder into the feathers around the vent and under the wings, while an assistant is holding the hen up by the shanks. Work the powder into the feathers with the fingers. This is one of the best powders. It is also one of the cheapest.

Cresol disinfectant: 3 1/2 quarts raw linseed oil; 1 lb. 6 oz. commercial lye or Babbitt's potash; 1/2 pint water; 8 1/2 quarts commercial cresol.

Take a clean, five-gallon stone crock and pour into it three and one-half quarts of raw linseed oil. Then dissolve the commercial lye in just enough water to thoroughly dissolve it—one-half pint is usually sufficient. Allow the lye solution to stand a few hours until cold. Then pour it very slowly, constantly stirring, into the crock of linseed oil. Take four or five minutes in adding the lye solution to the linseed oil. Continue stirring for 20 to 30 minutes until a smooth thick soft soap is formed. Then stir in the commercial cresol, which will dilute and blend with the soap to form a clear, red brown liquid.

A 3 per cent mixture of the above stock solution is strong enough for all ordinary disinfection, as cresol is extremely powerful in its action. When diluted in this way a thin milky liquid results, which can be applied with brush or spray pump. The latter is best, because with it the disinfectant can be forced into every crack and crevice, thus insuring a perfect job.

FARM BULLETIN.

Up Early.

By Peter McArthur.

In the course of human events it became necessary for me to be up at dawn. This is not mentioned in a boastful spirit, or for the purpose of scattering abroad the impression that I am one of these abnormal early risers. It simply so happened that some work had to be finished before nine o'clock on Monday morning—not farm work—and the only way to get it done was to get up with the hens. I did even better than that. I got up with the lame duck—the one that survived the annual slaughter, because she had been hurt and was lean. She is the earliest bird on the farm. While the roosters are still on their perches and crowing to tell the sun it is time to get up, the lame duck gives a hungry squawk and starts for the pasture field to hunt for chilled and sleepy insects. She was giving her first squawk when I was getting out of bed. When I got out and around, the first thing that struck me was the unfamiliarity of everything I saw. I suppose I could count on the fingers of one hand the number of times I have been up before sunrise in midsummer. Because of this everything looked strange. For the first time I realized that morning twilight is entirely different from evening twilight. Because you enter it from the darkness you see things in a much fainter light. In the evening you enter the twilight from the glare of day, and the impression is not nearly so ghostly. And then the morning twilight was so still that I felt as lonely as if I were in a wilderness. Nothing human was stirring anywhere. In the evening it is different. Everybody is rushing to get the last chores done, the children are playing and shouting, and the twilight hour is full of life. For a change the morning hour seemed the more alluring of the two.

In the early light the grass was silvery grey with dew, and there was mist in all the hollows. Once or twice in the past, when up at this hour, I have heard the birds in their early morning concert, but on this particular morning only one lone song sparrow was singing. There was much cheeping and twittering in the trees, but neither

the robin nor the brown thrasher favored me with morning voluntaries. As the sun began to peep over the distant trees, the first human sound was heard. A man, somewhere in the silent distance, was driving a night-feeding pig out of his garden, or out of some other place where it should not have been. As soon as the first rays struck the mist to the east they made a glowing path towards the sun, just as you often see when it is shining across water. Then the mist all became rosy red, and the dew drops on the grass began to flash with light. As I looked I recalled the picture that Milton borrowed from Homer to describe morning in the garden of Eden.

"Now morn, her rosy steps in the Eastern clime Advancing, sowed the earth with Orient pearl."

In a few minutes the play of colors disappeared, and another hot summer day had begun. Human sounds began to come from every direction, and the lonely spell of the morning was broken.

The coolness of the morning hours as compared with the blaze of mid-day reminded me of the fact that there were some wise men among the pioneers. I remember at least two prosperous families whose older members made it a practice to be up before the sun every morning. They would work until about ten o'clock, then they would have dinner and sleep or rest until about four in the afternoon. After the heat of the day was over they would have another long session of work, and in that way they accomplished as much or more than those who "bore the burden and the heat of the day." In many of the warmer countries it is still the custom to have a noon-day sleep or siesta, but the idea does not seem to have taken hold in Canada, though we have many days that are too hot for any human being to work in the open sun. I suppose the idea of a noon-day sleep would seem insufferably lazy to many of our most industrious citizens, but from five to ten in the morning and from three to eight in the afternoon would give a legal day's work in the best working hours of the day. There may be some people who work from dawn till dark, but the vast majority sleep through a couple of hours of light in the morning, and then sit up for a couple of hours by lamplight every night—a foolish practice which has enabled Rockefeller to make his fortune by selling coal oil.

Even the few apples we have this year are developing in an entirely different way from the ones we had last year. Although the trees were loaded last spring hardly an apple fell off, and they had to be thinned during the summer. This season although none of the trees are heavily loaded, a large percentage of the little apples have shrivelled and fallen. I wonder if the cultivation has anything to do with that? Last year the orchard was thoroughly worked and fertilized, but this year, although it has been fertilized, it has been allowed to go to grass. Another thing I have noticed with some disquiet is that in spite of three thorough sprayings many of the apples are already showing signs of scab. Indeed, a visiting expert told me that the scab is unusually developed for this time of year. As a rule it is retarded by a cold spring, but already the apples affected are strongly marked, and, in some cases, misshapen. The puffed leaves that I mentioned some weeks ago are now shrivelled and will probably fall off. Some specimens that were sent to Guelph brought the report that the trouble was probably due to the frost. This explanation was not given as final and I am inclined to doubt it, for all the other leaves that were affected by frost shrivelled and died at once.

We had a few minutes of futile excitement this morning when it was discovered that the bees were swarming. We have only one hive, the sole survivor of winter before last. Last season it was so weak that it did not give off a swarm, and barely managed to pull through. This spring it was good and strong, and preparations were made to get at least one swarm. When I went out to look at them the air was full of bees, and they had begun to cluster on a branch of a spruce tree about ten feet from the parent hive. As quickly as possible I fixed a veil on a hat, put on an overcoat and gloves and got ready to hive the swarm in the most approved scientific manner, but I was doomed to disappointment. When I went out to the tree the bees had evidently changed their minds, and were all trooping back into the old hive. That was several hours ago, and apparently the new swarm has gone back to work in the old hive. This is a phase of bee-keeping that is beyond me, and to-night I shall have to consult with a beekeeper to find out what is the cause of the trouble. Although they began to swarm in the usual way, they did not stay out of the hive for more than ten or fifteen minutes.

The Spring Grove-Springhurst Shorthorn Sale.

As announced through these columns, the dispersion sale of the entire Spring Grove herd of Shorthorn cattle, the property of T. E. and H. C. Robson, Ilderton, with a selection of four from the Springhurst herd of Harry Smith, Hay, Ont., took place at Spring Grove Farm, Ilderton, June 25th. Twenty-seven head were disposed of at the very good average of about \$170 each, some of the good things not selling quite as high as their quality warranted, while others made very good prices indeed. About two hundred lovers of the breed were present, most of them from Ontario points, with a few from the States. All the cattle, with the exception of one cow, were knocked down to Ontario buyers, many remaining in the district round about Ilderton. The highest price of the sale, \$470, was paid by Ed. de Gex, Kerrwood, Ont., for the smooth, deep, thick-fleshed, red Cruichshank Butterfly cow, Lady Butterfly, with a roan bull calf at foot. F. C. Willmott and Sons, Milton, Ont., got Mayflower Gift (imp.) for \$310, the second highest price of the offering. The stock bull Victorian fell to the bid of Geo. Andrews, Elimville, Ont., at \$250. Jos. White, St. Marys, got a bargain in the yearling heifer, Miss Mayflower, one of the choicest things of the entire offering, and bought at \$185.

The following is a list of cattle, buyers, and prices:—Females—

Robina 3rd (imp.)—Leslie Christie, Ancaster	\$145
Primrose 2nd (imp.)—Thos. Henderson, Glencoe	150
Rosemary 124th—Jas. Tancock, London	180
Rose of Strathleven—F. C. Willmott and Sons, Milton	160
Mayflower Gift (imp.)—F. C. Willmott and Sons, Milton	310
Miss Mayflower—Jos. White, St. Marys	185
Bolmar Miss Ramsden 4th—Jno. Ferguson, Mapleton	190
Belle of the Morning—Jos. White	200
Vanity 19th—R. and A. Morrell, Belton	95
Lady Butterfly—Ed. de Gex, Kerrwood	470
Princess Butterfly—Ed. de Gex	175
Butterfly Girl—R. and A. Morrell	185
Butterfly's Queen—W. A. Dryden, Brooklin	190
Butterfly's Queen 3rd—Robt. Miller, Stouffville	105
Athelstane Rosewood 3rd—H. C. Rosenberger, Tiffin, Ohio	125
Erina—A. Burchill, Newbury	185
Orange Blossom 6th—E. Robson, Ilderton	200
Clipper of the Manor 7th—W. Hall, Ilderton	155
Merry Duchess—W. Hall	105
Lady Monarch—Herbert Weeks, Glencoe	125
Buchan Fancy 24th—John Miller, junr., Ashbush	95
Firenc—J. A. Mallough, Dungannon	165
May Apple—Martin Hay, Ilderton	155
Athelstane Rosalind—Jos. Ardiel, Salmonville	110
Barrington Lady 9th—Wm. Shipley, Denfold	80
Bulls:	
Victorian—Geo. Andrews, Elimville	250
Victor Rosewood—Hugh Thompson, St. Marys	160
Twenty-seven head brought \$4,550, or an average of \$168.51 each.	

A Prelude to the International Horse Show.

On June 13th and 14th, at Richmond, Surrey, England, the local horse show was held, fascinating 30,000 spectators, including one King and four Queens, and could honestly be said to have acted as a prelude to the International Horse Show at Olympia, London. Judge W. H. Moore and A. G. Vanderbilt each took a fleet of horses to Richmond and got well among the prize money.

The strife between these exhibitors and the Britishers is keenness itself, and although the visitors did well in the coaching events, we, of this side, more than held our own in the single harness classes as the details below will prove:—

The open classes for single harness horses, over 14 hands and not exceeding 15 hands, had an entry of seventeen. Philip Smith's Queen of Ayr, at the top of her form, took first prize; Dr. Judson's Sensation was second. He is a four-year-old, and shows plenty of promise, and his action is good, but he was a trifle lucky to be so high up in this company. Judge Moore's Whitewall Ariel, a well-known Yorkshire-bred one, was third, and another Yorkshire-bred mare was reserve in Philip Smith's Melbourne Princess.

The class for novice harness horses, 15 hands and over, had a large entry of twenty-three. Judge Moore won with Vida Fayre, a very stylish mare, with fine action. Second went to W. A. Barron's Cadogan Flash, a chestnut.

The class for single harness horses, over 15

hands, had an entry of 26, of which 14 were shown. Among them were several of the most famous harness horses of the day, but to the general surprise the winner did not spring from among them. First prize went to Howard Frank's Roderick Dhu, an upstanding bay with a very good look-out. He moves well in front, and he gets his hocks well under him. Philip Smith's King of the Air, who made a brilliant show, was a very good second, and H. Le Marchant's Gaythorn was third. Reserve went to T. W. Simpson's Argo.

There were half-a-dozen entries in the class for pairs of harness horses, 15 hands and under. P. Smith's Queen of Ayr and Melbourne Princess won cleverly, second honors going to W. H. Moore's Whitewall Ariel and Raeburn. W. Winans' Lonsborough and Lonsdale taking third prize. There were ten entries in the class for tandem teams over 15 hands, but only three came into the ring. Miss Ella C. Ross won with her Grand Vulcan and Grand Viscount, with Miss A. Sylvia Brocklebank's well-matched and well-balanced greys, Optimistic and Opal, a very good second, and Paul Hoffmann's new partners, Lord Ramsey and Warwick Marie third.

In tandem teams, 15 hands and under, Philip Smith's stylish team, Queen of Ayr and Melbourne Princess, were first. As usual, they were popular winners. W. H. Moore was second with Menella and Phyllis; Walter Winans was third with Lonsborough and Lonsdale, and reserve went to C. Ratchliffe's Peterston Pearl and Peterston Princess.

The challenge cup for the best pair of harness horses went to W. H. Moore's well-known winners, Robin Hood and Burgomaster, with A. G. Vanderbilt's Hamlet and Hermes reserve. The Kjerr Challenge Cup was won by Philip Smith's Queen of Ayr, with Howard Frank's Roderick Dhu reserve, and Queen of Ayr took the Hackney Society's gold medal.

The class for single-harness trotting horses, any height, undocked, and to be driven without the bearing reins, did not fill very well. W. Winans was first, second, and third with Sunset, a well-balanced bay, and a fine mover, Oberon, a good-looking grey, with substance and quality, and Eros, there being only three others entered.

The challenge cup for the best four-in-hand team brought out a grand lot, seven of the ten teams entered competing. W. H. Moore won with a team of bays, stylish horses, and fine movers, but by no means such a well-balanced team as Miss Ella C. Ross's famous blacks, which are alike in action as well as color. There was considerable difference between W. H. Moore's leaders and wheelers.

There were 22 competitors in the Coaching Marathon event. In the section for private coaches, Judge Moore won with a well-balanced team of greys—a little stronger, but perhaps not quite so stylish as Mr. Vanderbilt's bays that were second. Third prize went to Sir Edward Stern, who, as usual, drove blue roans, and Miss Brocklebank's workmanlike team was placed next. In the road section, Vanderbilt's greys were to the fore. Then came Tilling's chestnuts, a smart, well-matched team. Craig McKerron's "Reynard" team came next, a sporting team of crossed bays and greys.

In the Coaching Club class eight out of the 13 entries were forward, and the ring again presented a lively appearance. Sir Lindsay Lindsay-Fogg won with a well-balanced team of dark chestnuts that go well together—a very popular victory. Then came Vanderbilt's bays, a stylish team, with scarcely so much timber about them. M. Martinez de Hoz was third with a team of chestnuts, and Alan Lupton was fourth with a workmanlike team of browns, rather on the strong side. Stanley Brotherhood's chestnuts were reserve.

London, England.

G. T. BURROWS.

New Buildings and Lessons at O.A.C.

Notwithstanding the laudable effort of the C. P. R. to carry the lessons of the Agricultural College to the people on wheels, and notwithstanding, too, a tightening of excursion terms and rates, between fifteen and twenty thousand persons took in the annual pilgrimage to the Ontario Agricultural College, Guelph. The excursions were bunched more than usual this year, the whole series being run off in ten days. The crowds were keenly interested. President Creelman doesn't know when the visitors had asked more questions. Besides enquiring about farm and garden crops, they asked the names of trees, shrubs, and lawn mixtures. The President emphasized to them the need for better home surroundings. He is repeatedly asked by people enquiring for farm property whether the places in question have any trees around them. They are willing to pay more for a farm with a wind-break of evergreens along the north and west, a few deciduous trees around the buildings and a bit of a lawn. So it not only improves a farm

for one's own purposes to do some planting, but it adds to the selling value. He asked them all to name their farms, and live up to the name.

There are no staff changes to report, but considerable building is in progress. A new dairy barn, to accommodate fifty head, is being completed. Ground has been broken for the new dining-hall 100 by 64 feet. Tenders are being asked for a poultry building 100 by 60 feet. The growing apiary department is to be provided with quarters of its own, while across the driveway from Prof. Zavitz' residence a fine new Field-Husbandry Building 146 by 63 feet is being constructed of red brick. The present one will provide more ample quarters for Prof. G. E. Day and for the Bacteriological Department, which, for ten years, has been in a chronic state of overcrowding. All these buildings except the dining-hall are being erected out of the federal grant.

Those who made the round of the experimental plots this year were well repaid. Two or three points of outstanding interest may be noted. The plots to compare the effect of seeding various varieties of oats at different rates per acre, the alfalfa plots demonstrating conclusively the superior hardiness of the variegated over the common purple or violet-flowered varieties, the promising field of annual pasture crop mixture (51 lbs. oats, 30 lbs. Early Amber sugar cane, and 7 lbs. red clover) and the fall wheat and rye plots which presented a very satisfactory appearance—all were worthy of special attention. The spring grain is perhaps not so long in the straw as usual, but is in a fair way to yield a good crop of grain. As applying to the province generally, the excursionists reported hay the poorest crop, timothy having been injured by frosts.

THICKNESS OF SEEDING OATS.

Several very important points are suggested by the oat plots referred to. Here are a range of plots embracing quite a number of varieties, including such well-known kinds as Banner and also some of the light-stooling English varieties such as Abundance. Of each variety there are fourteen plots, seven planted with large seed, and seven with small seed. All the seeds were carefully put in by hand, with the following spacing: 1-inch, 2-inch, 3-inch, 4-inch, 6-inch, 8-inch, 12-inch. The best all round results have been obtained from the plot with large seeds spaced 3 inches, which equals about one and one-third bushels per acre. Of course, under average field conditions with less regular spacing of seeds and less favorable germinating conditions, a somewhat thicker seeding would probably prove better, say about two bushels per acre. Further experiments are to be conducted on this point. But very thick seeding is clearly a disadvantage. Scarcely any of the plants spaced 1 inch stood at all. This is true of all varieties. The thick-sown plots look beautiful when coming up, but soon show the effects of crowding, being short and yellow. The very thin seeding gives vigorous, healthy plants, but they devote so much energy to stooling that they do not grow so tall as the medium-sown plots. Their color, however is excellent. The medium seeding gives the tallest, healthiest plants, and the largest yield. As compared with the thick seeding the medium gives a very much greater increase per acre and this is doubly important, because a bushel of carefully cleaned seed in spring represents nearly double the value of a bushel of the crop as harvested in autumn. One point in favor of comparatively thick seeding is that it tends to reduce rust injury. In general it appears that stooling is a character to be encouraged rather

than repressed. The comparison between the rows of plots sown with large and small seed is so marked that anyone can see it at a glance, and this, too, in the case of every variety. In practically all comparisons the large, plump seed gives the greater yield, except occasionally in the case of the excessively-thick-sown plots where the larger-stalked, leafier plants appear to suffer more from crowding towards heading time than the less stocky plants from the small seed, and consequently do not always fill quite so well. With medium or thin seeding the larger seed gives much the better result, the same number of seeds being planted in each case. On this point it should be remembered, when setting a drill, to allow for the smaller number of kernels per bushel in large, plump, than in small, thin grain. Otherwise too few plants may result.

Distribution of Federal Grant.

The plan of the expenditure of the Ontario Government's share of the Federal Agricultural Grant for the current year has been finally approved by the Provincial Minister of Agriculture and the Minister at Ottawa. The Bill limits expenditures to instruction and demonstration work. Last year there was no special limitation. Following are the items:—

District Representatives	\$ 80,000
O.A.C. Short Course, travelling and living expenses of winners of Acre Profit Competition	1,500
To encourage agriculture in the public Schools	10,000
Educational work in connection with marketing of farm products, including organization of co-operative societies, collection, printing, and distribution of information on current prices and systems of marketing	5,500
Buildings at Ontario Agricultural College, including poultry building for administration, class room and laboratory purposes; to finish and equip Field Husbandry Building; Apiary Administration Building; to re-model and equip bacteriological department; extensions and equipment of dairy barns	51,500
Stock and Seed Judging Short Courses and Institute lecture work	7,500
Women's Institute work, including courses in cooking, sewing, etc.	6,500
Short courses for fall fair and field-crop judges, including travelling and living expenses	5,500
Drainage work	5,000
Demonstrations and instruction in vegetable growing	2,500
Demonstration work on soils	2,500
Demonstrations and instruction on live stock and poultry	4,000
Demonstration work for spraying, pruning and packing of fruits	3,000
Demonstrations in beekeeping	1,000
Ontario Veterinary College, additional land	5,000
Lecturers on horticulture	500
Miscellaneous	4,233.32
	\$195,733.32

Hon. Martin Burrell, minister of agriculture, Ottawa, is leaving for Europe, where he will visit the exposition at Ghent, and make a special study of the intensive agricultural methods of Belgium.



Fifty Acres of Experimental Plots at Guelph.

Markets.

Toronto.

REVIEW OF LAST WEEK'S MARKETS

At West Toronto, on Monday, June 30, receipts at the Union yards numbered 61 cars, comprising 1,260 cattle, 50 hogs, 100 sheep, and 107 calves. No sales. At the City yards, there were 6 cars, comprising 93 cattle, 66 hogs, 66 sheep, and 55 calves. Market dull. Cattle prices easier; good butchers', \$6.25 to \$6.50. Sheep, easier, at \$3.50 to \$5; lambs, \$6 to \$9; calves, \$6 to \$9. Hogs were quoted lower, at \$9.35 fed and watered, and \$9 f. o. b. cars.

The total receipts of live stock at the City and Union Stock-yards last week were as follows:

	City.	Union.	Total.
Cars	15	320	335
Cattle	284	3,431	3,715
Hogs	125	6,615	6,740
Sheep	541	3,602	4,143
Calves	202	1,176	1,378
Horses	—	45	45

The total receipts at the two yards for the corresponding week of 1912 were as follows:

	City.	Union.	Total.
Cars	205	177	382
Cattle	2,283	2,293	4,576
Hogs	3,221	3,681	6,902
Sheep	2,979	932	3,911
Calves	997	267	1,264
Horses	3	74	77

The combined receipts of live stock at the two markets for the past week, show a decrease of 47 cars, 861 cattle, 162 hogs, and 82 horses; but an increase of 232 sheep, and 114 calves, compared with the same week of 1912.

It will be seen by the tables given, that the receipts of cattle were not as large for the past week as they were for the previous week, or for the corresponding week of 1912. The quality of cattle offered was not, as a rule, as good as for the previous week, as there were more grass-fed, or, rather, finished on grass, than at any previous market this season. Export cattle and heavy butchers' cattle declined in price from 10c. to 15c. per cwt., while choice, light, handy butchers' cattle were firm, at last week's quotations. Sheep, lambs and hogs, all declined in prices, while calves remained firm.

Exporters.—Wm. Howard bought for Swift's, of Chicago, 100 export cattle for London, England, as follows: Steers, at \$6.90 to \$7.05, and bulls at \$5.75 to \$6. On Wednesday, the heavy cattle declined from 10c. to 15c. per cwt.

Butchers.—Choice butchers' steers and heifers sold at \$6.70 to \$6.90; loads of good, \$6.40 to \$6.65; medium, \$6 to \$6.80; common, \$5.25 to \$5.90; cows, \$3 to \$5.75; bulls, \$4.75 to \$5.75.

Stockers and Feeders.—Market was unchanged. Feeders, 700 to 800 lbs., sold at \$5.60 to \$6; stockers, 550 to 600 lbs., sold at \$4.75 to \$5.25.

Milkers and Springers.—Trade in milkers and springers was very dull. Prices ranged from \$40 to \$65 for the bulk of the cows sold.

Veal Calves.—Prices for veal calves remained firm. Choice quality calves sold at \$8.50 to \$9 per cwt.; good calves sold at \$7.50 to \$8, and common calves at \$5 to \$6.50 per cwt.

Sheep and Lambs.—Prices for sheep and lambs were lower. Ewes, light, sold at \$5 to \$5.25; rams and cull ewes sold at \$3.50 to \$4.50 per cwt.; lambs sold from \$6 to \$9 per cwt., and in some instances \$9.50 to \$9.75 per cwt. was paid for selected lots of choice lambs.

Hogs.—Selects, fed and watered at the market, sold at \$9.50 to \$9.60, and \$9.15 f. o. b. cars at country points.

Horses.—Receipts of horses at the Union Horse Exchange, Union Stock-yards, were light last week, but quite equal to the demand, as the summer quite season has developed earlier than usual this year. The trade was entirely local, and light at that. Prices ranged as follows: Drafters, \$175 to \$260; general-purpose horses, \$150 to \$225; express horses, \$160 to \$200; drivers, \$100 to \$175; serviceably sound, \$45 to \$100.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 97c. to 98c.; inferior grades down to 75c., for car lots, outside; Manitoba,

No. 1 northern, \$1.03; No. 2 northern, \$1.00; No. 3 northern, 97c., track, lake ports. Oats—Ontario, No. 2, 34c. to 35c., outside; 36c. to 37c., track, Toronto; Manitoba, No. 2, 40c.; No. 3, 38c., lake ports. Rye—No. 2, 61c. to 62c., outside. Peas—No. 2, 90c. to 95c., outside. Buckwheat—No. 2, 52c. to 53c., outside. Corn—American, No. 2 yellow, 63c., Midland; 68c., track, Toronto. Barley—For malting, 50c. to 53c.; for feed, 43c. to 48c., outside. Flour—Ontario ninety-per-cent. winter-wheat flour, \$4.10 to \$4.15, seaboard, in bulk, Manitoba flour—Prices at Toronto are: First patents, \$5.50; second patents, \$5; in cotton, 10c. more; strong bakers', \$4.80, in jute.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, \$12 to \$12.50 for No. 1, and \$11 for No. 2.

Straw.—Baled, car lots, track, Toronto, \$9 to \$9.50.

Bran.—Manitoba bran, \$18 in bags, track, Toronto; shorts, \$20; Ontario bran, \$18 in bags; shorts, \$20; middlings, \$21 to \$23.

COUNTRY PRODUCE.

Butter.—Market easier in some grades. Creamery pound rolls, 28c. to 29c.; creamery solids, 27c. to 28c.; separator dairy, 23c. to 24c.; store lots, 20c. to 21c.

Eggs.—Market firm, at 22c. to 23c. per dozen, per case.

Cheese.—New, twins, 13c.; large, 13c.; old, twins, 15c.; large, 14c.

Honey.—Extracted, 13c.

Beans.—Hand-picked, \$1.60 to \$2 per bushel; primes, \$1.75, ranging down to \$1.50 for poor quality, track, Toronto.

Potatoes.—Ontarios, 75c. per bag, car lots, track, Toronto; New Brunswick Delawares, \$1 per bag, car lots, track, Toronto; American potatoes, new, \$3.25 per barrel.

Poultry.—Receipts light. Turkeys, dressed, 18c. to 20c.; spring ducks, 28c. to 30c. per lb. dressed; spring chickens, 35c. to 40c. dressed, and 25c. to 30c. alive.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; city hides, flat 12c.; country hides, cured, 12c.; calf skins, per lb., 16c.; deacons, each, \$1.10 to \$1.20; lamb skins and pelts, 20c. to 40c.; sheep skins, \$1.50 to \$1.85; horse hair, 37c.; horse hides, No. 1, \$3.50; tallow, No. 1, per lb., 5c. to 6c.

WOOL.

Coarse, unwashed, 15c.; coarse, washed, 24c.; fine, unwashed, 17c.; fine, washed, 26c.

FRUITS AND VEGETABLES.

Strawberries, per quart box, by the case, 10c. to 12c.; gooseberries, 60c. per basket; cabbage, new, imported, \$3.75 per case; wax beans, imported, \$3 per hamper; cucumbers, imported, \$3 per hamper; rhubarb, dozen, 25c. to 50c.; Egyptian onions, 110 lbs. per sack, \$2.50; peas, hamper, \$3; carrots, hamper, \$2; new potatoes, barrel, \$3.25; radishes, basket, 50c.; watermelons, each, 50c. to 65c.; Canadian head lettuce, per dozen, 40c. to 80c.; new beets, dozen, 50c.; cherries sold at 30c. per small basket.

Chicago

Cattle.—Beeves, \$7.20 to \$9; Texas steers, \$6.90 to \$8.10; stockers and feeders, \$5.70 to \$8.10; cows and heifers, \$3.90 to \$8.50; calves, \$6.50 to \$9.40.

Hogs.—Light, \$8.55 to \$2.80; mixed, \$8.50 to \$8.80; heavy, \$8.30 to \$8.75; rough, \$8.30 to \$8.45; pigs, \$6.75 to \$8.90.

Sheep and Lambs.—Sheep, native, \$4.75 to \$5.75; Western, \$5 to \$5.75; yearlings, \$5.60 to \$6.75. Lambs—Native, \$5.70 to \$7.35. Spring lambs, \$5.50 to \$8.

Cheese Markets.

Vankleek Hill, Ont., 12c.; Kingston, Ont., 12c.; Brockville, Ont., 12c.; Ottawa, Ont., 12 to 13-16c.; Campbellford, Ont., 11c.; Listowel, Ont., 12c.; Cornwall, Ont., 12c. to 12c.; Alexandria, Ont., 12c. to 12 to 11-16c.; Iroquois, Ont., 12c.; Picton, Ont., 12c., 13c., 13c.; Napanee, Ont., 12 to 11-16c., 12c., and 12 to 13-16c.

Montreal.

Live Stock.—The live-stock market was rather easier last week, and prices declined about 1c. per lb., the warmer weather being one of the causes. The top price for steers was 7c. per lb. Fine stock was available around 6c. per lb.; good quality sold at 6c. to 6c.; medium at 5c. to 6c., and common ranged down to 4c. per lb. The market for sheep showed little change, sales taking place at 4c. per lb. Lambs ranged from \$3 to \$5 each, being a little lower than a week ago. Calves sold at \$2 to \$5 for ordinary quality, and up to \$10 each for choicest. Hogs were lower than a week ago, and selected lots were sold at 10c. to 10c. per lb., while the common stock sold down to 9c., weighed off cars.

Horses.—The tone of the market was firm, but supplies were light and prices unchanged. Prices were as follows: Heavy-draft horses, weighing from 1,500 to 1,700 lbs., \$300 to \$350; light-draft, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$125 to \$200; broken-down, old animals, \$75 to \$125, and choice saddle and carriage animals, \$350 to \$500 each.

Poultry.—Prices on poultry were steady, as follows: Turkeys, 23c. to 24c. per lb.; geese and fowl, 15c. to 17c.; ducks, 20c. to 22c., and chickens, 18c. to 19c.

Dressed Hogs.—Although the tone of the market was weaker, prices held steady. Dressed hogs still sold at 14c. to 14c. per lb. for abattoir-dressed, fresh-killed.

Potatoes.—The market was again on the easy side, and prices declined to 75c. and 80c. per 90 lbs., for Green Mountains, carloads, on track. Quebec potatoes were also lower in price, being 60c. to 65c. Smaller lots brought 25c. to 30c. more than carloads.

Syrup and Honey.—There was no change in syrup and honey. Three-quart tins of maple syrup cost 85c. to 95c.; syrup in wood was 7c. to 8c., and maple sugar, 11c. to 12c. per lb. Honey was steady, and was quoted as follows: White-clover comb, 16c. to 17c. per lb.; extracted, 11c. to 12c.; dark comb, 14c. to 15c.; strained, 8c. to 9c.

Eggs.—There was an active demand for all the eggs offered, and as a consequence prices held firm. Selects still sold about 25c. here in a wholesale way, and straight receipts at 22c. to 23c.

Butter.—The West is enquiring for butter, and as a consequence prices were very firm, and slightly higher than the previous week. The finest creamery was quoted at a range of 25c. to 26c. per lb., while fine quality could be had at about 1c. to 1c. under this figure, and other grades at still less. Dairy butter held at 22c. to 23c. per lb.

Cheese.—Prices advanced, the quality greatly improved. Western white was 13c. to 13c., and sold at a premium of about 1c. over colored. Eastern white was quoted at 12c. to 12c., and was also 1c. over colored.

Grain.—Local grain dealers quoted as follows: No. 2 Canadian Western oats, 41c. to 42c. ex store; No. 1 extra feed, 41c., and No. 1 feed and No. 3 Canadian Western, 40c. to 40c.

Flour.—Prices advanced to \$5 per barrel, for Manitoba first patents, in bags; \$5.10 for second, and \$4.90 for strong bakers. Ontario winter-wheat flour was \$5.50 for patents, and \$5.10 for straight rollers.

Millfeed.—Local mills quoted \$18 per ton for bran in bags, and shorts \$19, while middlings were \$22. Mouille was quoted at \$30 to \$32 per ton for pure, and \$26 to \$28 for mixed.

Hay.—Prices were \$12.50 to \$13 per ton for No. 1 baled hay, car lots, track; \$11.50 to \$12 for No. 2 extra; \$9.50 to \$10 for No. 2 ordinary.

Hides.—Prices were again higher on lamb skins. Beef hides were 11c., 12c. and 13c. per lb. for Nos. 3, 2 and 1 hides, respectively. Calf skins were 17c. and 19c. per lb., respectively, for Nos. 2 and 1. Lamb skins were 25c. and 30c. each, and horse hides \$1.75 and \$2.50 each. Tallow sold at 1c. to 3c. per lb. for rough, and 6c. to 6c. for rendered.

Buffalo.

Cattle.—Prime steers, \$8.75 to \$9; shipping, \$8 to \$8.65; butchers', \$7 to \$8.50; heifers, \$6.75 to \$8.25; cows, \$3.75 to \$7.25; bulls, \$5.50 to \$7.50; stockers and feeders, \$6 to \$7.75; stock heifers, \$5.50 to \$6.50; fresh cows and springers, \$2 to \$3.

Veals.—\$6 to \$10.

Hogs.—Heavy and mixed, \$9 to \$9.05; Yorkers and pigs, \$9.05 to \$9.10; roughs, \$7.75 to \$7.90; stags, \$5.50 to \$7.25; dairies, \$8.75 to \$9.05.

Sheep and Lambs.—Lambs, \$5 to \$8; yearlings, \$4 to \$6.50; wethers, \$5 to \$5.25; ewes, \$2.50 to \$3.50; mixed, \$4.50 to \$4.75.

Questions and Answers. Miscellaneous.

Pruning Evergreens.

Would you kindly inform me the most reasonable time of the year to prune lawn spruce trees?

A. M.

Ans.—Early in the spring before growth commences.

Devolution of Estate.

What is the law of succession in British Columbia? Have brother and sisters, father and mother living. Brother died and left property.

Ans.—If he died without a will and unmarried, the property, after payment thereof of his debts and funeral and testamentary expenses and succession duty, if any, would go to his father.

Accidents to Automobiles.

1. Are municipalities in Ontario liable for damage incurred by automobiles through defective roads, providing they are running under their speed limit?

2. Has a township council power to issue a by-law leaving automobiles at their own risk in their township?

ONTARIO. SUBSCRIBER.

Ans.—1. Generally speaking, yes. 2. We should doubt very much that they have such power.

Four-cross Registration

What proceeding would I need to take to get my filly registered, she having four registered crosses, if she is eligible? These are the mares and imported horses which I refer to: Lady, bred to Sir Patrick (imp.), g-g-g-g; Maggie, bred to Scot's Baron (imp.), g-g-g; Lady, bred to Rejector (imp.), g-g; Maggie, bred to Milton Chief (imp.).

J. N.

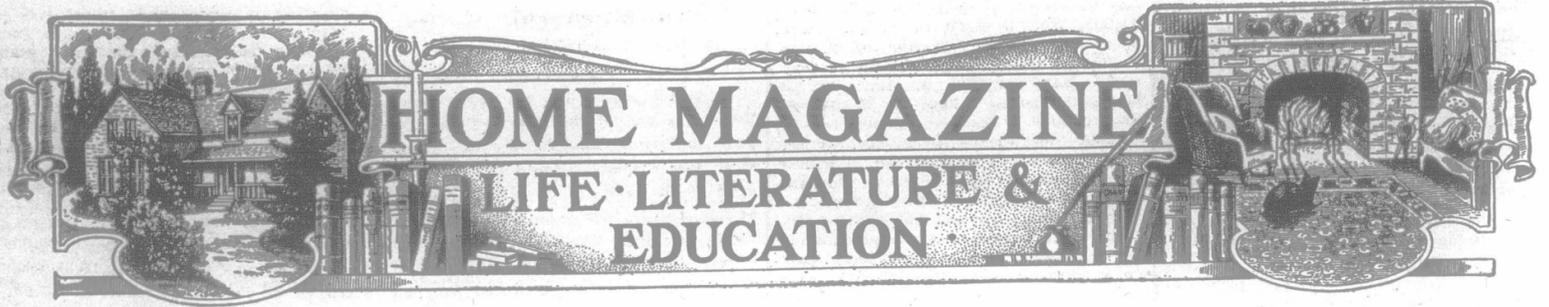
Ans.—For all such information, address "The Accountant," National Live Stock Records, Ottawa, Ont., not forgetting to name the breed to which the respective sires or other individuals concerned, may belong. When these happen to be well known, of course, it does not much matter, but to avoid confusion one should always be specific.

Cow Chews Bones.

I have a cow which has the habit of chewing and sucking bones. She will search for them, and when she makes a find, she will spend all her time with it until it is taken away from her. She is on grass, and well salted, looks quite healthy, but is failing in flesh and milk flow. Tell me the cause and give remedy.

A. H.

Ans.—The chewing of bones, wood, and such substances, is a habit supposed to be induced by a lack of phosphates in the food. An application of bone meal or Thomas' phosphate to the pasture, has been known to check the craving. Give the cow an ounce of phosphate of lime in a pint of cold water as a drench once daily, or on a little bran or chop. A small, closed handful of sifted wood ashes in meal once or twice a week is believed to have a beneficial effect.



Percé to Gaspé

(By MARGARET GRANT MACWHIRTER.)

Our steamer reached Percé, of historic and legendary fame. This place has been known to the world since 1534, when Jacques Cartier visited it and gave to either Percé Rock or Mont Joli the name of Cap de Prés. Also, since the close of the Sixteenth Century, the French continued to visit the spot in search, even in those early days, of cod. Later, Champ-lain, from Quebec, frequently sent boats to Percé with despatches for France. An infant colony was begun by Richard Denys de Fronsac and a chapel built by the Recollet Fathers in 1673.

Remote though Percé was from the seat of war, nevertheless, in 1690, it was unexpectedly attacked and pillaged.

The two small villages into which Percé (now the County Seat of Gaspé) is divided are known as North and South Beach, and between them is a headland named Mont Joli, which is generally supposed to have been formerly joined to Percé Rock. The village nestles at the base of lofty Mount Ste. Anne, which rises abruptly to the height of 1,300 feet. This mountain is a welcome sight to vessels coming up the St. Lawrence, being discernible at a distance of nearly eighty miles.

Grand beyond anything I had ever seen, towered the mountains at the rear of Percé village, which lies immediately at the foot; while far above is the Cross of Ste. Anne silhouetted against the sky. Involuntarily the words rose to my lips:

"Far from the madding crowd's ignoble strife."

The inhabitants are descendants of people who came from Guernsey, Jersey and France.

The story is told that in the old war-days a man-of-war entered Percé to impress men for the service. A man named Lago was taken and the king's shilling dropped into his pocket. Escaping, he ran for his life, dodging between the fishing buildings, whither the officer, determined to have his man, followed in hot pursuit. Hearing his screams, his sister, who in size was considerably above the average, hastened to the rescue and suddenly the officer was confronted by an angry woman armed with a hoe, one well-directed blow of which felled him to the ground, from whence he was carried aboard ship.

No farther than two hundred yards from Mont Joli rises the immense bulk of Percé Rock.

Dr. Clarke, in his "Sketches of Gaspé," thus describes the great barrier: "Fifteen hundred feet long by two hundred and eighty-eight feet high at its peak or inner point. At its greatest width it is about three hundred feet through the rear of the great rock itself is perforated by an arched tunnel about sixty feet high."

Startled by the steamer's whistle, innumerable gulls and cormorants flew into the air uttering loud cries, for the top of the "Pierced Rock," though now inaccessible to man, makes a safe eyrie whereon to rear their young. A man on board remarked the beauty and grandeur of the scene; then, turning towards the Rock, he observed, "There's an old legend attached to Percé Rock."

Long ago—so runs the tale—a French frigate had come to Percé, where one of the sailors met and fell in love with one of Percé's fair maidens. So infatuated was he with the girl that he determined to desert his ship. Only one place of shelter offered, and he succeeded in scaling Percé Rock, where he defied capture, even under a fusillade from the frigate's guns. When at length the man-o'-war departed, young Neptune was at liberty to descend from his retreat to his anxious lady-love.

When thanking my informant for the story, I told him that the search of months had been rewarded; hitherto I had sought

in vain for the legend of the Pierced Rock. Sir Gilbert Parker, in his "Battle of the Strong," gives a different version of what is probably the same tale. Still another story relates to a young woman who decreed to be wedded upon the great rock, and from this lofty pedestal probably descended to a more lowly lot.

Still another, less romantic but more ghostly, tells how a pirate, aided by a faithful sailor, buried his treasure upon the Great Rock; then slaying his man, left his body, according to the popular belief, to guard the gold.

Although now inaccessible to man, it was not always so, for several of the first inhabitants climbed the rock by means of ladders to cut the hay which flourished there. However, a law was passed by the authorities forbidding the ascent in consequence of a man having been killed while attempting the feat. Now it is only barren rock.

The road from Percé to Corner of the Beach is through the mountains, known locally as "Through the Falls." It is exceedingly hilly and in many places precipitous, flanked on one side by a wall of rock hundreds of feet high, while on the other the road over-reaches the cliff, which in places extends dizzily below. There are five miles of this hilly and toilsome road, but before the eye of the traveller extends a beautiful panorama, rivalling European scenery in beauty and picturesqueness. In time the road descends to the sea-level, and at Corner of the Beach commences a long sand-bar four miles in extent. On the right, the waters of the Gulf of St. Lawrence roll in gently, and the air, laden with the tang of the ocean beyond, comes as a refreshing breeze to the traveller who has been sweltering on the Percé hills. On the left is the "Barachois" or lagoon, which at high-water resembles a lake and again at ebb-tide is a muddy flat ornamented with

for, insignificant as this rock would seem to be, it could tell a tale of a good ship wrecked upon its jagged rocks—all on board perishing.

Across the expanse of water stands Ship Head, as though disputing the right-of-way to the River St. Lawrence. Grim and unapproachable at the extreme east of the Peninsula of Gaspé, the great headland forms a break-water, against which the "White Caps" dash in vain. On its brow a lighthouse warns the mariner of its presence. The rocks, popularly known as "old man and woman," were familiar sights at Ship Head, but one has succumbed and the bereaved partner braves the winds and waves alone.

A road across the Peninsula leads to Fox River on the St. Lawrence. Grand Grève is an important place on Peninsula with large fishing establishments.

An old legend of Seal Rock, on the Ship Head Road, tells how the quarter-dollar may still be pointed out, embedded in the rock, where it was placed by his Satanic majesty when settling with the fishermen with whom he had fished all summer.

From Point St. Peter the steamer enters Gaspé Bay. Great bold cliffs, from one hundred and fifty to two hundred feet high, rise perpendicularly, almost from the water's edge. A pretty dip in the high bank is Seal Cove.

Douglastown is the most important place, with its Roman Catholic church, which was the first one erected in this part of the country. The steamer drew up to the breakwater built out in the sea, from which passengers, etc., are conveyed to the shore in a boat.

Seven miles farther and our good ship steamed into Gaspé wharf, and we have reached our destination. Gaspé Basin is a harbour so large and secure that it is a haven for all kinds of craft—here they can ride securely in this safe retreat, let the wind blow and the sea lash as it will outside.

in which there is little resemblance to the Gaspé of to-day.

Gaspé had several visitations in the old war-days. Large settlements were destroyed in 1690, 1711, and by Wolfe in 1758. The number of cannon and balls found in various places indicate that Gaspé was not unknown to the privateers and men-of-war.

Despatches of the war testify that a French ship, "La Caterina," was sunk by Captain Byron in 1760 in Gaspé waters, but I was unable to ascertain the exact location. Dr. John M. Clark, of the State Museum, Albany, has written an interesting pamphlet descriptive of a wooden "portrait medallion" of Jacques Cartier, bearing the date 1704 and the initials "J.C." which was discovered in an old house near Cap de Rosier.

The principal English settlers in Gaspé Basin were Loyalists and soldiers, who took up land after the Conquest.

The earliest were the O'Haras and Stewarts. The first patent was granted to Dean, Captain of the "Mermaid," in 1766, and on this tract of land was Fort Ramsey, a Government reserve for defensive purposes; while on June 17th, 1767, a grant of 1,300 acres of land was given to Felix O'Hara and John McCord, the patent bearing the signature of Sir Guy Carleton. Through the courtesy of Mr. F. Richmond I was able to see the original document. O'Hara is said to have been a lieutenant in the British navy.

Among the early missionaries are the names of Suddard, Cuisack and Arnold. The stone house of the latter still remains, being owned by Dr. Peabody, of New York. With the Episcopalians is the honor of erecting the first place of worship in the Basin. Today comfortable Episcopalian, Wesleyan and Roman Catholic churches represent the religious sentiment of Gaspé. Educational matters are not neglected. Model and Elementary schools, presided over by graduates of McGill and MacDonald Colleges, attend to these matters.

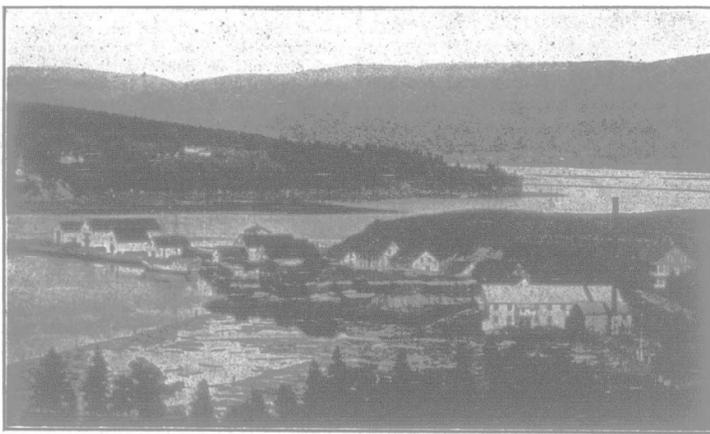
About sixty years ago the road was built for the Government by Messrs. Russell & Sims, and for a quarter of a century Gaspé Basin has held up its head as an incorporated village.

The Gaspé coast has been the scene of numerous ship-wrecks. I interviewed a survivor of the ship "Carrick" from Sligo, Ireland, which was wrecked on Cap de Rosier on May 23rd, 1847.

The passengers were Irish emigrants bound for Quebec. The passage had been rough and uncomfortable, and the ship was twenty-three days out when in a blinding snow-storm the Captain got astray, and at two o'clock in the morning the vessel struck the rock. Glad that the cold, disagreeable day was over, the passengers had retired to rest, when a tremendous shock ensued, and the good ship quivered like a living creature. The vessel was within seventy-five or one hundred feet of the beach. She was lying on an even keel with set sails. Even though the spars were cut, she turned over on her side and one stroke of the angry waves swept her clean.

Only seventeen or eighteen persons, including the crew, were saved—reaching the shore by means of ropes. Numbers were drowned trying to escape; the children were found the next morning in the berths.

Amongst the emigrants were the Crummeyes—father, mother and seven children. Little Bridget, twelve years old, ran upon deck with the other terrified people, but how dreadful the sight which met her eyes. Ere long the ship parted in the middle, precipitating many persons into the icy waters, screaming for the help which none could give. Hastily the Crummeyes' little ones were distributed among their elders. A boy of six years clung to his father, one of eight to his mother; the elder sister clasped the baby, while Bridget held tightly to her three-year-old sister. Alas!



Entrance to Gaspé, Que.

occasional pools of water. On a hot summer day a more pleasant drive could hardly be imagined, but, when the cold rough storms of early winter prevail, there are few more inhospitable places than between the two waters on the sand-bar at Barachois. By means of a ferry in summer, the crossing to the opposite shore is accomplished. Two-and-a-half miles from the mainland is Bonaventure Island fully two-and-a-half miles long by three-quarters of a mile broad. Here Messrs. Le Boutillier have a large fishing establishment.

The next place of importance on the route is Point St. Peter, with extensive fishing industries. The Messrs. Le Marquand have a large establishment for the capture of the valued cod which abound in these waters. A short distance from the shore is the rocky islet of Plateau, upon which a lighthouse has been erected—

According to Mr. Pye:

"For picturesque scenery and quiet beauty, Gaspé Basin is unsurpassed by any other locality on the coast. The shape of the Basin is irregular, being about four miles long, with an average width of about half a mile; but, so completely landlocked, that even when a heavy gale prevails outside there is scarcely a ripple to be seen on its clear, deep water."

Every spot abounds in interest. In this vicinity Jacques Cartier raised the Cross and Fleur de Lis, while in later days Wolfe paused on his way to the conquest of Canada. Gaspé supplied Quebec with fish until 1758.

Through the kindness of Mr. Hamon, Agent of the "C.R.C.," at Paspébiac, I was permitted to see an old picture of Gaspé Bay—the work of Capt. Harvey Smith—which is in their possession, but

The elder sister and the infant were engulfed by the cruel waters, and the poor father, springing to their rescue, with his boy, shared their fate. In the fore-castle a number of terrified creatures huddled for safety. The cold, hunger, thirst and fear they endured may be imagined, but my pen fails in the description. Finally, they were rescued by the inhabitants.

The beach presented a gruesome spectacle, being strewn for a mile-and-a-half with dead bodies. The inhabitants were falsely accused of robbery, but I was creditably informed that they were innocent of the charge. If any pillaging was done, the crew were the perpetrators.

Heaps of five and six persons were common. For a whole day two ox-carts carried the dead to two great deep trenches which had been dug near the scene of the shipwreck. In autumn the heavy storms sweep over their graves; thus peacefully, with no sound excepting those of the winds and waves which play a wild requiem over them, they rest awaiting the call of the Resurrection Morn.

The discovery of oil in Gaspé excited considerable interest. Messrs. Kendall & Campbell were the first who began operations, using a horse-power and ordinary well-digging apparatus. They drilled shallow wells two or three hundred feet deep. The encouraging report of Sir William Logan resulted in the formation of the "Petroleum Oil Trust," a company, composed of French and Irish capitalists, organized about twenty years ago. Wells were drilled five miles apart, till forty were placed, and roads cleared through the woods. The Canadian Petroleum Company also placed six wells.

A wooden derrick was erected; the drilling was done by means of a machine called a walking-beam attached to an engine of from twenty to twenty-four horse-power. A rope was fastened by a temper screw to the end of the walking beam, while the tools were attached to the other end. When the tools stuck, as sometimes happened, they were loosened by jars fastened to the top. A hole fourteen inches in diameter was drilled, into which a wooden conductor leading to the rock was placed. Below this a hole eight inches in diameter was drilled, till the surface water to the depth of seven or eight hundred feet was shut off. The drilling for oil was done with a six-inch hole. Layers of shale, sandstone and lime were passed in succession. At some places, as at Mississippi oil-well on the Mississippi Brook, the oil was discovered between fifteen hundred and two thousand feet below the surface. In other places it was necessary to go as deep as three thousand feet. The deepest well in Gaspé is 3,646 feet deep, and required a year to dig. Other wells yielded from one to twenty gallons a day, steadily through the year, which would indicate that there must be oil somewhere in Gaspé. In a number the oil gas flowed over the derrick, and was exceedingly dangerous, as on one occasion two workmen barely succeeded in getting out when an explosion took place, blowing up the belt-house; a fire ensued and the whole thing was burnt up.

The usual method was to drill six feet, turning the tools with a temper screw, water being poured in to mix the sand, which, with the mud, was removed by a pipe called a "Bailer." It was cleaned out every six feet and the tools changed; the worn-out tools were repaired by the tool-dresser in readiness for the next change. A distance of six inches in twenty-four hours was the usual speed accomplished. Hope was high when as much as two thousand barrels were taken from one well, of which a large percentage was kerosene.

One of the wells is thirty miles distant from Gaspé village. All the outfit was hauled with teams, and the inhabitants still speak of the opportunity for work afforded and the good wages paid by the Company. Six men were employed in each well, viz., two drillers, two tool-dressers, a cook and a stableman, who also attended the drilling well. The managers were Messrs. Foley and Carpenter.

Fifteen years ago the oil-wells were in full bloom, but about seven years ago the work was discontinued, to the great regret of the inhabitants.

During the oil-fever in Gaspé a man embraced the opportunity to play a practical joke upon a man who was having a water-well dug. Securing a bottle of coal

oil, he poured it down the well. Kerosene was very much in evidence when work was resumed. Pressed for his price, the owner was in no hurry to sell—at least, not under value. Unfortunately, for visions of future wealth, the output was short-lived.

Gaspé has extensive lumbering industries. Among those engaged in war upon the woods are The York, The Calhoun, and The Gaspé Lumper Companies.

Gaspé Basin is also essentially a seaport. Many craft of differing kinds and various uses cast anchor in its waters or draw up to its wharves. Among the vessels which are regular visitants are:

The Str. "Princess," with Commander Wakenham in charge, employed in the

Browsings Among the Books.

SOLITUDE.

(By John Burroughs, the veteran Naturalist and Author who visited Toronto recently.)

Emerson says, "Now and then a man exquisitely made can live alone, and must; but coop up most men and you undo them." Solitude tries a man in a way society does not; it throws him upon his own resources, and if these resources be meagre, if the ground he occupies in and of himself be poor and narrow, he will have a sorry time of it. Hence, we readily attribute some extra virtue to

more simple and refined taste loves the seriousness and sobriety of the country.

People find country life dull because they are empty and frivolous; having only themselves on their hands, they can extract no entertainment from such a subject. How can a man profitably commune with himself if the self is small and frivolous and unworthy? He will not go to his own garden for fruit if there be only thorns there.

The finest spirits are not gregarious they do not love a crowd. Crows and wolves go in flocks and packs, but the eagle and the lion are solitary in their habits.

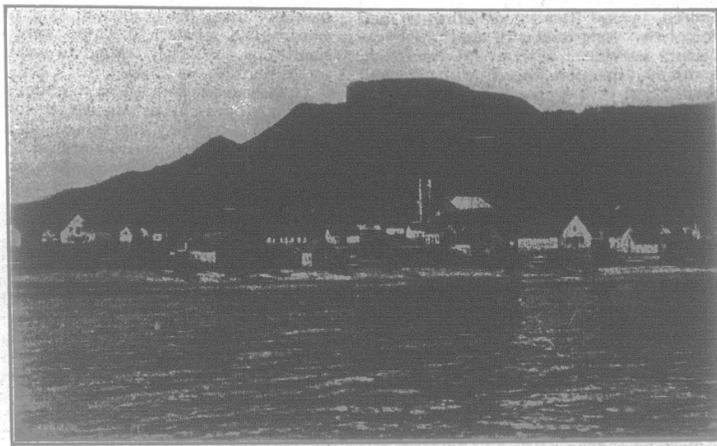
Solitude is not for the young—the young have no thoughts or experience, but only unsatisfied desires—it is for the middle-aged and the old—for a man when he has ripened and wants time to mellow his thoughts. A man who retires into solitude must have a capital of thought and experience to live upon, or his soul will perish of want. This capital must be reinvested in the things about him, or it will not suffice. Either as a farmer or as a student and lover of nature, or as both, can he live, as it were, on the interest of his stored-up wisdom.

"There are things that never show themselves till you are alone," said an old recluse in Mexico to an American traveler who had claimed the hospitality of his hut; "but if you once make up your mind that there is no harm in them, you find out that they are pretty good company."

The old recluse knew what he was saying. Things do show themselves when one is alone; they emerge on all sides; they come in troops from all points of the compass, and one is only master of the situation when he can make good company of them. How your misdeeds find you out! the still small voice of conscience, which you could not hear amid the roar of the town, makes itself heard now; all the past beleaguers you—whether with an army of angels or of demons depends upon what your past has been.

The old recluse, above referred to, the traveler found living in a hut alone in the mountains. He had lived there many years, with no companionship but his dogs. An Irishman by birth, he had tried many parts of the world, and seen many phases of life, and had at last found his place in the solitude of the Mexican mountains. He had learned the art of dreaming with his eyes open, which is the charm of solitude. A man who cannot dream with his eyes open had better not court solitude. Such an old dreamer was found the other day by some railway surveyors on a mountain in North Carolina. He had lived there in his hut for fifty years. He, too, had for companion a dog. If Thoreau had made friends with a dog to share his bed and board in his retreat by Walden Pond, one would have had more faith in his sincerity. The dog would have been the seal and authentication of his retreat. A man who has no heart for a dog—how can he have a heart for nature itself? For many reasons women seldom voluntarily face solitude, but in my boyhood I knew an aged widow who lived all alone on her little farm, in her little brown house, for many years. She kept five or six cows, which she took care of herself, winter and summer. She hired her hay gathered, her wood cut, and that was all. She was a gentle and pious little woman, and her house was as neat as a pin. But think of the long years of solitary life; the nights, the mornings, the meals, the Sundays, the week-days, and no sound but what you made yourself! How intimately acquainted with one's self one must become in such a life! If one's self was not a pretty good fellow, how cordially one would learn to dislike his company! One Sunday, as my people were passing the house on their way to church, they saw her washing. "Hello, Aunt Debby! don't you know it is Sunday?" Behold the consternation of the old dame. She had lost her reckoning and had kept Sabbath on Saturday. The last time I passed that way I saw only a little grassy mound where Aunt Debby's house used to stand.

The poet of solitude is Wordsworth. What a sense of the privacy of fields and woods there is over all his poetry; what stillness, what lonesome dells, what sounds of distant waterfalls! How fondly he lingers upon the simple objects of nature, upon rural scenes and events, and how perpetually he returns upon his own heart! His companionship with hills and trees and rocks and shepherds does not relieve, but rather sets off, his loneliness. He is encompassed with solitude wherever he goes:

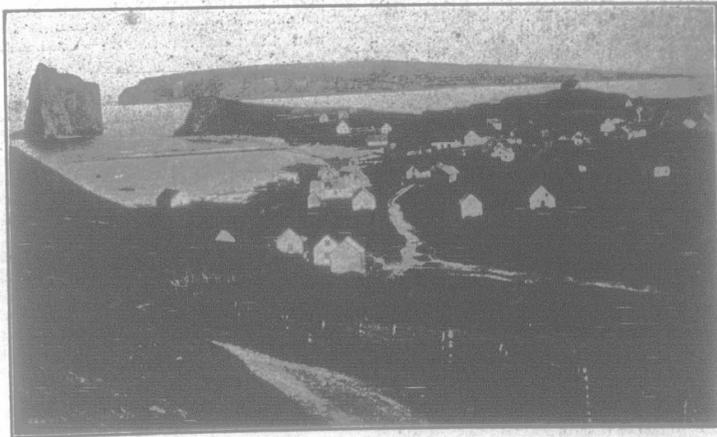


Mt. St. Anne, Percé, Que.

Fishery Protection Service; the s.s. "Cascapedia," "The Lady of Gaspé," "The Gaspesian" and the "Canada." These all carry passengers and freight to various points in the Gulf and Bay Chaleur. The officers of both the "Canada" and the "Senlac" showed great kindness to the homeless people of Campbellton, the "Canada" feeding and conveying twelve hundred persons free of charge to various points on the Bay de Chaleur.

The railway—the Quebec and Oriental—has reached Gaspé, which is at last connected with the outside world by the iron road. Her isolation is over, and, if the wharves of the new steamship company to England are built there, what may not the future hold in store for this rock-bound and hitherto isolated peninsula? Her undeveloped mineral wealth, the products of forest and water, the increased advantages and facilities for tourist travel, will make it possible for this promotory of Eastern Quebec to yield her resources as

those persons who voluntarily embrace solitude, who live alone in the country or in the woods, or in the mountains, and find life sweet. We know they cannot live without converse, without society of some sort, and we credit them with the power of invoking it from themselves, or else of finding more companionship with dumb things than ordinary mortals. In any case, they give evidence of resources which all do not possess. If not "exquisitely made," hermits generally have a fine streak in them, which preserves them in solitude. If a man wants to get away from himself, or from a guilty conscience, he does not retreat into the country—he flees to the town. If he is empty, the town will fill him; if he is idle, the town will amuse him; if he is vain, here is a field for his vanity; if he is ambitious, here are dupes waiting to be played upon; but, if he is an honest man, here will he have a struggle to preserve his integrity. The rapid growth of cities in our time has its



Percé Village, Que.

well as receive more readily the gifts of the world abroad.

Nature has done much for Gaspé. With no niggardly hand has she bestowed her gifts of scenery—mountain and plain, river and head-land, grassy slopes and wooded ridges—which combine a scene of beauty and grandeur not often surpassed.

Here dwells a kind and courteous people to whose readiness to lend a hand I am indebted for much of the information contained in this paper.

That the opening up of this country may bring prosperity to its people is the wish of all who have been the recipients of their courtesy.

dark side. Every man who has a demon to flee from, a vice to indulge, an itching for notoriety to allay, money to squander, or a dream of sudden wealth to cherish, flees to the city, and, as most persons have one or the other of these things, the city outstrips the country. It is thought that the more a man is civilized, the more his tastes are refined—the more he will crave city life, and the more benefit he will get from it. But this may be questioned. It is not, as a rule, a refined taste that takes men to cities, but a craving for a vain superficial elegance, the pride of dress, of equipage, of fashion, of fast living, and the shams and follies of the world. The

In November days,
When vapors rolling down the valley make
A lonely scene more lonesome; among
woods
At noon; and 'mid the calm of summer
nights,
When by the margin of the trembling
lake,
Beneath the gloomy hills I homeward went
In solitude;

and has the same sweet and fruitful fellowship with nature and with his own heart. In his "A Poet's Epitaph" he has drawn his own portrait:

"He is retired as noontide dew,
Or fountain in a noontide grove;
And you must love him, ere to you
He will seem worthy of your love.

"The outward shows of sky and earth,
Of hill and valley he has viewed;
And impulses of deeper birth
Have come to him in solitude.

"In commoner things that round us lie
Some random truths he can impart—
The harvest of a quiet eye
That broods and sleeps on his own
heart."

Wordsworth was solitary because of his profound seriousness, and because great thoughts or deep emotions always create a solitude of their own. What is communing with nature but communing with ourselves? Nature gives back our thoughts and feelings, as we see our faces reflected in a pool. Wordsworth found himself whenever he walked; all nature was Wordsworthian. Another man of equal profundity and sympathy finds nature stamped with his image.

Wordsworth felt akin to all solitary things. He is drawn by every recluse and wanderer; he loves to contemplate beggars, and dwellers or watchers in secluded dells, and to sing the praises of "The Solitary Reaper." A solitary flower, a solitary scene of almost any kind, never failed to move him. What a charm of seclusion in the poem beginning:

"I wandered lonely as a cloud
That floats on high o'er vales and hills."

Or in this other:
"I heard a thousand blended notes
While in a grove I sat reclined,
In that sweet mood where pleasant
thoughts
Bring sad thoughts to the mind."

Or, again, in this immortal song:
"She dwelt among the untrodden days,
Beside the springs of Dove,
A maid whom there were none to praise
And very few to love:

"A violet by a mossy stone,
Half hidden from the eye;
Fair as a star when only one
Is shining in the sky."

Before Wordsworth, solitude had a lover and poet in Abraham Cowley. Through nearly all his essays there runs a desire to escape from the world, and to be alone with nature and with his own thoughts. And who has better expressed their desire and the satisfaction which its fulfillment brings? He longed for the country as an exile longs for home. He says to Evelyn that he had never had any other desire so strong and so like to covetousness as the one he had always had, namely—to be master at last of a small house and a large garden, with very moderate conveniences joined to them, and there to dedicate the remainder of his life only to the culture of them and to the study of nature.

He says: "As far as my memory can return back into my past life, before I knew or was capable of guessing what the world or the glories or business of it were, the natural affections of my soul gave me a secret bent of aversion from them." When he was a boy at school, he was wont to leave his play-fellows and walk alone into the fields. How charmingly he praises "Obscurity" and how pungently he sets forth the "Dangers of an honest man in much company!"

He knew well the virtues which solitude necessitated and implied.

"The truth of the matter is, that neither he who is a fop in the world is a fit man to be alone; nor he who has set his heart much upon the world, though he have never so much understanding, so that solitude can be well fitted and set right but upon a very few persons. They must have enough knowledge of the world to

see the vanity of it, and enough virtue to despise all vanity; if the mind be possessed with any lust or passion, a man had better be in a fair than in a wood alone."

But, after all has been said about nature, that is the best solitude that comes clothed in a human form—your friend, your other self, who leaves you alone, yet cheers you; who peoples your house or your field and wood with tender remembrances; who stands between your yearning heart and the great outward void that you try in vain to warm and fill; who in his own person and spirit clothes for you and endows with tangible form all the attractions and subtle relations and meanings that draw you to the woods and fields. What the brooks and the trees and the birds said so faintly and vaguely he speaks with warmth and directness. Indeed, your friend compliments and completes your solitude, and your experience its charm without its desolation. I cannot, therefore, agree with Marvell that

"Two paradises are in one,
To live in paradise alone."

I should want at least my friend to share it with me.

FROM "TEXTS FOR WOODCUTS."

[Tolstoi: Translated from the Russian by Nathan Hoskell Dale.]

There lived in old time a good master. He had plenty of everything, and many slaves served him, and the slaves used to praise their master. They said:

"There is not a better master under heaven than ours. He not only feeds us and clothes us well, and gives us work according to our strength, but he never insults any of us and never gets angry with us; he isn't like other masters, who treat their slaves worse than cattle, and never say a kind word to them. Our master, he wishes us well and treats us kindly, and says pleasant things to us. We couldn't have a better life than ours."

Thus the slaves praised their master. And here the Devil began to be vexed because the slaves lived in comfort and love with their master.

And the Devil got hold of one of the slaves of this master named Al'yeb. He got hold of him—commanded him to entice the other slaves.

And when all the slaves were taking their rest and were praising their master, Al'yeb raised his voice and said: "It is all nonsense, your praising our master's goodness. Try to humor the Devil, and the Devil will be good. We serve our master well—we humor him in all things. As soon as he thinks of anything, we do it; we divine his thoughts. How make him be not good to us? Just stop humoring him, and do bad work for him, and he will be like all the others, and he will return evil for evil worse than the crossiest of masters."

And the other slaves began to argue with Al'yeb and laid a wager. Al'yeb undertook to make their kind master angry. He undertook it on the condition that, if he does not make him angry, he shall give his Sunday clothes; but if he makes him angry, then they agree to give him, each one of them, their Sunday clothes; and, moreover, they agree to protect him from their master if he should be put in irons, or, if thrown in prison, to free him. They laid the wager, and Al'yeb promised to make their master angry the next morning.

Al'yeb served his master in the sheepcote—he had charge of the costly breeding rams.

And here in the morning the good master came with some guests to the sheepcote and began to show them his beloved costly rams. The Devil's accomplice winked to his comrades:

"Look! I'll soon get the master angry." All the slaves had gathered. They peeped in at the door and through the fence, and the Devil climbed into a tree and looked down into the dv'or to see how his accomplice will do his work.

The master came round the dv'or, showed his guests his sheep and lambs, and then was going to show his best ram.

"The other rams," says he, "are good, but this one with the twisted horns is priceless; he is dearer to me than my eyes."

The sheep and rams are jumping about the dv'or to avoid the people, and the guests are unable to examine the valuable ram. This ram scarcely comes to a stop when the devil's accomplice, as though accidentally, scares the sheep, and again they get mixed up.

Here the master became tired. He says:

"Al'yeb, my dear, just try to catch the best ram with the wrinkled horns, and hold him. Be careful."

And, as soon as the master said this, Al'yeb threw himself, like a lion, amid the rams, and caught the priceless ram by the wool. He caught him by the wool and instantly grabbed him with one hand by the left hind leg, lifted it up, and, right before the master's eyes, bent his leg, and it cracked like a dry stick. The ram bleated and fell on his fore-knees. Al'yeb grabbed him by the right leg, but the left turned inside out and hung down like a whip. The guests and all the slaves said "Akh!" and the Devil rejoiced when he saw how cleverly Al'yeb had done his job.

The khozyain grew darker than night, frowned, hung his head, and said not a word. The guests and slaves were also silent. . . . They waited to see what would be.

The khozyain kept silent a while; then he shook himself, as though trying to throw off something, and raised his head and turned his eyes heavenward. Not long he gazed before the wrinkles on his brow disappeared; he smiled and fixed his eyes on Al'yeb. He looked at Al'yeb, smiled again, and said: "O Al'yeb, Al'yeb! Thy master told thee to make me angry. But my master is stronger than thine, and thou hast not led me into anger; but I shall make thy master angry. Thou wert afraid that I would punish thee, and hast wished to be free, Al'yeb. Know, then, that thy punishment will not come from me; but as thou art anxious for thy freedom, here, in the presence of my guests, I give thee thy dismissal. Go wherever it may please thee, and take thy Sunday clothes.

And the kind master went back to the house with the guests. But the Devil gnashed his teeth, fell from the tree, and sank through the earth.

"Cry out to our people about a passer-by, 'There's a learned man!' and about another, 'There's a good man!' They will be all agog after the learned man and will not look at the good man. We are ready enough to ask, 'Does he know Greek or Latin?' but whether he has become wiser or better should be the first question."—MONTAIGNE.

"It is only by wisely training the physical, moral and intellectual together that the complete man can be found."—SAMUEL SMILES.

"Learning without thought is labor lost; thought without labor is perilous."—CONFUCIUS.

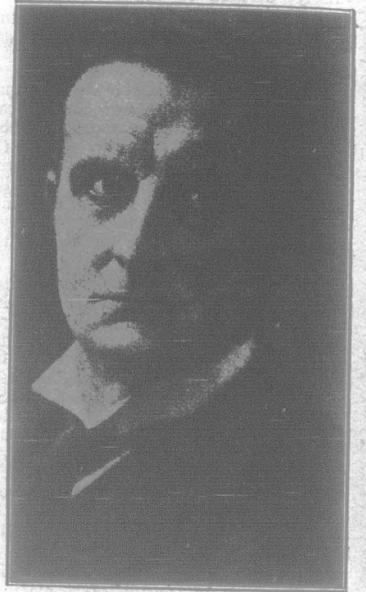
"It is only by labor that thought can be made healthy, and only by thought that labor can be made happy; and the two cannot be separated with impunity."—RUSKIN.

"For this is your duty: to act well the part that is given to you."—EPICTETUS.
"Our grand business in life is to do what lies clearly at hand."—CARLYLE.

A Great British Diplomat.

To be designated the ablest diplomat of Europe by as discerning a journalist as Sydney Brooks, London correspondent of Harper's Weekly, is the distinction that publicists unite in according to Sir Edward Grey, Foreign Secretary in the Asquith Government. At the present time he is unquestionably the outstanding figure in European diplomacy, and to him, more than perhaps to any other, belongs the profoundly important achievement of evolving peace from the seething and titanic turmoil of South-eastern Europe. Great Britain occupying a detached position in relation to the other powers, Sir Edward proved himself possessed of such essential qualities of firmness, sagacity, breadth of mind, absolute honesty and transparency of character that, through the first trying diplomatic ordeals of the 20th century, he has emerged with fame and authority unassailably established. Only a little while ago he was to the world an unknown quantity. Compared with many other contemporary statesmen, he seldom talks, but always with a candor, knowledge, and wisdom that command attention and respect. Beginning with the Franco-German feud over Morocco, followed by the Anglo-Russian trouble in Persia, he has now uninterruptedly guided the vast and complicated affairs of Great Britain for over seven years, charged with many critical situations.

The triple entente which unites Britain, France and Russia, is largely his work. Though conciliatory, he is withal an ardent radical and a convinced supporter of woman's suffrage. He is a Northumberland man, a lover of out-door life, and devoted to active sport, like that of tennis. As an M. P., he has represented Berwick-on-Tweed since 1885; was Under Secretary for Foreign Affairs 1892-95, and Secretary of State for Foreign Affairs since 1905. He was educated at Winchester, and Balliol College, Oxford.



Sir Edward Grey.

Hope's Quiet Hour.

Our Duty as Neighbors.

Judge not, and ye shall not be judged; condemn not, and ye shall not be condemned; forgive, and ye shall be forgiven: Give, and it shall be given to you; good measure, pressed down, and shaken together, and running over, shall men give into your bosom. For with the same measure that ye mete withal it shall be measured to you again.—S. Luke vi.: 37, 38.

It is very easy to preach about "our duty as neighbors," but not so easy to live out one's own sermons. We are so very apt to act as the children used to do when I was young—climb on a little heap, providing a temporary elevation, and say:

"I am the king of the castle,
And you're the dirty rascal."

The children did it in play, but we are more in earnest. When we say unkind things about one neighbor or another, finding fault with the way he does his work or the way she hangs out her washing, of course, we are taking it for granted that our own method is superior. When we pull the character of a neighbor to pieces, in common but dangerous gossip, we are—in effect—saying proudly: "I am holier than he." Let us try to remember our own faults, and then perhaps we shall not be so quick to criticize and blame our fellows. We stand side by side before the throne of God. Compared with His awful holiness, we are all much alike in our sinfulness. One may get cross and another may be insincere; one may be scorned as a "sinner" and another proudly stand apart, like the elder brother in the parable, and be much farther from the Father's heart.

One of our first duties as neighbors, then, is to be humbly conscious of our own faults. We are told that we should love our neighbors as ourselves. We go on loving ourselves, in spite of the sins which make us more or less unlovable. It is so easy to make excuses for ourselves. Adam began that in Paradise, but he forgot to make an excuse for Eve. He did not say that she had

unites Britain, largely his work. With an ardent supporter of a Northumber-land-door life, and t, like that of he has rep- d since 1885; Foreign Affairs State for For- He was edu- Balliol College,

tempted him to eat of the forbidden fruit because she liked its taste and wanted him to enjoy it also. We must love people in spite of their faults.

One of the commonest sins which we ordinary Christians commit, is the sin of sitting in judgment on those who are not accountable to us for their actions. "Who art thou that judgest another man's servant? to his own master he standeth or falleth," says St. Paul. It is not an easy thing to control these unruly tongues of ours. St. James says that if a man never offends in "word" he is "a perfect man," and able to control his whole body. Our Lord says that by our words we shall be justified or condemned.

Our neighbors judge the condition of our souls largely by our everyday conversation. If we are bitter in our criticisms and unfair in our sweeping condemnation of the people we dislike, then we are not only sowing seeds of evil in the neighborhood, but we are driving people away from the Master we profess to serve. Of course, the tongue can only be rightly controlled from within. If a doctor looks at the tongue of a patient and finds it is foul, he does not hurry to wash the tongue, but fights the disease deeper down. If we find our tongues running away with us, it is a symptom that our hearts need cleansing. Plant real love in a heart, and it will show itself in loving words as well as in kind deeds: "Out of the abundance of the heart the mouth speaketh."

Scientists have declared that every word we speak is a vibration of the ether which goes on through space infinitely. They say that words spoken thousands of years ago are still vibrating—perhaps they might even now be caught up by "wireless" in some distant planet. Who can tell when the results of words, written or spoken, shall cease to have influence?

A man in Australia left a page of a printed sermon in a lonely hut. A careless wanderer, who had drifted far from God, picked up the crumpled leaf and read it. Back on his memory rushed the forgotten teachings of his mother, and he arose and went home to his Father in heaven.

Never be discouraged about good seed you have tried to sow in your neighborhood. There may be no visible result for many years, but the life in the seed is not dead, simply waiting.

"Our duty to our neighbors!"—and who are our neighbors? A lawyer once asked that question, and the world became the richer by the inspiring parable of "The Good Samaritan." In the city we can, to a great extent, choose our neighbors. The people next door may be almost total strangers and we may be quite at home in the house across the street. But in the country we cannot choose our neighbors any more than we can choose our brothers and sisters. God gives us our neighbors. Then He must have had some special reason for so doing. Are we carrying out His plan and fulfilling the purpose He had in mind when He placed us near each other?

"The trouble, I think, with us all is the lack of a high conceit; If each man thought He was sent to the spot To make it a bit more sweet, How soon could we gladden the world, How easily right all wrong, If nobody shirked, And each one worked To help his fellow along."

If a man lives in a place for a long time, and the place is no better for his presence there, he is a dead failure. I don't care whether he has piled up millions or not. His life is a dead failure if his neighbors are not in the least helped by him. We are all called—as the apostles were—to be witnesses of Christ's Resurrection. We call ourselves Christians, and all who know us should be able to take knowledge of us that JESUS is Living and is our Friend. They should see some reflection of His beauty of holiness in the purity of our hearts and the kindnesses of our words and acts. Speak often to Christ about your neighbors, ask Him the best way of helping them, and He will keep you from blundering in your attempts at doing great things. It is said that one great philanthropist, of world-wide fame, began by teaching two little street-child-

dren to read. He gave himself to others unsparingly, living with his ragged boys, teaching them and trying to satisfy every reasonable want of their natures—"athletic, intellectual, spiritual, and social." He gave his money freely but wisely—it was an outside matter that he was able to pour out about \$25,000 a year to meet the expenses of the great institution he had founded. Far grander than his money-wealth was his character-wealth. Any of the 15,000 members of the Polytechnic Institute could consult him at any time, sure of sympathy and wise counsel in matters of body, mind or spirit.

That is only one out of the innumerable instances that might be cited of the kingliness of men—of some men. Others are content to sit down comfortably in the mistaken conviction that the world can get along very well without them. Why did God make them at all, if the world would have got along as well without them? Each one of us has his own special mission in life which no one else can so perfectly fulfil. If we are not helping our fellows we are harming them. It is impossible to live in the world without doing good or harm to someone. Even if one is a lonely in-the-universe, and his example can inspire valid, his prayers can reach out and help his neighbors.

The prophet Elisha healed the great General, Naaman, of a terrible disease; but it was the kindly interest of a little for good on the neighborhood.

slave-girl, who had been stolen from her own people, that sent Naaman to be healed.

One very important duty to one's neighbor is honesty. No, it is not likely that you would break into his house and steal his money; but do you always return the things you borrow from him, promptly, and in good condition? What causes so many business failures? It is the carelessness and dishonesty of customers who do not pay their debts. One day a business man showed me a big package of bills he had got ready for the post. "These bills," he said, "will probably be mostly wasted. I have sent them over and over again, and no notice is taken of them."

Dishonest people, who call themselves Christians, do great harm to the cause of Christ in their neighborhood. A cloth manufacturer was accustomed to end his business letters with religious remarks, and one of his customers said: "I wish he would put more religion into his cloth and less into his invoices."

To love one's neighbor as oneself means to treat him fairly. It certainly does not mean to enrich oneself unjustly at his expense, and then exult over a good bargain.

If your religion is only skin-deep, your neighbors will see through it, and will be very apt to despise it and you. If it begins in the heart and is the inspiration of your daily life—on Saturday as well as on Sunday—it cannot fail to tell

"Go, make thy garden as fair as thou canst; Thou workest never alone; Perchance he whose plot is next to thine Will see it, and mend his own." DORA FARNCOMB.

The Ingle Nook.

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

"Snags" and Other Things

Now I am just as sure as though I heard it, that some of those who have been reading this series of articles have been saying: "That's all very well for paper talk; there are snags that these journalists know nothing about." "It isn't always so easy." "It's easy enough to talk,"—and a host of such comments. "Snags"?—Of course there will be snags. Who said there would not be? "It isn't always so easy."—Of course it isn't always so easy. But will you answer this?—Has anything worth while ever been accomplished easily, without work and thought,—yes,



Among the "Marguerites," Or "ox-eye daisies," according to your point of view.

Grey.

Quiet

Neighbors.

not be judged: all not be com- e shall be for- shall be given essed down, and ning over, shall m. For with ye mete withal you again.—S.

ach about "our not so easy to ns. We are so children used to mb on a little rary elevation,

castle, rascal."

ay, but we are we say unkind or or another, y he does his s out her wash- taking it for od is superior. er of a neigh- but dangerous saying proudly: Let us try to and then per- quick to criti- vs. We stand throne of God. al holiness, we sinfulness. One er may be in- ed as a "sin- y stand apart. he parable, and Father's heart.

as neighbors, nscious of our that we should selves. We go site of the sins less unlovable. cuses for our- t in Paradise, an excuse for that she had

strenuous work and strenuous thought? We can't expect not to come upon snags in dealing with children any more than with anything else. We must expect to encounter unexpected tendencies in them, all sorts of complications and perplexing lacks and superfluities, but we can at least try to make way with the snags, try to get over the obstacles. The task may require patience and ingenuity and "brains," but the goal is surely worth while.

"It's easy enough to talk."—Of course it's easy enough to talk, but answer this also: Was anything worth while ever accomplished without either thought or talk? Had it not been for the long succession of educators who have both thought and talked—Comenius, and Locke, and Basedow, and Pestalozzi, and Froebel, and Spencer, and all the rest right down to Madame Montessori, where should we be? Is not someone's talk often necessary to start "our" thought along lines which, perhaps, we would not think out of ourselves? And if we don't think, are we very likely to do?

So don't be afraid to start right in to do your best. Try a little definite teaching on your own account and see how it goes.

As many have found out, the normal child may have introduced to him, and that without overtaxing his mental powers in the least, easy words built into little stories, and the beginning of number-work. The primer authorized for Ontario at present seems entirely too difficult—at least for home-teaching—but any mother who is endowed with the slightest degree of imagination can invent word-lessons that will answer the purpose, passing on to the primer, and then to the illustrated children's books that may be found in any good bookstore.

Number-work presents even fewer difficulties. Counting and calculating may be taught with pebbles, with apples, with flowers, chairs, cows,—anything in sight,—and in such a way that the child will be interested, not bored. Don't keep him at it too long at a time. When interest begins to flag, let the lesson drop for the time.

Too much emphasis cannot be placed on that word "interest," with all that it stands for. Don't give to lessons the appearance of a solemn duty and irksome task to be got through with. Try to have each promise something—not dull, at least. What the child's appetite for knowing more. Once you have filled him with that ambition more than half the battle has been won.

Interest the child in gardening. Let him have, as soon as possible, a little plot of his own, even if it be but a few feet square, and stimulate his ambition to have flowers or vegetables. Interest him, too, in birds and animals, and insect life. To do this you may have to study some yourself, but you will enjoy that if you are provided with books, that are well illustrated and not too scientific, to help you in identifying species.

"But I have not time to do all this fussing," says someone. "I have to leave all that to the teacher. Willie can learn to read after he starts to school, and then he can find out things for himself."

That is true, but the fact remains that the child who starts to school able to read easy lessons intelligently and expressively, able to do easy number-work, equipped with anxiety to learn for learning's sake, and interested in Nature as she presents herself in the fields, trees, and bushes surrounding the school, has received a tremendous start over the child who has received no such stimulation. Not only is he ahead in actual knowledge and power to do, he is already in harmony with the work of the school. No time is lost in adjustment to new and therefore disconcerting conditions. He is in a position to go ahead at once.

When started at such work at home, too, he is able to take many of his lessons incidentally, five minutes now, ten minutes again, and half an hour some other time, with plenty of play-time between. He has not to sit long on a bench. He can be taking his lesson as he walks, or works in his little garden, or sits astride of the window-sill, chattering between the sentences to his

mother or big sister, and so quite saved from the ennui of school. It is quite impossible for any rural school-teacher, with from four to eight grades, to permit this happy liberty. She must have order, and each class must wait its turn. Indeed, it has been often enough shown that children, if taught wisely at home, actually do better if not sent to school until seven or eight years of age, than those sent at five.

School time must come, however, and lucky the child who has been taught to look forward to it happily; but the influence of the right kind of home does not end, nor is it safe even now to shift the whole responsibility off on to the teacher. You see, she may not be the right kind. If she is, the assistance of the parents will only supplement her efforts.

The mother (of course, father, too, or elder brother or sister, or anyone who is interested) can do much toward keeping the child interested in school-work. She can "hear" lessons, and so prevent a possible "keeping-in" later. She can continue to shape the child's ideals. She can keep an eye to the books that he reads, seeing to it that none that are undesirable fall into his hands. She can encourage him to think independently, and do something towards helping him to learn to concentrate his mind on whatever he has in hand—one of the most important rungs on the ladder of education and fitness.

But how wisely, how wisely she must manage all this! Willie must not be kept too long and too steadily at his books lest he fail in physical development and learn to look upon study as drudgery instead of the pleasure and inspiration that it should be. He must not be permitted to become a small snob, proud of his intellectual attainments; rather must he be kept humble by having constantly held before him a vision of the great unexplored countries which lie before him. He must be given the outlook of the great Demosthenes (was it?), who represented himself as standing on a great pebbly shore picking up just a few pebbles from the endless shore of knowledge. Nor must he ever be spoon-fed. Give him just enough telling and teaching to stimulate and direct—that is all—then let him depend upon himself and develop mental backbone.

Teach him to value power to think and do for himself more than being able to recite a multitude of facts. Bear ever in mind that, as has been said, "Much so-called education has value only as information." Pay attention to the lesser object, but keep it subservient to the greater. Do not let learning become "a foil to common sense." Let books be as someone has said, "not spectacles, but incentives."

Above all things, do not attempt to whet the child's ambition by urging him "to try to get ahead of so-and-so," or "to try and beat them all."

A very clever young college man of this city said the other day, "It is only a cad who works hard just for the sake of being at the top," and surely he spoke well.

Urging any child to work to get ahead of someone else can only do him incalculable harm as a human. It can only succeed in making him selfish, jealous, disagreeable, conceited, and mean-spirited. Surely a petty class triumph cannot pay for all that, and yet such urging is far from being uncommon. We have even heard of one father who made a practice of whipping his children every time they did not come out first in class!

Teach the child to study because he wants to "know." If he comes out first, let him see that you are pleased, but do not make a hallilujah chorus over it, and try to make the young winner generous towards those whom he has defeated. Put his manliness first; his scholarship second.

Another false ideal that must be guarded against is that hard study must be accomplished now in order that some easy and lucrative position may be attained afterwards. "I hope to win a scholarship," wrote a boy in England, and then go on to a university to become a professor, and then, ever afterwards, I shall lead an easy life.

Indeed, it cannot be too strongly im-

pressed upon boys and girls that humans are in this world to work; that every one who is worth while works; that only "cads" and cowards seek to get out of it; that work, with an occasional holiday, is infinitely preferable to an all-holiday life; that people who live only for selfish pleasure, degenerate; that whatever one does one should try to do well; that "a modest thing done well is much better than a 'high' one done badly"; that each human in this world should seek to choose as his life-work that which he can do best.

(To be continued.)

ANOTHER LETTER FOR "PANSY."

Dear Junia and Chatterers,—Just a brief call to speak to Pansy, who is resident in my native county.

Somehow, your conditions since your marriage, Pansy, are so similar to mine that I cannot resist sending a message of good cheer. I am wondering just where you reside, for I am so well acquainted with Northumberland County. But fate has destined my home to be in Western Ontario, and my husband also lives on the farm on which he was born. His relatives all live in close proximity, but, oh, Pansy, I am so much "at home." His friends seem so near and dear to me also, and the farm is really the best place in the world. Your work is somewhat different, for, although I also have had three children, only one was left to me, and now she is a busy tot of four, but Junia, she does not always wear white dresses and sit in the parlor. One day recently I missed her, and, on discovery, observed her running at break-neck speed down through the orchard a-hold of a pig by the tail. What would you do in a case of that kind? Well, I simply stood and watched the race.

But, Pansy, if you are not strong you should make it a point to have some outside work,—that is really the best part of housekeeping in summer. My ducks, turkeys and chickens, are such a delight to me, and I have a goodly number of each,—and Junia can certify that I weigh less than one hundred pounds.

By the way, Chatterers, didn't Greybird "hit us hard"—us ex-school-teachers! She stated some facts, nevertheless. I happen to be one of those teachers, who liked the farmer's son's fine horse and buggy. But, Greybird, I happened to like the farmer's son, too,—and listen! I like him yet, and the farm, too. But didn't we have a remarkable fund of knowledge to acquire re housekeeping! And, Greybird, we don't know it all yet. Do you know, I was positively afraid of a broody hen! But now, don't I delight in handling one!

But this is rather a lengthy call, despite my pressure for time. Pansy, please try some chickens and turkeys next year, and tell us your experience.

Hoping to hear from some of our old chatters who have been conspicuous by their absence from the Ingle Nook of late, I shall say adieu.

FORGET-ME-NOT.

Perth Co., Ont.

I think you did the very best thing. Forget-me-not, just to stand and laugh, and let the wee tot finish her race. Don't you think a mother who knows how to laugh is worth everything to a child?

We are so glad to hear from you again. Forget-me-not.—Yes, I remember you quite well, you little, plucky, fair woman.

REMOVING PAINT, ETC.

Dear Junia,—As I have been a reader of your valuable paper for over four years, would you kindly publish in next issue how to take yellow paint out of a white-linen dress? Also a recipe for cornstarch salad? Thanking you in advance, I am,

N. M. K.

Renfrew Co., Ont.

To remove the paint, first cover the spot with olive oil or butter, leave for a while, then apply chloroform.

I have never heard before of cornstarch salad. Perhaps some reader can send a recipe for "N. M. K."

I am sorry that the reply to your questions could not appear in our "next issue," as requested. Have you read the little paragraph at the head of the Ingle Nook Department?

RHUBARB WINE—QUERY RE. CHAUTAUQUA SCHOOL.

Dear Junia,—I am coming to you again for help. Will you please tell me how to make rhubarb wine, either from the raw or cooked rhubarb, or both, if it is not asking too much?

Won't the ones who asked for the address of the Chautauqua School of Nursing, tell us what they think of the course, and if they consider it is worth taking? I, too, would like to become a nurse, but cannot leave home long enough to take the hospital course, and have thought seriously of taking up that one, but would like to have the opinion of someone who has taken it first.

Thanking you in advance, and wishing you every success, I remain a true friend.

SUBSCRIBER'S SISTER.

Muskoka, Ont.

Rhubarb Wine.—Cut in bits and crush 5 lbs. rhubarb. Add the thin, yellow rind of a lemon, pared off, and a gallon of water; cover and let stand 2 days. Strain off the liquid and add 4 lbs. sugar. Put this into a small cask with the bung-hole covered with muslin, and let it work two or three days, then put in the bung and let stand four months, when it is ready to draw off and bottle.

RENOVATING DRESS.

Dear Junia,—I wonder if you can help me out with some information, as you have so often done before. I have a heavy, brown-cloth dress which has become slightly faded in places. Would sponging with ammonia restore the color, or can you suggest something better? In using ammonia, what strength should be used? Thanking you in anticipation,

MRS J. C. H.

Durham Co., Ont.

I regret that I cannot suggest anything that will restore the color to your brown dress other than dyeing. Dyeing with modern dyes is not, however, a very fearsome task, provided the garment to be dyed was well shrunken before it was made up. Different strengths of ammonia water are used for sponging. It is best to experiment with a little bit of the goods.

CANNING GREEN PEAS.

Please let me know, through your paper, what process peas are put through before being canned?

Could they be preserved as well in glass jars, sealed airtight?

If they can be preserved by bottling, how should it be done? Any more information will be thankfully received.

York Co., Ont.

R. S.

All vegetables are harder to can than fruits, the difficulty being due to certain spores which are not killed by one ordinary boiling.

The process for canning all vegetables is as follows:

Thoroughly sterilize the sealers (tin cans cannot be used satisfactorily in an ordinary house) by putting them in cold water and boiling for twenty minutes after boiling-point is reached. The glass tops and tin rims should also be boiled the same length of time. New rubber rings of the best quality should be used, and these should be dipped in boiling water before affixing to the jars.

Use only young, fresh vegetables—peas, for instance, should be quite tender. If it is impossible to can them at once after gathering, put them in cold water, or in a cold, damp place, until you are ready.

When the jars have been sterilized, fill them at once, while warm, with the vegetables—peas, corn kernels, small beans, or whatever it may be—fill up with warm water and place them on a rack in the boiler. Pour into the boiler warm water,—some say up to the neck of the jars, others less, put the rubber rings on the jars and put the glass tops on loosely, then put the cover on the boiler. Boil for one hour. Now remove the lid and screw tops on, letting jars stand in the boiler until next day.

On the second day take off the tin rims and boil again, then screw down as before. The third day boil again, screw down for the last time, and, when cool, put in a cool, dark, dry place. The jars with a spring or clamp top, are much better and more easily handled than those with screw tops. The process for canning with them is, of course, the same, the only precaution necessary to remem-

RE CHAU...
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...please tell me
...either from
...or both, if

ber being to raise the spring each time before boiling, as otherwise the jars may burst.

If you choose you may add a teaspoonful of salt to each jar at the last boiling.

Some simply wash the jars thoroughly, put in the vegetable, fill jars up with cold water and put cold water in the boiler, then proceed as before, depending on the triple-boiling to do all the sterilizing necessary.

Seasonable Recipes.

Strawberry Shortcake.—Sift together 3 cups flour, 2 teaspoons baking powder, a pinch salt, and 1 tablespoon sugar. Sift four times, then rub in 1/2 cup butter. Lastly, make to a dough with 1/2 cup sweet milk. Bake in three layers in a quick oven. When done, butter each well, spread with mashed berries and sugar, and pile layer upon layer. Put whole berries on top. Serve with cream.

Cherry Tart.—Line a pie-tin with pastry. Fill with a mixture of 1 cup stoned cherries, 1 cup sugar, 1 tablespoon flour, and 1 egg beaten very light. Make a lattice-work of pastry over the top, and bake.

Banana Pudding.—Put 1 pint milk over the fire in a double-boiler. Beat 2 eggs with 1/2 cup sugar into which has been mixed 1 teaspoon cornstarch. Stir the mixture into the boiling milk and let cook. When done, remove from the fire and add juice of half a lemon. Line a dish with slices of stale cake, put in a layer of bananas, then a layer of cake, and so on, until the dish is full, pouring a little of the custard over each layer. Pour the remainder of the custard on top and let stand in a cold place, or on ice. Serve with whipped cream.

The two following paragraphs have been taken from University Farm Press News, a publication connected with the University Extension movement, Agricultural Department, of the University of Minnesota:

Canned Strawberries.—A dark-colored, firm variety of strawberry is most desirable for canning. Fill sterilized jars as full as possible without crushing, with firm, clean berries. Then fill the jars with a syrup made by using sugar and water in the proportion of one cup of sugar to one and one-half cups of water. Set the jars, with the covers laid on loosely, in a steamer, or on a rack in a kettle of water and cook until the contents of the jar are scalding hot. Seal, and set away for future use. The filled jars may be set on a rack in a dripping-pan containing a little water, and set in the oven to cook; finish as before. It is well to have extra syrup to use in filling the jars if they see not quite full after cooking.

Two teaspoonfuls of pineapple juice added to a quart can of strawberries improves the flavor. The same amount of lemon juice improves the flavor for some.

A very delicious strawberry sauce is made by sprinkling the washed and hulled strawberries with sugar, three-fourths of a cup of sugar to one quart of prepared strawberries. Allow them to stand over night. In the morning, set in the oven and bake until boiling hot, put into sterilized jars, and seal. Do not allow the fruit to cook to pieces, but simply become boiling hot.

Canning Greens.—Why not can a few jars of beet greens or spinach for winter use. Beet greens are easy to prepare, and plenty of tops are usually available at thinning-time.

Select them when young, and if small beets have been formed the greens will be better. Wash the greens thoroughly free from foreign matter, rinse in several waters, and cook in a small amount of water, or steam them. When cooked enough, usually from twenty to thirty minutes, put into sterilized jars, press down until the liquid covers the top, and seal, and set away for use when desired.

Spinach may be canned in the same manner. If the greens are steamed there will be a small amount of liquid present. Scalding vinegar may be poured on after putting the greens in the jars.

Try at least one can of greens this year. They are cheap, easily canned, and furnish a pleasing and wholesome variety.—Mary L. Bull, Extension Domestic Science Specialist, University Farm, St. Paul.

The Scrap Bag.

PAINT WORN OIL CLOTH.

If the oil cloth or printed linoleum is hopelessly worn, but without holes, give it a coat of paint, then, when it is dry, give it another; then, when the last one is dry, give it a coat of good floor varnish.

PIES.

To prevent the juice of pies from running out, make a small cornucopia of writing-paper and insert the small end in a hole in the middle of the top crust. Sprinkling flour over the fruit before putting on the top crust will often prevent overflowing, as the flour soaks up superfluous juice.

ECRU CURTAINS.

When washing ecru curtains, add 1 teaspoonful of yellow ochre to every quart of the rinsing water. When dry they will look like new.

BLEACH FOR TAN AND FRECKLES.

Two simple bleaches are buttermilk and sweet cream. Use several times a day, allowing to dry on the skin. After coming in out of the hot sun, pat your face with a rag soaked in the milk or cream. After a time, wipe off with rose-water or rain-water to which tincture of benzoin has been added, 12 drops to the pint.

REMOVING A STAIN.

When I wish to remove a stain from any article without giving it an entire washing, I always stretch the portion containing the soiled place over my embroidery hoops, pulling it taut. The ease with which I work under this condition is remarkable.—Miss E. C., Wisconsin.

SETTING COLOR.

Spirits of turpentine, properly used, will set the color, in practically all wash materials. Use a clean wash-bowl; put into it 1/2 gallon cold water and 1 teaspoon turpentine. Wet the goods in this thoroughly, wring them dry and hang them up in the shade. When perfectly dry, sprinkle and iron as usual.

Fashion Dept.

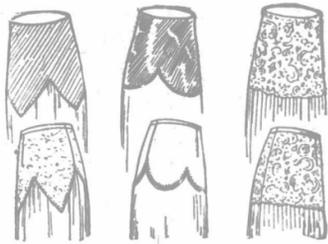
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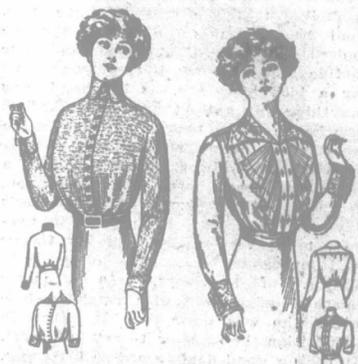
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34 to 40 bust.
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7705 Girl's Tucked Night Gown, 4 to 12 years.
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The Children of the Forest

By Blanche M. Boyd.

[The following chapters are the first instalment of the record of a young teacher's experience in Northern Ontario. Every word is true; nothing has been invented, nor even changed—except the names of the characters who figure in the story. In the simple, directness of narrative, in the charming naivete which appears from time to time, those who have read "Marie Claire" will detect a strong resemblance to the style of the French writer, Marguerite Audoux, who a year or so ago attracted so much attention in Europe.]

Chapter 1.
THE JOURNEY.

The train was moving slowly northward on its way to North Bay, or slowly it seemed to me as, not having a watch with me, the only way of telling the time was by listening for the conductor to shout the name of the coming station, and by examining the time-table, see at what time the train was due at that particular station. We had left Toronto at 5.30 on the Saturday afternoon, and at each station had dropped the passengers until at length, at mid-night, only one other girl remained in the car. She sat in a seat opposite to myself at first, but feeling rather lonely came and sat down beside me. Sleep for us was out of the question, so we whiled away the time, watching the other passengers.

There was an old Dutchman who was on his way to his home in the West, and a rough-looking old fellow he was;

then one man sat with his mouth wide open snoring vigorously, his head thrown back and his feet on the opposite seat; others had their heads hanging over the side of the seats in imminent danger of landing on their heads on the floor. Every other passenger was sound asleep and snoring, and as each station came around the conductor would come with his lantern and arouse a passenger who he knew had reached his destination, and then he would kindly come and talk to us, thus shortening the tedious hours by giving us considerable information about the country, settlers and life in the north.

At 3 a. m. my companion left me to continue my journey alone. The time went slowly on, and when the dawn began to break I enquired of the conductor several times what body of water lay to our left, but he smilingly told me it was naught but a dense fog over the forest which exactly resembled a small lake. Indeed, that part of the country contains a great many small lakes and creeks. About seven o'clock in the evening we had stopped at Allandale, a small town on Lake Simcoe, and when the electric lights were lighted it was so pretty to look across the waters and see the lights in the town on the other side of the lake.

At 5.35 a. m. the train moved in to Powassan, and as I stepped out of the car a rough-looking man came up, enquiring if I were the new teacher, and introducing himself as one of the trustees who had come to meet me. I followed him across the station yard which was filled with logs and chips over which we had to pass, until we arrived at the inn where the landlady gave me a tiny sofa in the sitting-room upon which to rest until breakfast was ready. Curling myself up as comfortably as possible, sleep at length came to my relief, and I slept until 8 o'clock, when breakfast was announced. When this was over I went out upon the verandah upstairs to take a view of the village. Four church spires were visible, which was a sure sign of christianity and somewhat reassuring, for when leaving home I was totally ignorant as to the state of the circumstances, and expected there might be Indians among the scholars, having been told that it was a Hudson Bay trading post village. All the houses were frame and not very plentiful, the main street upon which the hotel stood consisting of about a dozen stores and thrice as many houses.

About 10 a. m. we began our twelve-mile drive in an old muddy buck-board, my companion being considerably the worse for liquor. Strange as it may seem this did not trouble me very much, as the novelty of the scenery was so interesting. On we went through forests and across the bridges formed of rough logs, across the clearings, along the rough winding road, over rocks, roots, and sand, for that part of the country is very rocky and woody. My companion interested me with stories about hunting, shanty life, and about the neighbors with whom I was about to dwell.

"If my son Sam offers you an Indian turnip and asks you to taste it, be sure not to do it, as he is a mischievous boy, and that is one of his favorite tricks." This son Sam I soon learned was a very wonderful boy in his father's eyes at least. The Indian turnip is a deadly poisonous plant, (a mistaken idea.—Ed.) and even touching it to the lips will cause them to swell to an alarming size.

All along the road as far as the eye could reach lay the forest, with here and there a lonely log-cabin with a small clearance around it, but strange to say there were very few fences to be seen, consequently the cattle wandered at leisure where they would, one or two belonging to each settler, however, having a cow-bell tied around its neck in order that the owner might be able to find them.

At one of the creeks we stopped to water the horse, as it was a warm day, and we had been travelling several miles. My companion also threw himself down on the ground and took a refreshing drink. It looked so comical, but that is the way they all do, and at this same spot in the winter time a pail is left to draw water for the horses, and

an axe close by to break the ice in order to procure the water.

At 3 p. m. we arrived at our destination, the home of a Mr. McDonald, another of my trustees. He, however, not having received my letter, did not know that I was coming to his place, but expected that I was to go to Mr. Smith's where arrangements had been made for me to board. Hearing, however, from the former teacher to be sure to go to the McDonald's, they had expected me to come to them soon. Owing to this general belief, Mr. McDonald, having occasion to visit Mr. Smith about six o'clock that Sunday evening, found the house full of men cursing, swearing, smoking, chewing and indulging in coarse talk, waiting for me to come down stairs, as Mrs. Smith led them to believe that I was resting; and they were furious at 10 o'clock when they discovered the deception.

The former teacher who boarded for three weeks out of the two months of her sojourn there, used to stay at school as long as possible, then go home to tea, and after that, wander up and down the bank of the creek with the dog until dark, and then retire to her room, there to cry herself to sleep. She said she had worked in the slums of Toronto but had never entered a home so filthy or wretched as this one, for mice and other vermin infested the place. The heat too at that time of year was great, and the only means of light or air for the upstairs was a hole in the wall which, during a storm or cold weather, was covered with a board, thus throwing the place in total darkness. Her general opinion of the family was, they were all dogs, and Rover (the collie) was the best dog among them, but even he told lies for how could he do otherwise when he was never taught any better. Part of this information I learned from a letter she wrote me, but the worst was found out later.

Doubtless you will be surprised at my going after receiving so unfavorable a description, but I was quite ignorant of the true state of affairs, and was very anxious to find out by experience what a missionary had to put up with.

Chapter 2.

MY SURROUNDINGS.

Mr. McDonald's home was a log house eighteen feet by twenty-one feet, the whole downstairs consisting of one room which answered the purpose of parlor, dining-room, sitting-room, and in the winter—of kitchen. A shed built at the south served as summer kitchen. Out of this living-room was the stair-case which stands almost perpendicularly, and one is compelled when descending to walk sideways or come down at the rate of seventy miles an hour. The boards of the floor in this living-room parted company, which had its "advantages" when one was sweeping, as the dust went through to the cellar below on the potatoes. There were four windows—two on the north side and one on the east and west sides which made the room nice and bright.

The furniture consisted of a home-made sideboard that stood under the stair-case, a large table by the west window, a small medicine cupboard by the east window, a bench upon which the water pails were placed, under the south window. To the north was a home-made sofa (some boards nailed together and scantily covered with black lustre, not very comfortable to say the least) and under the other window was a sewing machine that was very very seldom in use. In the winter the cooking stove was added to the furniture list, and, of course, there were chairs,—about half a dozen kitchen ones as well as a rocking chair belonging to the mistress of the house, and her special property. The ceiling was the floor of the rooms above with the supporting beams showing. The walls were papered with rough brown paper which they told me was felt paper. The floor and wood-work were painted, and altogether the outward appearance spoke of cleanliness—the cardinal virtue in that region.

The up-stairs was divided into three compartments,—the first contained one window facing the west just at the head of the stairs. In this room were two beds, one being surrounded by a couple of sheets hung on wires, to form as it

were two rooms. Beside the home-made beds was a table covered with a cloth and this was adorned with a few photographs and many cards which looked quite artistic.

At the east end of the house were the other two rooms 7½ by 9 feet, one containing a bed, chair and box, while the one allotted to me was honored with a tiny washstand—all these things home-made, and on this was a small enamel hand basin and a milk jug to serve as water pitcher. The end of the bed and this stand under the window took up the whole width of the room, and, with a small trunk added at one end, this den was just big enough to afford me standing room with little to spare. Some nails in the wall served to hang clothes upon, and the logs I used to put my photos on. The roof, of course, slanted down within about 1½ feet of the floor, but was whitewashed as also were the walls. The partition between the rooms was merely thin boards prepared with rough brown paper to cover up the cracks as well as for appearance sake. This partition was not even, in some places being about a yard or more from the top or ceiling, so that all communication in either room could be heard in the next, as, indeed, it could down stairs as well. The door was an opening in the partition over which was hung a sheet nailed up that was a foot from reaching the floor.

The owners of this house consisted of the father—a fine-looking man, rather below medium height, rather stout, with small keen blue eyes (all the settlers have keen sight, owing, no doubt, to their occupation of hunting) a small moustache and fair complexion. His wife, on the other hand, was a tall masculine-looking woman with a very ruddy complexion, small keen blue eyes, and very sharp features. It was readily perceived that she was born to rule, and being so powerful herself she despised weakness of any kind, and woe betide the small fry if they won a cuff or a kick from her, as her hand was anything but a light one; but although she had a sharp tongue, she also had a very warm heart, and in time of sickness hers was always a ready hand if a somewhat rough one. The eldest son, Norman, of 15 years, his mother's favorite, resembled his mother in temper, being very ready with his tongue and quick to act. The other son, Henry, of 14 years, was a merry mischief-loving boy with laughing blue eyes, who was more like his father in disposition, being slow to act but fierce. It took a good deal to arouse his anger, but the flame of passion once kindled was not easily quenched. The youngest child, Annie, was a girl of 13, and about her really nothing good can be said but that she had a pretty face, for she was indolent, slovenly and unprincipled. All the children were about the same size, although in a short time Annie had out-stripped the boys. This, then, is a passing description of the family with whom I had cast my lot for a school year.

Our home was situated on a knoll, and as far as eye could reach nothing but forest was to be seen, except in one place where the forest fire had swept the woodland away with its devouring flames and this brule, as it is called, is covered with burnt stumps and scrubby little bushes, with here and there a gaunt old trunk that had withstood the ravages of the fire. A very desolate place indeed is the brule. The hills prevented one from seeing very far. Between the house and the road was an old log shanty, where the McDonald's had lived until some four years before my sojourn there. To the west side of the house at the foot of the hill ran the water of the "Wissa Wassa" (which means "here and there") creek and wound around through the woods. About a quarter of a mile east was the little frame school-house, and the same distance in the other direction this Mr. Smith lived, just opposite to ours a family by the name of Cameron.

Each farmer was given 200 acres of land by the Government, and although the McDonald family had been there for 15 years they had only 30 acres cleared—the most of any settler in that section, so from this you may form some idea of the amount of bush land. The "cleared" land was full of stumps, which made cultivation rather difficult.

Chapter 3.

THE SCHOOL.

The school-house, as before stated, was a frame one painted a soft grey, situated on the McDonald property, or rather on the half acre of land that Mr. McDonald had given for that purpose, and made from boards from his woods and partly built by him, he having given fifteen days' work on it, so from this it will be seen that education was appreciated by some at all events.

There were four windows, two to the east and two facing the west. The desks numbered twelve, six on each side, and were, of course, home-made, likewise the teacher's desk; two small chairs and two rough benches with the box-stove comprised the furnishings, the benches being for the congregation when service was held. The number of scholars on the roll was 24, and most of them were very clever, industrious and well-behaved children. The tiny ones came in the summer, while the older ones came in the winter. Altogether there were nine classes from the junior first to the entrance class, this being the preparatory one for the collegiate institute or high school.

Never having taught before nor even attended Model (as teachers were scarce) I had to choose my own methods, and teach to the best of my ability. Each class was given a time-table so the scholars soon knew what subject followed another, and as the lessons for the entrance class consisted of English and Canadian history, arithmetic and mensuration, grammar and rhetoric, composition, literature, physical and geological geography, writing, drawing, agriculture, and physiology, their periods were necessarily shorter than those of the other classes. As may be imagined it took a good deal of thought to study out each day's lessons for each class, especially as the attendance was very irregular, which necessitated constant reviews. The consequence was I became not only a talking machine (pretty easy for me) but a walking one too. This, however, did not take place until after Christmas, as the highest class was only the second.

My chief object was to win the children's affections, and thus rule by love and not by fear. To do this I endeavored to make school life pleasant for them as well as instructive. On Friday mornings we would have examinations covering the week's work, while the first classes were delighted to hear a story read or told to them after their work was done, as the school had to be quiet for the writers. This class also had a half-hour recess, morning and afternoon, whereas the other scholars only had half that time.

In the afternoon we would take up the answers to these examination questions, and, having recess somewhat earlier than on other days, the girls would form a sewing class, where I tried to teach them hemming and other plain sewing as well as mending and darning. As two of the girls wanted to learn to crochet, their brothers made them wooden hooks, and with some bits of wool they quickly learned the art. Sometimes as a little treat the tiny girls would do some of my cork-work. In this way they made aprons, towels, part of a quilt or, indeed, knitted stockings for themselves. After half an hour teaching I would read to them, during which time, however, they were at liberty to ask my assistance with their needlework. The boys also enjoyed this hour, and all would listen most attentively. The first book was a story of adventure, but the girls did not care much for this, so we read "Sketches From Life" (a story or rather a number of stories on the Ten Commandments and verses in the Bible, written by a friend of mine), "Mildred's Boys and Girls," and "Eric" (a beautiful school story), etc., which much interested them.

The children were very fond of singing and many were the songs they learned, the favorite of the boys being "The British Grenadiers," the girls had different tastes liking such as "The Sea-Shell's Whisper," "Will and the Bee," but, sad to relate, none were very fond of patriotic songs unless it was "Soldiers of the Queen." One of the worst punishments for the school was that singing should be crossed off the list of periods for the day. The reason for

patriotic music not being so much appreciated may be explained from the fact that the big girls in the highest class were English girls who positively refused to sing Canadian songs except upon rare occasions, and the small children were rather shy of singing them very well alone as the youngest of these girls used to laugh at and tease them afterwards and do what I would this spirit generally prevailed. It was not to be wondered at as their fathers termed all Canadians "bl-owmin' bl-owk-heads." Sad to relate, the people in that district who performed the meanest, most underhanded tricks and gave the teachers most of their trouble were the English, and, of course, their children.

Composition was a most interesting period for them too. One day they would have a long word out of which to make other words, there being great contests to get the most number of words. Another day it would be an autobiography, and it was not very long before they understood the meaning of the word and wrote splendid essays. Then again they would have a story read to them, and rewrite it in their own words. Sometimes they would tell in their own words what they would do with a certain sum of money should they have it, or how to make or do some peculiar things, the happiest day in their lives, a description of their life and the country, what they would like to be and why, etc. As a treat they were allowed to make up a story about anything they liked, and really wrote amusing ghost and fairy stories. One favorite amusement was to discover from observation the habits of the domestic animals or at times be given a flower or piece of wood, etc., and find out by examining it, the beauty. Of course letter-writing was a regular composition, but not much appreciated.

The old-time spelling matches were found most exciting. The captains being chosen by vote, the sides were soon made up one on each side of the school, the words being taken from the first or part-second reader and continued into the second reader, and even the third if any pupil remained standing. It was certainly a downfall to a senior scholar of fifteen when her little sister of eight put her down, although the best speller was a little girl of twelve, to whom it seemed almost impossible, however, to learn arithmetic.

Geography lessons were also interesting, as the scholars would learn a number of definitions which they would illustrate on their slates by drawings and in the next classes memorize the names of countries, counties, country towns, cities, etc., and learn to find them on the map or draw maps and print the names of these on them. When learning these names and how to spell them, each mistake sent the unfortunate scholar down foot, but whoever stood at the head of the class at the end of the lesson received an extra mark.

With writing and drawing they also took particular pains, as they were generally eager to have an "E" on their slates. These marks worked wonders. For every lesson particularly well learned or which showed painstaking on the part of the scholar, even if it were not so very good, always merited a good mark, as well as good conduct, but of course carelessness, laziness, disobedience or talking always forfeited them. At the end of every month the scholars' seats were changed, those having obtained the greatest number of marks for the month sitting in the front seat; and at the end of the term a prize was to be given the scholar who succeeded in obtaining the greatest number of marks; and a young lady friend in Toronto very kindly offered a prize for the best essay written on any subject the pupils chose. These manuscripts were all sent to her to be examined, so that no favoritism could be shown.

You will doubtless notice that the methods used above could not be for the first class, nor indeed were they. This class consisted of six children, ranging from four to ten years and divided into three classes, they having come at different times and, of course, must not be kept back by others. The first of all were learning their letters to both read and write, and as each child would have some letters that were hard for him to

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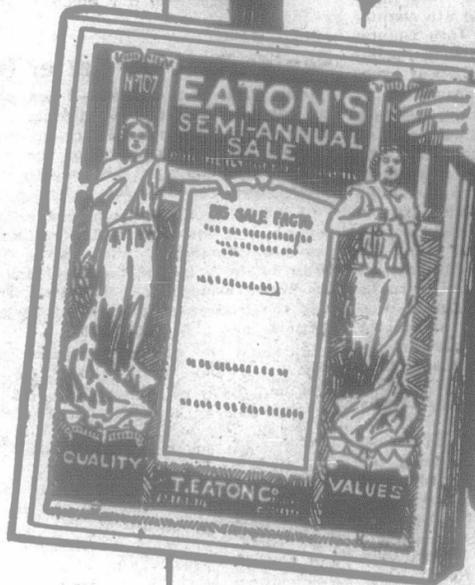
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remember, it was necessary to make up a table about these, such as "T" being a soldier with a gun over his shoulder, "R" a little old man with a pack on his back, and it was surprising how quickly they learned them. But besides the names of the letters it was necessary to teach them the sounds, and by taking four or five new ones a day and constantly reviewing them, it was not long before they were able to be ahead of foot of a class by sounding out some words written on the blackboard, and found it very interesting. Like all children they liked stories read to them, and would ask such funny and yet thoughtful questions. The higher parts of this class were reading in their lesson books, and had to learn how to spell every word contained in each; so you will see that all had an opportunity of obtaining marks.

The children having little or no Bible instruction, each morning I read a portion of the Old Testament, and in the evening a portion of the New Testament, always endeavoring to choose something that they would understand, thus making them familiar with the stories contained therein in their respective order. Then followed a special prayer, the Lord's prayer in which all joined, and lastly the Benediction, all prescribed by the school board. As the Methodist preacher had left some hymn books at the school we began at the front of the book and took each hymn that I knew, and sang one in the morning and a different one in the evening until the children became acquainted with the words, then we would take another, so in this way they learned a great many hymns. When the hymn had been sung each pupil would repeat a verse from the Bible which he or she had learned at home, and by studying these little by little they memorized the 5th, 6th, 7th and 8th chapter of St. Matthew, 14th and 15th chapter of St. John, 23rd, 24th and 24th Psalms and the Ten Commandments. For every verse learned they received a mark.

The parents, however, took it into their heads that the children were not to have any religion whatever at school, and one Englishman informed me that if he wanted his children to learn the Bible he would teach them at home, and it wouldn't be the likes o' me or any other bl-owk-headed Canadian that he would get to teach them. The trustees three times gave orders for it to be stopped, but no notice whatever was taken of the command, and at last I quietly showed them the register wherein was contained the statement that teachers could have scriptural teaching in the school if they wished. After this they could say nothing more.

The sage advice received from those who did a powerful lot of thinking (in their own opinion) was so frequent that at last it became unbearable, and I was compelled to ask them if it were they or myself that was teaching that school, and to tell them, if they wanted the position they might apply for it, but that while I held the position they would kindly attend to their own affairs while I would attend to mine. This naturally did not tend to smooth matters; for, as may be supposed, it was hard for them to see all their dictating and domineering words "waste their sweetness on the desert air."

The children had few pleasures and did not know many games, so I endeavored to teach them some. In the winter they took one of the benches out of the school-house, turned it upside down and used it as a toboggan to coast down the hill just in front of the school-house, the front child hung on to the support at the end, and the other children clung to each other. "Necessity was the mother of invention" certainly. In their haste to resume studies at the call of the bell one day they left the bench on the road where it was run over and smashed by the team of one of the settlers who was "drawing logs." He stopped on his way back and took us all home on top of his three immense logs, which made a load.

The first trial that arose was over my bicycle.

(To be continued.)

The Beaver Circle

OUR SENIOR BEAVERS.

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

Bob-White's Carol.

Still I hear them calling, calling,
Voices that I fondly know,
When the tulip-trees are breaking
In a blooming purple glow;
In a flush of velvet blossoms
Through the pretty Southern town,
Where the furrowed valley stretches
And the rugged mountains frown.
Oh, 'tis then I hear them calling
From beyond the river shore,
Bob-whites in the hazel-cover,
Bob-whites piping o'er and o'er.

When the cotton fields are growing,
Where their blooms begin to show;
And the winds are tripping lightly
Down the long aisle of the row;
There the driver turns at noonday
Laying down his shining plow,
Thinking of the cottage nestling
Close against the hill's green brow;
There I hear them all about me,
Scudding o'er my homeward trail;
There the valley seems to echo
With the carol of the quail.

In a treble note 'tis rising
On the morning's early air;
In a chorus I can hear it
'Neath the dawn-light rosy-fair;
Catch the song that they are singing
With the coming of the light;
Quail that pipe across the valley
In a carol: "Bob,—Bob-white."
And the strain must linger with me
Though my steps should roam away;
It must linger on forever,
On forever and a day.

LESLIE CLAIR MANCHESTER.

—In Our Dumb Animals.

Senior Beavers' Letter Box

Dear Puck and Beavers,—I am going to tell you about a woodchuck. One bright spring morning Hector, a Scotch Collie came bounding into the yard with something in his mouth that looked like a ball of fur

"I guess he has brought me another pet, since I lost my kitty," said five-year-old Marjorie, "div it to me! Drop it, sir!" Hector carefully gave her the brown woodchuck. The little fellow was too frightened to move at first, so Marjorie put him in a basket.

In about a week he became well acquainted and would follow her all over and appeared uneasy if he was out of her sight, so she gave him the name of Jack. He would sit upon his hind legs and eat sugar out of her hand; he also liked bread and butter.

One day he was nowhere to be found until someone looked in one of the cupboard drawers. When it was opened Jack came out, stood on his hind legs and begged for some sugar.

Sometimes Marjorie would hitch him to the doll carriage. He would run around the table enjoying the sport as well as she, but sometimes he would balk in pure mule-fashion.

When fall came he got fat, and would only eat once a day and got sleepy. So Marjorie thought he must be ill. But when her father told her he was just getting ready for his winter's sleep, she dried the tears from her eyes.

One day in September Jack started to dig a hole in the back yard. When he got it deep enough he carried in some dried grass and leaves, and did not come out for three days, then he came out, sat on his hind legs and begged for sugar. When he was satisfied he went back in again.

No matter how much Marjorie whistled she would just get an answer back; that was all.

One day the family saw him coming home across the field trying to coax another woodchuck to follow him. They wondered how Jack had managed to get one so gaunt and slim like himself, but he did not get her any farther than the stone wall, where she would sit and watch him.

In the spring when Jack came out he

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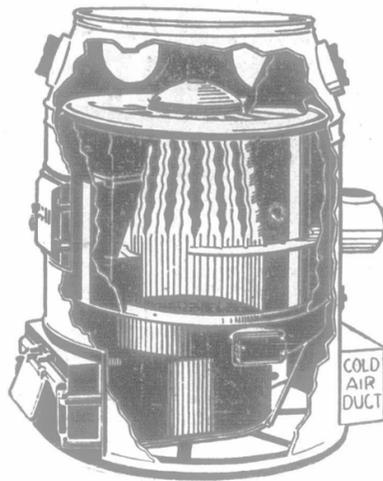
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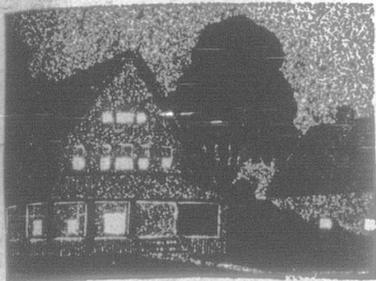


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THE SHERLOCK - MANNING PIANO CO.
London, (No street address necessary) Ont.

Lily smashed the Royal Gems
And drowned the keeper in the Thames!
What does this girlish prank denote?
Oh, just that Lily wants to vote.

was very thin after his long winter's sleep.

One day in March he came back with his wife and five children. When the little ones got bigger they would play in the garden. Now I will close.
Shedden, Ont. FRED SHERIN.
(Age 14.)

Dear Puck and Beavers,—How many of the Beavers like out in the bush picking flowers? One evening last week my sister and I went out to the bush. There were big beds of blue and white violets with big, long stems. Yesterday evening I went out myself, but I did not get very many. I got a flower that I did not know the name of. Today, when my school mate and I were looking for flowers at recess, we nearly stepped on a little gray bird's nest. There were four eggs in it. They are about the shape of a robin's egg, but they are not nearly so big. There is a robin's nest beside our gate with three blue eggs in it. I would like if some of the Beavers would write to me; if they do I will answer.
Caledon, Ont. LILLIAN SPEERS.
R. R. No. 1. (Age 11.)

Don't gather too many wild flowers, Lillian. Leave plenty to go to seed. You see if we don't take good care of the wild flowers very soon there will be none at all.

Dear Puck and Beavers,—This is my first letter to you. I live on a farm of ninety-eight acres. I have five brothers and three sisters. I am twelve years of age, and am in the junior fourth class at school. I go to school every day. The church and school are taken off our farm, so I don't have far to go. We started up a new Sunday school here, and we are getting along fine. My father is superintendent.

We started to make an agricultural garden at school this spring. One day last week our teacher took us up to one of our nearby neighbors to judge horses. One other time she took us to another place to judge cattle. Sometimes we take an hour's study in geography or nature study at a nearby creek. This makes our work very interesting.

My father takes "The Farmer's Advocate" and has done so for a number of years. Well, I think my letter is getting rather long. I remain,
GLADYS CLARK.
(Age 12, Class Jr. IV.)
Ravenswood, Ont.

Dear Puck and Beavers,—I am just going to write some riddles, and if you don't like them, Puck, just throw it into the w.-p.-h.

What lions are allowed on the lawns of the public parks? Ans.—Dandelions.
There was a man of Noah's race, he had a certain dwelling place; neither in heaven nor in hell, nor on this earth where man doth dwell, nor in the sea or on the shore, he dwelt where man never dwelt before. Ans.—Jonah in the whale.
How far is it from February to April? Ans.—A march of thirty-one days.

What goes around the house and makes two tracks? Ans.—A buggy.
When you can't get fine cloth to make clothes out of, do you know what to get it of? Ans.—Of course (coarse).
When is a Scotchman like a donkey? Ans.—When he stands on the banks and braes.
I have a little sister, they call her "peep, peep," she wades in the water deep, deep, deep; she climbs up the mountain high, high, high; my poor little sister has only one eye. Ans.—A star.
I guess this will be all the riddles. Puck you are a good old fellow to put all those nice things in the Advocate for us to read.
CHARLOTTE REBAH POTTER.
Loyal, Ont. (Age 10, Book III.)

Honor Roll:—Lena Cross, Ruby Williams, Clara Neil, Ivan MacDonald (Nova Scotia), Jack McWilliam.
BEAVER CIRCLE NOTES.
Lena Carr (Age 14) Dresden, Ont., wishes some of the Beavers would write to her.

Please address all letters intended for this department to "The Beaver Circle," "Farmer's Advocate and Home Magazine," London, Ont.

OUR JUNIOR BEAVERS.

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

THE LIGHT ELVES.

(A Scandinavian Myth.)

The little elves were idle folk. In ages long ago, Till Father Odin scolded them For wasting moments so.

"But we've done nothing wrong on earth," The little elves cried. "Have you done something that was right?" "Ah, no," the wee folk sighed.

Dear Puck and Beavers,—This is my second letter to your circle. I was encouraged by seeing my first one in print, so when I have nothing to do I will drop you a letter. I will write on birds this time. I like robins, canaries, and woodpeckers and greybirds. There is a robin's nest up in one of our pear trees. I think the robin is a nice singer, don't you, Puck?

On Saturday, as I was walking along the road, I saw a small snake. It stuck out its red stingers, but I threw a stone at him and he ran away. I have five pigeons; two are young ones. My father and grandfather have taken "The Farmer's Advocate" for many years, and would not do without it. Now I must say good-bye, wishing the Beaver Circle much success. I remain, your little friend.
Auburn, Ont. ELDEN H. STOLTZ.
(Age 8, Jr. III.)

The "red stinger" of the snake was just its tongue, Elden. Yes I love robins.

Dear Puck and Beavers,—I enjoy reading the letters very much, my father has taken "The Farmer's Advocate" for a very short time, and I thought I would like to join. We have a dog called Jap, and I have a brother and sister going to high school. I go to public school. Our teacher's name is Mr. Shellinglaw, and I like him fine. I will close with a riddle.

"As round as an apple, as busy as a bee, the prettiest thing I ever did see. Ans.—A watch. EVA STRONG.
Seaforth, P. O. Ont. (Age 8, Sr. II.)

Dear Puck and Beavers,—My papa takes "The Farmer's Advocate" and I enjoy the letters of the Beaver Circle very much. I have a brother thirteen years old, and he watches for the mail to come so he can read the Advocate.

I go to school and am in the first book. I have only one-half of a mile to go to school. My teacher's name is Miss Hunter, and I like her very much. For a pet I have a Shetland pony which I call Teddy. I have a cart and harness for him, and I have lots of fun hitching him up and driving him. I like riding on his back too.
I wonder if any of the Beavers hid any eggs last Easter. I did and on Easter morning brought in 126. Well, I guess I will not write any more till I see whether this escapes the w.-p. b. or not.
MILDRED WILCOX.
Springford, Ont. (Age 7.)

Dear Puck and Beavers,—I thought I would write to the Circle. I never wrote before. So I hope it will escape the w.-p. b. My father has taken "The Farmer's Advocate" for twelve years. I go to school every day. I have about one mile to walk. My teacher's name is Miss McFarlane. We all like her fine. I am in the second reader. There are twelve children going to our school. I have a pet colt; his name is Charlie. Wishing the Circle every success.
Iona Station. MUNGO CAMERON.
R. R. No. 3. (Age 11.)

Dear Puck and Beavers,—I thought I would write a letter to the Circle. My father has taken "The Farmer's Advoc-

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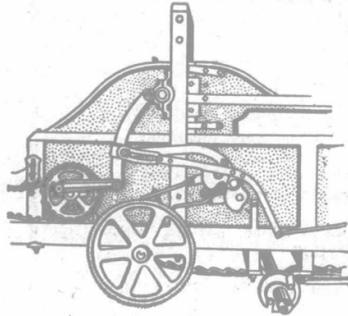
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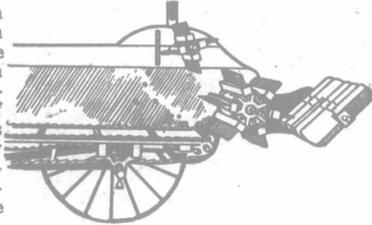
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I want to buy fifty (50) Jersey Females under seven years. Must be good ones in fair condition.
BOX B, FARMER'S ADVOCATE, TORONTO

cate" for three years, and I like reading the Beavers' letters. I go to school every day, and I am in the first book. Our teacher's name is Miss Houston, and we all like her very much. For pets I have two rabbits and a dog; his name is Captain. He and I go for the cattle every night in the summer. As my letter is getting rather long I will close.
CHESTER MEDILL.
(Age 7, First Book.)

Moorefield, Ont.

Mending Basket.

Difficulties Lying in the Path to Woman Suffrage.

Possibly the greatest question confronting the civilized world to-day is that of equal suffrage for men and women. That the cause is gaining ground no one can deny, but the march of progress seems slow when we consider that it is forty-two years since the women were enfranchised in the State of Wyoming. There must be a reason for such slow progress, great difficulties must lie in the path. In this article I shall try to enumerate some of the greatest difficulties which I can see, and which were not mentioned in the articles appearing in "The Farmer's Advocate" of May 24.

The militant suffragettes of England are no doubt working against the cause when they undertake a work of destruction, hit and miss, about the country. They seem to be a class of people who have tired of the reign of peace and want "something doing," but I do not believe that woman suffrage forms much of the prize for which they are fighting. No Government can yield to the demands of a movement of organized unrest that does deeds of shame which even the anarchists would not do. These deeds of shame have caused many noble women, as well as men, to become disgusted with the whole movement, and public opinion counts more to-day than ever before. If a person believes in woman suffrage, it requires a great deal of nerve to say so when public opinion calls him or her a suffragist, and classes all such with the militant suffragettes, so popular in the courts of England. About the only well-known reasons for enfranchising the women are those given by rattle-brained suffragists. These are well advertised, but the reasons that are worth while are never heard by many. A lot of old maids and silly girls have said that if the women voted they could command salaries equal to men for equal services, in such positions as teachers, lawyers, etc. Any reasonable person can see the folly of trying to keep a nation going if men who have families to support receive so higher pay than spinsters. The reasons which spinsters give are not representative of a nation whose women are wives and mothers. About all these people say on marriage would mean, when boiled down, "Make divorce easier." Is this in the interest of the nation?

One of the arguments brought forward by suffragists is, "Taxation without representation is tyranny," but Governments of to-day explain taxation thus: A person who owns a valuable property pays a high tax, and in compensation for his tax so paid, all the machinery of the law is available for the protection of his valuable property. A person with less valuable property pays a lower tax because he has less property to be protected. If taxation justifies representation, minors and foreigners who own property have a right to the vote.

Are the women of to-day qualified to vote? Do they, as a rule, know more about government than men know? Have their lives trained them to understand most government projects, such as the building of canals, bridges, railways, roads, telegraph and telephone lines, the dredging of rivers, and the protection of trade and commerce? You say that men know little about such things. I admit that you say the truth, but will doubling the present ignorant vote improve matters?

Men have solved many problems, but allow me to call your attention to one problem, entirely the women's, called the servant problem. Why do so many girls prefer to work under the direction of men in factories and stores, at less than

a living wage, when domestic service offers work, better adapted to girl nature, at a wage of enough and to spare? A child at school is not given mensuration before he has solved the simple problems in addition and subtraction.

What is government? When boiled down, government, of the present day is, to a great extent, brute force.

A mother may govern her child largely by persuasion, but show me the person who has not, at some time during early life, felt the brute force of government in the form of a "licking." National government is on the same plan. The Government is not the party in power, nor the army and navy, but the rank and file of the nation's voters, who make the laws, and who must also enforce them. The voter must defend the country in time of war, and protect life and property at all times when protection is needed. He who says, "Thou shalt not steal," must not rest until he has done his best to punish the thief. Is it in the interest of the nation for its women to become a part of such Government?

There is no privileged class among voters; all must stand on equal footing. So long as a man can help to support the nation he is given a vote, but when the nation has to support him he is no longer allowed to vote, because, by his vote he might make it harder for the nation to earn his daily bread. Thus far this rule has worked in regard to the women who vote. For this reason all Mormons are suffragists. By giving his wife, or wives, the vote, the lazy Mormon relieves himself of the painful duty of supporting them.

How has woman suffrage worked out where it has been tried? In Colorado, Utah, Idaho, and Wyoming, women have voted, respectively, for from fifteen to forty-two years. In Utah, women have not rooted out polygamy. Twelve states in the American Union have laws to prevent children working in factories, etc., at night. Colorado, Wyoming and Utah, have no such law. Twenty-eight States provide for factory inspection. Wyoming has none at all. Twenty-one States have juvenile courts which they secured without the votes of women, except in Colorado. Thirty-eight States compel seats for women at work—Idaho does not. In Colorado, husband and wife are jointly liable for household finance.

In no woman-suffrage State can a woman compel her husband to support her, while in New York a man cannot pawn an old suit of clothes without his wife's consent. Truly, the best laws for women and children do not exist in those States where women vote.

These are some of the difficulties which must be overcome. Let us not hold up our hands in holy horror before them, but face them manfully and womanly, remembering that the vote, for women must come, and that every person's help is needed in putting up a clean, decent campaign in overcoming the difficulties and marching toward the goal of a higher civilization than this world has yet dreamed of.
H. L.

Lennox Co., Ont.

The Teacher a "Unit by Herself."

Editor "The Mending Basket":

With your permission, I would like to take up a small space in "The Farmer's Advocate" to reply to Greybird in her discussion of "The School-teacher." I was not present at the Women's Institute Convention, but I quite agree with Prof. McCready if he made the statement that the teacher in the rural school is a unit by herself in the community, and I think if Greybird and other members of the Women's Institute discuss and fulfil their duty to the children of the day and to the teacher as well as does the average teacher, they will have no time to discuss the personality, capabilities or shortcomings of the teachers. The teacher a unit by herself! I rather think so, in most communities at any rate. I would not say that all trustees are "uncouth, unlettered men," but certainly many of them are, and the majority of them know and think of little but how to get and save money; the teacher is bartered and cut down in salary regardless of capacity or experience, and when she has secured her position she finds a poorly-equipped school—no conveniences or modern improvements—and a board of trus-

ees who think that the equipment which was placed in the school when it was built thirty or forty years ago should last and be sufficient for ever. And there the teacher is expected to train up the child and educate him, teach him everything good and needful, and unteach all the evil and bad habits he has learned before he came to school. From whence cometh her aid? Not from the parents generally; not often from the Trustee Board, but from her own experience, her own tact, and her own resources.

Why does not the teacher take an interest in Institute work, and thus spread her knowledge over the community? If she does not do so, there are many reasons. Perhaps some young teachers are too bashful, and do not feel capable of reading papers before a society of women, many of whom are many years her senior. Teaching school before a group of little children, and reading a paper of your own composition before a group of criticizing women, are two totally different things, and reading that paper may be just as hard for some young teacher as teaching forty or fifty children for one day would be to a farmer's wife.

Then, a teacher may feel that, as she is paid to teach school, and not to educate the Women's Institute, her time belongs to the children, and if she has not time for both, the Institute may get along without her.

But I think the principal reason in many cases is that the teacher knows that she is begrudged a half-holiday, or even a few hours off duty, and if she should close school to attend an Institute meeting occasionally, she will be up on the carpet for robbing the section. Many teachers are not brave enough to face that situation. We know one teacher who prepared a paper for an Institute meeting, walked three and a half miles on a hot June day to read it, and then was censured as we have just stated, but it has not prevented her from taking an interest in Institute work, and, although she seldom attends a meeting, she is a member of the Programme Committee, and prepares papers for others to read. We believe that every teacher would take an interest in the work were it not for the fear of criticism for neglecting school duties. How can you expect a person to become and remain interested in something from which she has so seldom an opportunity to obtain any enjoyment or benefit?

After all, why should the teacher be interested in the Institute when the Institute takes so little interest in the school? The school is practically the teacher's domicile, and the place where the children spend at least six hours of the day. How many parents are ever interested enough in their children's welfare or the teacher's work to visit the school and see how the school is managed, or commend the teacher and pupils in their work? I have taught in rural schools in Ontario for fourteen years, and in that time have not once had a visit from a mother unless we made an "At Home" or something of that kind and specially invited them. Turn about is fair, and if you expect the teacher to take an interest in you and the Institute, take a slight interest yourself in the teacher and the school, not in a criticising spirit, but in a spirit of encouragement and helpfulness.

A school-teacher better than her peers! Never, but often better than those about her. A teacher may learn many things from a farmer's wife, just as a farmer's wife may learn many things from the teacher. There are teachers and teachers. Yes, and there are farm wives and farm wives, and, thank Heaven, they are not all so narrow-minded as Greybird appears to be. "Book learning is not all of education, nor is a knowledge of how to cook, stew, and bake, but a knowledge of how to look at a subject from all view-points is also a part of education, and a part which we think was sadly neglected in Greybird's education. We judge from her letters that there is just a little trace of jealousy in her sarcastic criticism of some poor teacher who has been unfortunate enough to fail to appreciate Greybird's knowledge of the art of cooking, etc., or she would not pick out one example of a helpless teacher and hold her up as a sample of the rural-school teacher. There are teachers, we must admit, who know

very little about any work outside the school-room, just as there are housewives who know nothing of any work outside the house, and very little of that, but they are not common. I am a teacher, and a farmer's daughter, and I am proud to say that I can and have done all kinds of house-work, garden-work, and field-work, know a little about music and fancy-work, and when I go home for my vacation, I can take my place there with the workers and spare someone else, and I believe there are many, many such teachers. But we love our schools, and they come first with us. I do not think it would be any great crime for a teacher who had been raised in the city and had never seen a daisy grow, to be unable to recognize a daisy when she saw one for the first time. I would not call that ignorance. There are many things that teachers would know and understand that Greybird or any other farmer's wife would not have a single idea about.

Yes, Greybird, there are boarding-houses and boarding-houses, and we know a good deal about them, and we are thankful we do not board in Greybird's home if she expects us, after teaching school all day, overseeing, directing and managing forty or fifty children ranging from five to sixteen years, who, to use their mother's words, are nuisances or annoyances at home, and must be sent to school to be kept out of the way if for nothing else, to do for her all the "summer girl" did. Tom Sawyer discovered a great principle—that play consisted of what we are not obliged to do, while work consisted of what we are obliged to do, and this was the principle on which the "summer girl" worked. We often find that when we are willing to act "the daughter part" to our landlady, she is ready to become a tyrant and make of us slaves and "apron-string" girls. Of course, we owe some respect to our landlady, but the landladies and women of the section do not know nor realize what opportunities they have of befriending and helping the young teachers who come among them, if they would use a little of that tact and interest which Nature intended every woman to be possessed of.

We don't blame you, Greybird, for feeling sore at that empty-headed teacher who looked down on you and then went driving with your son in his new buggy just when you wanted to go for a drive, but do not be too hard on her. Perhaps she is young and giddy, but some of that class turn out well when they become a little older. Just take her in hand a little yourself, interest yourself in her and her work, and if she is any good at all she will soon become interested in your work, and you may some day make of her an excellent housewife.

SCHOOL-MARM.

Wentworth Co., Ont.

News of the Week.

CANADIAN.

Eight were killed and fifty injured in an accident on the C. P. R., near Ottawa, on June 25th.

Seven died in Toronto as a result of the extreme heat on June 27th.

Contracts have been let in Toronto for the construction of a fine new Union station.

At the Medical Convention held in London, Ont., last week, Prof. Adami, of Montreal, Chairman of the Canadian Committee appointed to inquire into the Friedmann cure for tuberculosis, reported that, so far, no benefit whatever has been found by the committee as a result of the "cure."

Caterpillars, both "tent" and "forest," have been invading Eastern Ontario during the past fortnight, causing great destruction of foliage in orchards and wood-lots.

Rideau Hall, Ottawa, the residence of the Governor-General, is to be reconstructed at a cost of \$125,000.

Arthur Meighen, M. P. for Portage la

COMFORT SOAP

"IT'S ALL RIGHT"

Makes Monday shorter, easier, cooler.



POSITIVELY the LARGEST SALE in CANADA

THE SHEATH ROD

Mr. W. S. Rogers, State Fire Marshall, of the State of Ohio, says that "The metal in a Lightning Rod should be so shaped as to give a large surface, because the current caused by a thunderbolt is of the sort that travels near the surface of a conductor." That is called "Skin Effect," for the electricity crowds into the one-thirtieth of an inch next to the extreme surface.

There is a form of Rod known to the Trade as a "Sheath Rod," which is of Ideal Construction. The copper is on the surface where the current goes.

The "Sheath Rod" with greatest conducting surface is the "UNIVERSAL." It is fastened with a Lock Joint.

Would you like to see a sample? Drop us a card.

Our goods are "Made in Canada," by

THE UNIVERSAL LIGHTNING ROD CO.
HESPELER, ONT.



Will run on cheap fuels

"The Fairbanks-Morse Engines are the best we have in this part of the country. They are simple to operate and give the greatest amount of power for the least quantity of fuel."—M. F. MacLeod, Spring Hill, Que. In the construction of

Fairbanks-Morse Farm Engines

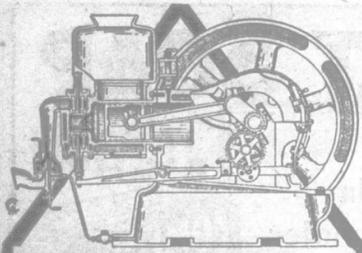
fuel economy and power efficiency are given special attention. The result is an engine that runs effectively on gasoline, kerosene or low grade distillate—maximum results at a minimum cost. The cost of engine distillate is less than one-fourth that of gasoline. Fairbanks-Morse engines are made in any size from 1 to 200 h. p. Vertical or horizontal, portable or stationary. Equipped with Bosch magnetos and guaranteed.

The Canadian Fairbanks-Morse Co.
Limited,
Montreal

Send for this booklet—
"49 Uses for a Farm Engine."
It is full of valuable information for the farmer and is free. Fill in the coupon and mail now.

Please send me your free book.

Name _____
Address _____



MASSEY-HARRIS ENGINES

are Famous for Efficiency and Economy.

Their high efficiency, coupled with their economy of operation and durability, combine to make Massey-Harris Engines, without exception, the most reliable and and satisfactory on the market to-day.

They give maximum of power with minimum consumption of gasoline, and require less repairs than any other.

Gasoline Storage is in the hollow, cast-iron Base, which is part of the Main Frame and is absolutely tight - no danger from leakage.

Massey-Harris Co., Limited.
Head Offices - TORONTO, CAN.

Branches at -
Montreal, Moncton, Regina, Winnipeg, Saskatoon, Calgary, Yorkton, Edmonton.

Agencies Everywhere.



GRAND TRUNK RAILWAY SYSTEM

ONLY LINE REACHING ALL SUMMER RESORTS IN HIGHLANDS OF ONTARIO

including Muskoka Lakes, Lake of Bays, Georgian Bay, Algonquin Park, Maganetawan River, French River, Timagami, Kawartha Lakes.

Full summer Service now in effect to all of above resorts. Write for full particulars and illustrated folders to any Grand Trunk Agent.

HOMESEEEKERS' EXCURSIONS
Each Tuesday until Oct. 28, inclusive.

WINNIPEG AND RETURN\$35.00
EDMONTON AND RETURN\$43.00

Low rates to other points. Return limit two months. Pullman Tourist Sleepers leave Toronto 11.35 p.m. on above dates running through to WINNIPEG via Chicago and St. Paul without change. Tickets are also on sale via Sarnia and Northern Navigation Company.

The Grand Trunk Pacific Railway is the shortest and quickest route between Winnipeg, Saskatoon and Edmonton.

Tickets now on sale at all Grand Trunk Ticket offices.

Prairie, was sworn in as Solicitor-General of Canada, at Ottawa, on June 26th.

BRITISH AND FOREIGN.

The Bulgarians and Servians, who are now at odds with each other, fought a fierce battle, on June 25th, on the banks of the Zlevoto River.

According to the tariff-revision bill passed by the United States Senate, raw wool will henceforth be admitted free into the United States, and free sugar from 1916.

Raymond Poincare, President of France,

was entertained as a royal guest by King George during his visit to England last week.

The Duke of Sutherland died in Scotland last week. He was owner of one and a half million acres of land in Scotland, and about 60,000 acres in England and other countries.

Gossip.

SHORTHORNS AND ANGUS AT ROYAL COUNTIES SHOW.

At the Royal Counties Annual Summer Show, held this year in Home Park, Windsor, June 10-13, Shorthorns made a strong showing. The King sent representatives of his herd and won several important prizes. The class was judged by Arthur Gibson, well known in Canada. In the aged-bull class, Messrs Dean & Sons were first with their Scotland's Standard, by Star of Scotland. The two-year-old class was led by Earl Manvers' red Marquis of Dorchester, by Duke of Kingston 2nd. In the class for yearling bulls, Sir Walpole Greenwell won first with a very thick, light roan. The cow class was a strong one, the first prize going to W. M. Scott's Gay Maid, by Defender. In the two-year-old heifer class, the King's Windsor Belle, by Evander, was the winner.

There was keen rivalry in the yearling-heifer section, the first award going to the King's red heifer, Golden Bud, by First Attempt, and second was Mr. Cazale's Gipsy Countess 3rd, by Phingask Comet. The male championship went to Earl Manvers' two-year-old, Marquis of Dorchester, while the female championship was captured by the King's two-year-old, Windsor Belle. In the pedigree dairy Shorthorn cow class, the first prize was won by Mr. Lutwyche's red-and-white cow, Kethlenda, by Golden Crest. Her yield was 34 1/2 lbs.

The classes for Aberdeen-Angus cattle were well filled, the heifers being the best of the section. In the aged-bull class, Sir Geo. Cooper's Bandolier of Hursley, by Black for Ever of Ballindalloch, was first, and J. J. Cridlan's Everard 2nd of Maisimore, was second. The winning cow was Mr. Cridlan's Tulip of Standen, of Captain Cookson's breeding, and by Elector of Benton. The special for the best animal of the breed went to Sir Geo. Cooper's bull, Bandolier of Hursley, Mr. Cridlan's cow, Tulip of Standen, being reserve.

Trade Topic.

FRONTIER DAYS' HORSEMANSHIP.

The championship honors for lady riders, to be competed for at the Frontier Days' Exposition, July 8-16, will be keenly contested. A Cheyenne, Wyoming, despatch says that in the broncho-busting competition, Fanny Sperry, who won the championship at the Calgary Stampede last year, has signified her intention of challenging "Prairie Rose" Henderson, who won the world's championship at the "Rodio," Los Angeles, last year. In the relay race, after seven years of retirement, Mrs. W. H. Irwin, winner of the ladies' championship at Cheyenne Frontier Days in 1902 and 1904, will compete against last year's winner. It had not been the intention of Mrs. Irwin to compete again, and it was only the excitement of last year's race that induced her to change her mind. In a recent interview she said: "I'm going to show the youngsters that sometimes a champion can come back," and from appearances at her training camp, the would-be champions will have to show splendid form to enable them to win.

In the broncho-busting, outlaw-horse riding, and in every other feature of this great Exposition, visitors to the Winnipeg Fair will see keen competition, and witness a spectacle to be remembered for a lifetime.

FARMERS! STUDY

THE ENGINE PROBLEM!

Learn how a poor engine eats up profits and goes to pieces in a season

You need an engine. But, remember, it is not the first cost that counts. Investigate the

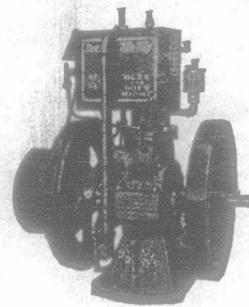
QUALITY AND DURABILITY AND FUEL ECONOMY

OF

The New Way

AIR COOLED ENGINE

The NEW WAY gives you more years of service with less worry and expense than any other engine in the world.



You cannot afford to take chances with a cheap, shoddy engine. Buy the NEW WAY and be a satisfied user of the best, most reliable and most up-to-date Engine made. Write for catalogue. D.C. 12.

The New Way MOTOR COMPANY

OF CANADA, LIMITED, WELLAND, ONT.

"GOES LIKE SIXTY" TRACTOR

With All Latest Improvements The economical, practical tractor for modern farming. Light in weight, strong and powerful, easy to operate. The real one-man tractor for belt or field work.

Special Heavy Duty Tractor Motor - Long stroke type. Large crank shaft, connecting rods and bearings. One-piece cam shaft. The Gilson is the pioneer light-weight tractor and no experiment. Will do any kind of farm work more cheaply than horses.

GET OUR CATALOG FREE

Learn about the new Gilson before you buy a tractor. Write GILSON MFR. CO., 3 York St., Guelph, Canada.



The DAISY Grinder

The greatest labor-saving grinder ever placed on the market. All made of steel. As a foot-power grinder it has no equal for grinding chisels, drill-bits, knives, axes, scuffer and cultivator points, and all kinds of grinding that is required in a shop or on a farm.

For grinding mower or binder knives, it excels any grinder offered to the public. Cut show mower knife in position. Price \$8.50 complete, with two of the best vitrified grinding wheels. Freight paid to your railway station in Ont. and Que.



Mfd. by W. J. MANDLEY, SHELBURNE, ONT.

Cream Wanted

We guarantee highest Toronto prices, full weights and prompt returns. Our 16 years' experience ensures satisfaction. We furnish cream cans and pay express charges. Write:

Toronto Creamery Company, Limited
Toronto, Ontario

MOLASSES FEEDS

For Dairy Stock and Horses

Write for FREE samples to
CHISHOLM MILLING COMPANY
TORONTO

A COLLEGE EDUCATION FOR THE BOY!

If you are a college man you know that your son should have a college training. If you are not you will probably be more positive on that point and with very good reason. The main consideration, however, is not the education itself but the conditions under which it is acquired.

Woodstock College

Offers boys a liberal education under conditions which every right-thinking parent is bound to approve of. Your boy has the choice of Four Courses: Arts Matriculation, Science Matriculation, Business and Teachers. The Manual Training equipment of Woodstock College is admittedly the best in Canada, while Physical Culture is amply provided for by large grounds and campus and fine gymnasium.

Write Principal for Calendar and full particulars.
A. T. MacNeill, B.A.
Woodstock College - - - Woodstock, Ont.

POULTRY AND EGGS

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

SINGLE-COMB Brown Leghorns. The kind that lays, \$1.25 for fifteen. William Barnes & Sons, Living Springs, Ont.

WANTED—Poultry man who thoroughly understands running incubators, dressing and general care of poultry for private place. Must be Protestant and temperate. Married man with not more than two children, one of which is old enough to assist with poultry. House on plant to live in. Apply to Box 436, Cobourg, Ont.

Wanted TO HEAR from owner who has good farm for sale. Send description and price. Northwestern Business Agency, Minneapolis, Minn.

ADVERTISEMENTS

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

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

ALL kinds of farms. Fruit farms a specialty. W. B. Calder, Grimsby, Ont.

HELPFUL literature for Bible students free on application. Secy. International Bible Students' Association, 59 Alloway Ave., Winnipeg.

POSITION or partnership wanted by competent veterinarian. I offer my time and services in the management of a stock farm. Make me a proposition. Address: F. Volkmar, 28 Balmuto Street, Toronto.

When writing mention Advocate



Always the cookbook says:
"Sift Your Flour."

No lumps, you see. Aerates the flour, making it lighter.

Put FIVE ROSES in your sifter.

Never soft and sticky—never lumpy, musty, woolly.

Never coarse.

Milled superfine from Manitoba's grandest wheat.

Fine, granular, very dry.

Nothing remains in the sifter—FIVE ROSES is free, heavy.

And your bread is more porous, more yielding, more appetizing.

And more digestible.

Because the particles are finer, easier to get at by the stomach juices.

Use this very fine flour—superfine.

FIVE ROSES.

12

Five Roses Flour

Not Bleached



Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

Gossip.

D. C. Flatt & Son, Hamilton, Ont., inform us that in the record of their herd which was published under the cut appearing in our issue of June 19th, the thirty-day record of 125.20 lbs. of butter should have read 129.20 lbs. The error was not ours.

THE BELLOWS BROS.' SHORTHORN SALE.

At Maryville, Missouri, June 10th, forty-eight head of Shorthorns from the herd of Bellows Bros., sold by auction, made an average price of \$498. The cattle were of high-class character and breeding, and brought good prices from start to finish, 36 females averaging \$469, and 12 bulls \$567. The highest price paid for a female was \$1,000, for the roan four-year-old, Queen of Beauty 20th, purchased by C. F. Curtis, of Iowa. The highest price for a bull was \$1,095, for the roan yearling, Diamond Emblem, and three other bulls sold for prices ranging from \$610 to \$810.

Recent sales of pure-bred cattle of the dairy breeds show an ever-increasing demand for cattle of improved type, bred on record-producing lines, and capable, by official-record proof, of producing a profitable yield of milk. The prices paid, too, are often such as to make the breeding of high-class dairy cattle most alluring. At the recent Ayrshire sale at Ormstown, Que., the general average was a high one, \$400, \$500, \$600, \$700, and up to \$1,000 was paid for choice animals, although many were sold for much less. These are prices which are not likely to last, and, in common with the sensational prices paid for Shorthorns a few years ago, may soon find a level well within their worth, as Shorthorns are to-day.

Ormstown, Quebec, can rightfully claim the honor of being the home of one of the biggest live-stock shows held in Canada. At the recent show, held on June 18th, 19th and 20th, there were on exhibition 300 Ayrshires, 200 Holsteins, and nearly as many horses, while the sheep and swine pens were well filled, and the poultry show a most attractive one. The Ayrshires and Holsteins were up to a high standard, and certainly no other district in Canada can put up a show of Ayrshires at all comparable to the district of Beauharnois. The Clydesdales, too, were a most excellent lot. The banner prize, that for stallion and four of his get, was won by Dr. McEachran, on his big, high-class quality stallion, Selborne. In the aged stallion class, Sir Spencer, the hero of many a hard-fought contest, was again victorious, with Selborne second. It was a great show, and well managed. Clydesdales were judged by Geo. Hay, of Lachute, Que.; light horses, by Dr. Watson, of Mount Victoria Farm, Hudson Heights, Que.; Ayrshires, by Alex. Hume, Menie, Ont., and Holsteins, by P. J. Sally, of Lachine Rapids, Que. Their work, although extremely difficult in many cases, was well done, and gave universal satisfaction.

EXHIBITION DATES.

International Horse Show, Olympia, London, Eng., June 19 to July 1.
Royal Show, Bristol, Eng., July 1-5.
Canadian Industrial Exhibition, Winnipeg, Man., July 8-16.
Dominion Exhibition, Brandon, Man., July 15-25.
Regina, Sask., July 26 to August 2.
Saskatoon, Sask., August 5-8.
Edmonton, Alta., August 11-16.
Cobourg Annual Horse Show, August 12-16.

Canadian National, Toronto, Ont., August 23 to September 8.
Canada Central, Ottawa, Ont., Sept. 5-13.
Western Fair, London, Ont., Sept. 5-13.

Questions and Answers.

Miscellaneous.

Poultry Questions.

1. Do a mixed flock of hens lay better than just one breed?
2. If you were just keeping one kind, what breed of fowl is best for all purposes?
3. What is the cause of roup, and a remedy for it?
4. What is the best feed for small chicks? Have been feeding mine moistened bread for a few days, and then bread and potatoes mixed with shorts, but quite a few have died.

H. A. R.
Ans.—1. Sometimes. It depends a good deal upon the blend of blood in the mongrel flock, upon whether or not they are badly inbred, and also upon the laying quality of the particular pure-bred, or strain of it, with which they happen to be compared.
2. We keep White Wyandottes, but there are other breeds in the same class just as good, Barred Plymouth Rocks and Rhode Island Reds, for instance.
3. The cause is contagion, contributing causes being dampness, drafts, ill ventilation, and general insanitary conditions. Separate affected birds from well ones, putting the latter, by preference, into clean quarters. Disinfect the premises where roup fowl have been,

and use some good proprietary roup cure in the drinking water as a preventive, also treating with it, according to directions on package, any cases not disposed of outright by killing, which latter course is often advisable in case of all affected birds, when not too numerous.

4. It pays to use the prepared chick foods on sale by feed dealers. A bag goes a long way with young chicks, and, as they become older, whole grain, especially wheat, may be substituted.

Tuberculous Cattle.

1. Is there any compensation paid the owners of cattle killed because they are suffering from tuberculosis?
 2. If so, have they to be destroyed in the presence of a Government official?
- Ontario.
SUBSCRIBER.
Ans.—1 and 2. No. There is no compensation paid by the Federal or Provincial Government for animals slaughtered on account of tuberculosis. Neither Government orders any animals slaughtered on this account.

Swollen Head.

Would you please tell me what to do with my turkey hen? She has a swollen head, and I have lanced it near the nostrils, and a thick, milk-like fluid can be squeezed out. She has been like this for some time. I have given the muriatic acid for black-head, but she gets no better.
A SUBSCRIBER'S WIFE.
Ans.—It is not possible to say definitely what ails the turkey. Probably it is roup. In any case, isolate the bird and disinfect the premises. If she is not an extremely valuable bird, it might be better to kill and burn her than to run the risk of contagion being distributed through the flock. Of course, it may be just a common cold, but by the time this reaches you she should be better if this was the cause of the trouble.

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Buy the
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Grinder

ever placed on the
a foot-power grin-
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kinds of grinding
that is required in a
shop or on a farm.
For grinding mower
or binder knives, it
exels any grinder
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mower knife in po-
sition. Price \$8.50
complete, with two
of the best vitrified
grinding wheels.
Freight paid to
our railway station
Ont. and Que.

ELBURNE, ONT.

FEEDS

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n. Make me a
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n Advocate

"No darning for me *this* trip, Dad.

Notice their style, too. If we stay *six months* we're fixed for hose."



Holeproof Hosiery

FOR MEN, WOMEN AND CHILDREN

So soft and stylish, and can be had in such light weights, that many say, "These hose can't wear." Yet six pairs are guaranteed to wear a full six months.

We pay an average of 74 cents a pound for the yarn in Holeproof. Common yarn costs 32 cents. 74 cents is the top market price for cotton yarn—Egyptian and Sea Island. Ours is 3-ply, long-fibre, fine strands. Pliable and soft, but of the maximum strength. We spend \$60,000 a year for inspection, to see that each pair of Holeproof is perfect.

The above figures refer to Holeproof as made in the States and Canada.

The genuine Holeproof bear this signature: *Carl Frischl*.

Write for Free Book on Holeproof

Holeproof Hosiery Company of Canada, Ltd.
311 Bond Street, LONDON, CANADA (447)

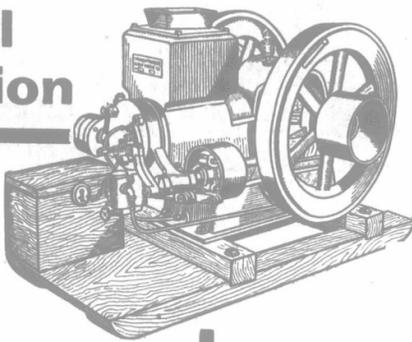
Six pairs of men's cotton Holeproof, \$1.50 to \$3 a box; women's and children's, \$2 to \$3 a box of six pairs; also three pairs for children, guaranteed three months, \$1 a box. Silk Holeproof for men, \$2 a box of three pairs. Women's silk stockings, \$3 a box of three pairs. Three pairs of silk guaranteed three months. Medium cashmere socks, six pairs, \$2; fine cashmere, six pairs, \$3. Women's fine cashmere stockings, six pairs, \$3. Six pairs of cashmere are guaranteed six months.

Genuine Holeproof are sold in your town. Ask for dealers' names. We ship direct where there's no dealer near, charges prepaid, on receipt of price.



Low Fuel Consumption

SO satisfied are we of the low cost of running our engines that we guarantee the lowest possible fuel consumption on gasoline or kerosene.



Barrie Engines

are built in one of the most modernly-equipped engine factories in America. They are neat, simple, strong and reliable. So easy to start and control that a boy or girl can run one. A big, strong company stands behind Barrie Engines and guarantees everything about them.

Write for catalogue showing complete line of air-cooled, hopper-cooled and tank-cooled engines in stationary, portable and semi-portable styles. Also hoisting, pumping and marine engines. Sizes 2 to 400 horse-power.

The Canada
Producer
& Gas Engine
Co., Limited
BARRIE, ONT.

DISTRIBUTORS:

James Rae, Medicine Hat; Canada Machinery Agency, Montreal; H. Wolfendin, Calgary; J. E. Sheriff, Calgdonia, N. S.

Book Review.

"THE FARMER OF TO-MORROW."

There was a time in the United States when land was free, and regarded simply as a means of labor. But free, virgin land, is practically a thing of the past. In the United States, the tax value of the average acre of farm land was \$16.57 in 1900, but in 1910 it had risen to \$32.40, an increase of 118.1 per cent. Land has become capital, and the "back-to-the-land" man does well to reckon with this vital fact. Antiquated methods and management will not do. But the population during the ten years specified grew by 16,000,000, and the value of farm land is directly affected by the number of mouths to be fed by its products. In the circles of agricultural science, a keen controversy has been going on over the hypothesis of the Bureau of Soils at Washington, that the mineral elements of the soil are inexhaustible, and that the soil cannot be destroyed. Antiquated methods and management will not suffice. Fineness of soil grains is held to be more important than chemical composition. Soils get "tired" and need a change of occupation. In applying barn-yard manure, it is not the addition of "plant food" so much as the toxic effect that benefits, and this increases the soil's capacity to hold moisture. These points will give an idea of the readable character of a new work entitled, "The Farmer of To-morrow," by Frederick Irving Anderson, published by The Macmillan Co. of Canada. In regard to the indestructibility of the soil, it favors the position of Wilton Whitney, and the United States Bureau of Soils-Scientists. Copies may be secured through this office at \$1.60, postage paid.

Trade Topics.

CHEAP RATES TO WINNIPEG.

As announced in the advertisement in our last issue, the 1913 Winnipeg Canadian Industrial Exhibition is fixed for the dates July 8th to 16th. See the advertisement, and note the reduced railway rates, by special train, from London, July 8th.

Attention is called to the advertisement in another column of lightning-rods, made by the Universal Lightning-Rod Company, Hespeler, Ont. Lightning destroys many buildings every season, and experience proves that buildings properly rodded are thoroughly protected against this destroyer. If you are contemplating rodding your buildings, see the advertisement and write for descriptive literature.

AN INSURANCE STORY.

To have begun in a place named "Waterloo," was, in itself, an auspicious advent for the Mutual Life Assurance Company of Canada, the story of which is related modestly, but with a literary finish and an attractiveness of "facts and figures" that one does not always look for in the annals of life and mortuary enterprises. The series of photographs of men and buildings from pioneer days in Waterloo County, Ont., down to the present, have been used to good purpose, and help in illustrating the steady and substantial growth of the business which enjoys the distinction of being the "only Canadian legal reserve company organized on the mutual system." Everyone interested in life insurance would appreciate a study of this timely and succinct pamphlet.

The old saying that "To do good work, you must have good tools," is thoroughly believed by the Winchester Repeating Arms Co., and they act in accordance with this belief. Their plant for the manufacture of cartridges and loaded shot-shells is complete, and the most skilful workmen in this line are employed in making the many tests and experiments, and in carrying on the different operations through which all Winchester cartridges and loaded shot-shells pass in process of manufacture. All Winchester cartridges and loaded shot-shells are manufactured in this plant, and thus the invariable standards which have made the Winchester product unrivalled in all the world, are maintained. There are cheaper grades of ammunition, as there are of

all kinds of merchandise, but the shooter who wants the greatest satisfaction from his shooting should not overlook Winchester cartridges or loaded shot-shells. See the advertisement in another column.

Attention is directed to the advertisement of Tower Farm Oxford Down sheep which appears in this issue. This is one of the best flocks of the breed in Canada, many prizes at our large shows having gone to representatives from Tower Farm. A number of extra good shearing rams are offered, also one imported three-year-old ram. Now is the time to select a ram before the good ones are all taken. Ewe and ewe lambs from imported and prizewinning stock, a number of both sexes fitted for the show-ring, make one of the most attractive offerings possible. See the advertisement and phone or write E. Barbour, Erin, Ontario.

Benj. Horton, Chairman, with John Prosser, Managing Director of the "Molassine" Company, of London, England, makers of the well-known "Molassine Meal," have been making a rapid visit through Canada and the United States to secure a better idea of trade conditions in America. Last year's business for "Molassine Meal," through the able management of L. C. Prime Co., Ltd., of St. John, N. B., was far greater than anticipated, and was such as to warrant serious consideration for the quick supplying for the largely-increased requirements of the future. L. C. Prime, General Manager, recently went West for a visit, and made arrangements for supplying the Great West of Canada. This was done chiefly in response to the large number of requests coming from British settlers who had used "Molassine Meal" in the Old Country, and wanted to get it over here. See the advertisement.

In keeping with the policy of the house as originated and developed by the late Geo. H. Pedlar, additions to the force at Oshawa headquarters have recently been made which will further increase the efficiency of an already strong and capable organization. W. R. Gieske, formerly Branch Manager of The Pedlar People, Limited, at Toronto, who has a thorough knowledge of the financial end, will, in his capacity of Managing Director, bring his ample knowledge into good use, which, added to his experience in selling sheet-metal products, as manager of the branch at Toronto, will enable him to gauge the situation correctly as applying to trade conditions in sheet-metal lines. The Operating Department has been strengthened by the addition of W. Loach, who has had a wide and varied mechanical and manufacturing experience in United States and Canada. Several new developments are now under way, which will be of general interest to the trade when particulars are announced. A further addition has just been made in the person of A. T. Enlow, in general charge of sales and advertising. Mr. Enlow is a steel man of large experience, having been connected with the manufacture and sale of steel in the United States for the last twenty years. It is safe to say that the addition of these three experienced men to the already strong and aggressive staff of The Pedlar People, Limited, Oshawa, Ontario, of which W. H. Hall and F. L. Mason have been prominently associated in the development of the great business, as active co-workers with the late Mr. Pedlar, means a continuation of the policy which has kept the firm at the head of sheet-metal-working activities in Canada and abroad.

Gossip.

The dispersion sale of Shorthorn cattle, the property of J. G. Barron, Carberry, Manitoba, on June 11th, was an unqualified success. Buyers were out in numbers from Manitoba, Saskatchewan, and Alberta, and bidding was always brisk. Forty-nine head sold averaged \$206 each; 19 bulls, mostly young, averaged \$166 each, while 30 cows and heifers averaged \$236. The top price for a female was \$410, paid by Wm. Honey, of Binscarth, Man., for Fairview Jubilee Queen, by Topsman's Duke. The highest price for a bull was \$280, paid by Wm. Murdock, Greenway, Man., for Fairview Thistle, a son of Mistletoe Eclipse.

A CONCRETE SILO

Is One of the Best Investments on a Farm

THERE is no question about the advantage of having a silo. In the winter and during dry weather in the summer, it assures the dairyman of an increased milk flow from his cows. Silage also makes excellent feed for steers. Every dairyman and stock-raiser who has a silo will tell you that he would not care to do without it.

The silo here shown is 16 ft. by 35 ft. high. The inside diameter is 15 ft. This will give silage for 182 days for 30 head of cattle. About 20 tons of silage will go in each 5 ft. of vertical height of the silo.

The quantity of cement required to build a silo of this size is approximately 55 barrels. Other material required---about 13 cords of gravel and 1½ cords of small field stone.

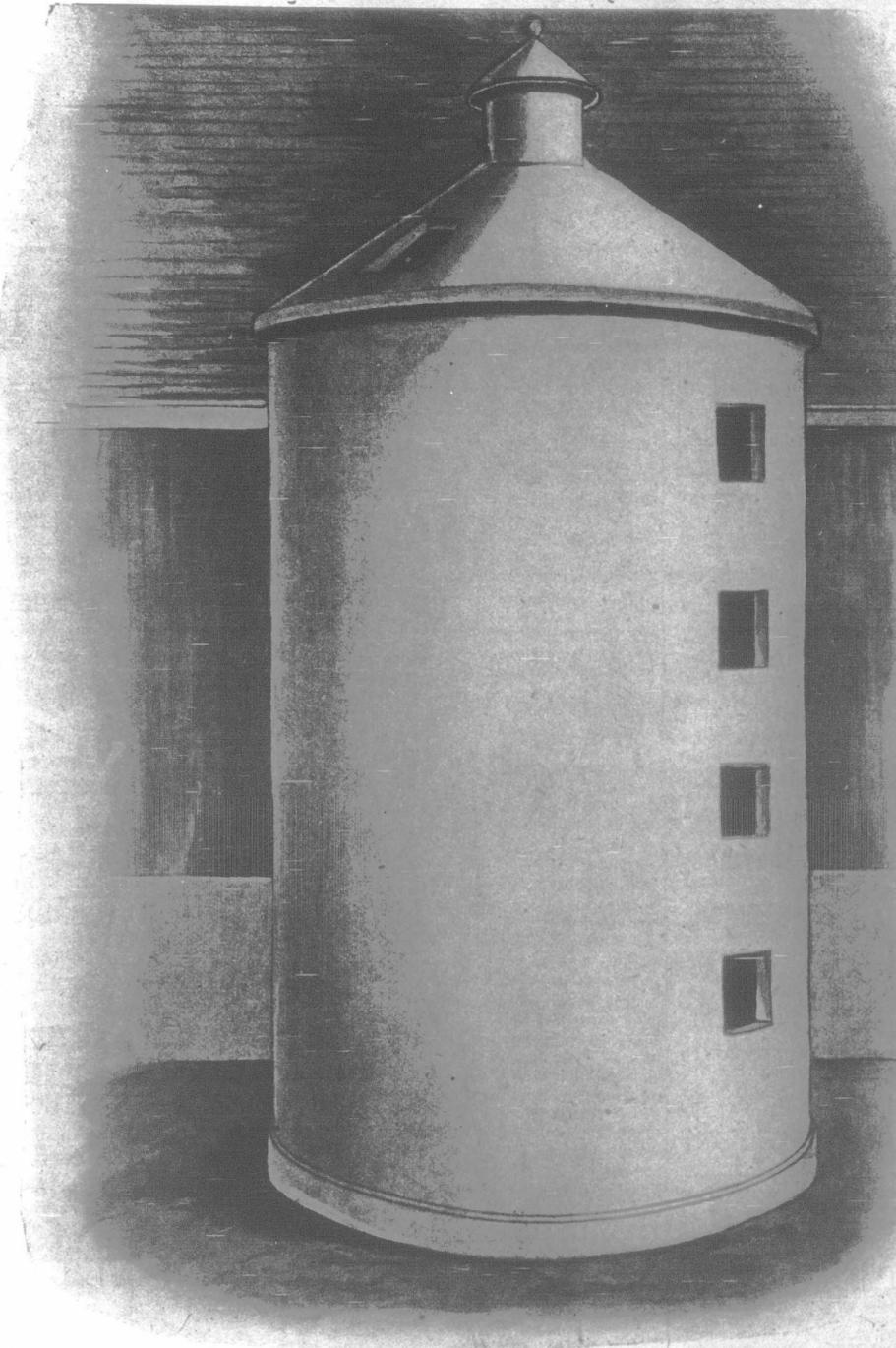
A Few Advantages of Concrete Silos :

Being air-tight, there is no waste with a round cement silo.

A concrete silo prevents all danger of waste from frost.

Concrete silos are permanent. The severe wind-storm of several months ago blew over and damaged quite a number of silos, but concrete silos were not damaged in the least.

There are many other advantages, which are given in our 128-page book, "Portland Cement on the Farm." The regular price of this book is \$1, but you can obtain the same free in connection with our Special Offer, as follows: Send us \$1 for the Rogers Book, and we will mail you with the



book an order for \$1 worth of cement on the nearest Rogers dealer. If there is no Rogers dealer in your vicinity, send us 50c., and we will send you the book by return mail. The information contained in it is worth hundreds of dollars to you.

When building concrete silos or making any improvements in concrete, be sure to buy ROGERS' PORTLAND CEMENT. The man who knows cement will tell you that ROGERS' BRANDS are best.

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CAUSTIC BALSAM.
 A safe, speedy and positive cure. The safest, best BLISTER ever used. Removes all blemishes from horses. Impossible to produce scar or blemish. Send for circulars. Special advice free.
 THE LAWRENCE-WILLIAMS CO., Toronto, Cana.



DR. PAGE'S ENGLISH SPAVIN CURE

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on cattle, and to remove all unnatural enlargements. This preparation, unlike others, acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 York-shire Road, London, E. C. Mailed to any address upon receipt of price \$1.00. Canadian agents:
 J. A. JOHNSTON & CO., Druggists
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 TRADE MARK REG. U.S. PAT. OFF.



will remove them and leave no blemishes. Reduces any puff or swelling. Does not blister or remove the hair, and horse can be worked. \$2 a bottle delivered. Book 6 K free.
 ABSORBINE, JR., the antiseptic liniment for man-kind. For Boils, Bruises, Old Sores, Swellings, Varicose Veins, Varicostes, Ailays Pain. Price \$1 and \$2 a bottle at druggists or delivered. Will tell more if you write.
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Any kind of **VETERINARY DRUGS**
 If you need any, write at once, when we will quote very low and reasonable prices. Consultation by letter FREE of charge, with our diplomaed veterinary doctor. For any diseases, write and consult him now.
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NOTICE TO HORSE IMPORTERS GERALD POWELL, Commission Agent and Interpreter, Nogent Le Retrou, France,

Will meet importers at any port in France or Belgium and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references. Correspondence solicited. P.S. Nogent is in the heart of the Perche horse district.

Notice to Importers C. CHABOUDEZ & SON 205 rue La Fayette, PARIS, FRANCE.

If you want to buy Percheron Horses and Mares, I will save you time and money and all trouble with papers and shipment. Will meet importers at any landing port. I am acquainted with all breeders and farmers. 30 years experience. Best reference. Correspondence solicited.

MESSRS. HICKMAN & SCRUBY Court Lodge, Egerton, Kent, England Exporters of Pedigree live stock of all descriptions.

Illustrated catalogues and highest references on application. We are doing a very large business in draft horses of all breeds, but especially Percherons, and we are offering unsurpassed values. All over the world there is a shortage of wool and mutton, sheep will go higher, and we solicit orders for show flocks. Our prices on big bunches of field sheep will surprise you.

Shires and Shorthorns

In Shire stallions and fillies, from the best studs in England, we are offering some rare animals at rare prices. Scotch Shorthorns of either sex or age, of highest breeding and quality. John Gardhouse & Son, Highfield, Ont. L.-D. Phone.

Gossip.

B. H. Bull & Son, the widely-known importers and breeders of Jersey cattle, Brampton, Ont., write that they are more than pleased with their stock bull, Viola's Bright Prince, purchased on the Island of Jersey over a year ago. The best of the two-year-olds and three-year-olds on the Island are said to be his get. Some United States breeders state that they believe this family to be superior to any other tribe of the Plum Tree Golden Fern's Lad. A daughter of this bull topped the heifers' best sale in Kentucky, and six of his daughters imported by another noted American breeder, are believed by him to be the best six daughters of any bull to be imported this year. The Brampton firm have for sale many young bulls rich in the blood of Viola's Bright Prince, and a few young calves by him. About thirty young imported bulls, almost fit for service, are offered, and anything desired in females. See the advertisement elsewhere in this issue.

SPLENDID PRIZE LIST FOR OTTAWA'S 1913 FAIR.

The prize list for the Central Canada Exhibition of 1913, which is now being distributed, is an attractive and interesting booklet. The Ottawa Fair dates are from September 5th to 13th, affording six full days and six full nights of complete programme. Exhibitors are advised that entries close August 29th. A new and special entry form for live stock, calling for various details of information, is sent out in order to expedite the compiling of the catalogue of exhibits before the Fair opens.

The big feature of the 1913 Fair, in Ottawa, so far as farmers are concerned, is the Free Freight proposition. The exact conditions are set out thus: "Freight charges (not express) on exhibits of live stock, from points in Ontario and Quebec, will be refunded to the exhibitor by the Exhibition Association. This arrangement covers charges from last shipping point to Ottawa. The regular one-way rate must be prepaid by the exhibitor, and refund will be made by the Secretary upon production of the original bill of lading. Exhibits remaining intact will be returned free to original shipping point."

Upwards of \$20,000 in prize money is provided for. The classification has been carefully revised with changes made to meet the wishes of exhibitors. A class of aged Percherons was added in the horse department with \$105 prizes. The sum of \$100 was transferred to the Agricultural class of horses. Three new prizes were established for grade dairy cattle. An addition of \$250 appears in the poultry premiums, all the 2nd prizes being raised from \$1 to \$1.50; and third, from 50 to 75 cents. There are several other changes.

Persons interested may obtain copies of the prize list by writing E. McMahon, Manager, 26 Sparks street, Ottawa.

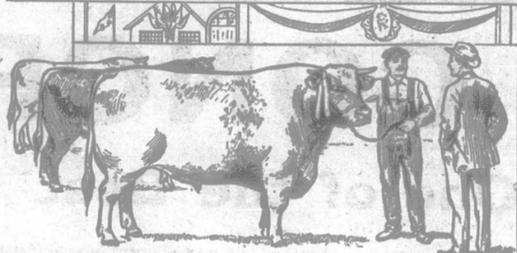
Work-Horse Parade Figures.

The statistics of the recent work-horse parade in Boston disclose some interesting facts. There were 1,231 entries, and of these only 89 failed to appear, a much smaller percentage of absentees than is usual. There were 1,516 horses actually present. In the Boston parade every entry that deserves a ribbon receives one, and the ribbons were awarded as follows: First (blue), 765; second (red), 235; third (yellow), 51.

No horse that was lame, thin, or badly groomed, received a ribbon, but the number thus disqualified was astonishingly small, being as follows: Seventeen for lameness, 16 for being thin, 6 for being badly groomed. These results show how much the horses in Boston have improved in quality and condition since the first annual parade ten years ago.

Owners of horses everywhere might, by a little encouragement, by awakening the pride of their drivers, and perhaps by offering them occasional slight rewards, greatly improve the condition and treatment of their horses, and save thousands of dollars a year in the wear and tear of horseflesh.

Bring Home the Ribbons and Get the Money



BY USING THE BEST STOCK CONDITIONER Caldwell's Molasses Meal

History repeats itself. Go over the lists of prizewinners at our recent fairs, and you'll find that a surprising number, were conditioned on Caldwell's Molasses Meal. An examination of "high-priced" records would point to the same thing.
 What are the reasons behind these facts? Simply these: Caldwell's Molasses Meal has proven itself to be the best stock conditioner on the market, as well as the most economical in actual use. Ask your feedman! Or write us direct for proofs.
The Caldwell Feed Co., Limited, Dundas, Ont.

Buy from the factory

Save the Agent's profit
 When it comes to fitting up the dairy stable you can save money by getting in touch with DILLON'S. Dealing direct by mail with the factory cuts out the middlemen's and agents' profits. You can buy your stall equipment and staunchions at mighty interesting prices—as low, in fact, as the largest agent would have to pay—and the best quality goods at that.
DILLON'S STALLS and STAUNCHIONS
 Write for information and prices before you place your order for equipment.
R. DILLON & SON OSHAWA
 We also make Hay Tools, Litter Carriers, Barn Door Hardware

STEEL RAILS NEW AND SECOND-HAND
 Cut to specification for any purpose
JOHN J. GARTSHORE
 58 West Front St. Toronto, Ont.

Mount Victoria Clydes & Hackneys When in want of a high-class Clydesdale stallion or filly, or something that has won and can win again in Hackney stallions or fillies, visit our barns at Hudson Heights, Que.
T. B. MACAULAY, Proprietor
 E. WATSON, Manager, Hudson Heights, Que.

CLYDESDALES, PONIES, BULLS Imported 3 year old Clyde fillies 2 mares 4 years old, in foal. 3 ponies broken to ride and drive, safe and quiet for women and children. Bulls consist of 4, from 12 to 15 months old. All this stock is for sale at reasonable prices. Myrtle C. F. R. and G. T. R. 88 miles East of Toronto.
JOHN MILLER, Jr. Ashburn.
 (Blairgowrie Farm)

IMPORTED CLYDESDALES.
 A few choice young stallions always on hand and for sale. Frequent importations maintain a high standard. Prices and terms to suit.
BARBER BROS., Gatineau Pt., Que., near Ottawa.

CHOICE CLYDESDALE STALLIONS AND MARES
 Both imported and Canadian bred always on hand at **SMITH & RICHARDSON, Columbus, Ont.** Phone Connections: Stations, Myrtle C.P.R., Oshawa C.N.R., Brooklin G.T.R.

Prize-winning Clydesdales, Imported Stallions and Fillies. Our record one or more winners in every class. We have new prize-winning Stallions and Fillies with breeding and quality unsurpassed—All are for sale.
JOHN A. BOAG & SON, QUEENSVILLE, ONT.

Clydesdales for Sale My first importation for 1913 landed in March. One dozen fillies of the highest standard will be offered at rock-bottom prices during June and July. Write for particulars and prices of phone.
G. A. BRODIE NEWMARKET, ONT.

ORMSBY GRANGE STOCK FARM, ORMSTOWN, P. QUE.
CLYDESDALES Imported and Canadian bred of large size, good colours, and the best of pedigrees always on hand. Pure-bred Jersey cattle of the choicest breeding, and Rhode Island Red Poultry of an excellent egg-producing strain. If you want a good start in such stock at lowest prices write me—
D. McEACHRAN.

The Auld Herd AND PLEASANT VALLEY Shorthorns We have females of all ages and of the best Scotch families for sale. Those interested should come and see us. Correspondence invited.
BELL PHONE. Guelph or Rockwood Stations. A. F. & G. Auld, Eden Mills, Ont.

Willow Bank Stock Farm—Shorthorn Herd, Established 1855. The Grand imported Butterfly bull, exceedingly good lot of young bulls on hand, fit for service and at very reasonable prices. Some from imp. dams.
JAMES DOUGLAS, Caledonia, Ont.

MEADOW LAWN SHORTHORNS OF RICHEST AND MOST FASHION-ABLE SCOTCH BREEDING, and of high-class type and condition. I can supply young bulls and heifers—Clarets, Roan Ladys, Mildreds, Stamfords, etc. L.-D.-Phone
F. W. EWING, R. R. No. 1, ELORA, ONTARIO.

DAIRY-BRED SHORTHORNS
 We have for sale, Scotch- and English-bred Shorthorns. A few bulls of improved breeding on big milking lines; also other pure Scotch and heifers of both breed lines.
L.-D. Phone G. E. MORDEN & SON, OAKVILLE, ONTARIO.

SUGAR AS YOU LIKE IT

FINE Grain Sugar

To have every grain alike, size of dots at left, each one choice extra Granulated White pure cane sugar, get the St. Lawrence in bags, with red tag—100 lbs., 25 lbs., 20 lbs.

MEDIUM Grain

In the bags of St. Lawrence "Medium Grain"—blue tags—every grain is choicest granulated sugar, about size of a seed pearl, every one pure cane sugar.

COARSE Grain

Many people prefer the coarser grain. The St. Lawrence Green Tag assures every grain a distinct crystal, each about the size of a small diamond, and almost as bright, but quickly melted into pure sweetness.

Your grocer's wholesaler has the exact style you want—grain, quality and quantity all guaranteed by

St. Lawrence Sugar Refineries Limited, Montreal.



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Students assisted to positions. College in session from Sept. 2nd. Catalogue free. Enter any time.

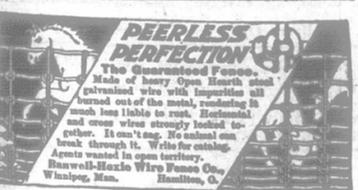
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17 Vice-Principal

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Perhaps a few suggestions would help you in running your Dairy. We have installed most of the largest plants in Canada and our long experience in this line is at your service. Write for our book, "Dairy Help Suggestions" to-day. It's free.

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Max Stolpe, Landscape Architect—Artistic plans, sketches furnished for all kinds of landscape construction work. Ornamental Trees, Shrubs, Conifers, Hardy Perennials, etc. Ask for price list. 17 Main St. East, Hamilton, Ont. Phone 148.

DR. BELL'S Veterinary Medical Wonder. 10,000 \$1.00 bottles FREE to horsemen who will give The Wonder a fair trial. Guaranteed to cure Inflammation, Colic, Coughs, Colds, Distemper, Fevers, etc. Agents wanted. DR. BELL, V.S., Kingston, Ont.

Questions and Answers. Miscellaneous.

Selling Rented Farms.

I rented a farm for a term of years, and since the time I rented it the landlord has sold some of the land without consulting me. Has he the privilege of doing so without my consent?

J. C. T.

Ans.—He could sell it only subject to the terms of the lease.

Address Wanted.

Please give the name and address of the Government official from whom a license or permit can be obtained to start a fox farm.

GREENHORN.

Ans.—We are aware of no statute or regulation governing fox farms, and the Law Clerk of the Attorney-General's Department assures us that there is certainly none in this Province. A license is not required any more than a license to raise cattle or grow wheat.

Diseased Raspberry Buds.

I have a tame raspberry bush about four feet high. The outside leaves seem to be curling up and dying. I have examined it, and find no bug or worm eating it. Would be much obliged if you would tell me the cause, and what to do for it.

M. A. H.

Ans.—There are many diseases which might cause the leaves to curl and wilt. We are inclined to think that perhaps the bush has crown gall. Dig down at the root and see if there are several irregular swellings present. If so, dig the plant out and burn it. It may be that the raspberry root borer or the cane borer is causing the trouble. The former insect is found working in the root, and the latter in the pith of the canes. Examination would reveal them. Then there is a disease called leaf-curl, which, as its name implies, causes the leaves to curl up, and, while they may remain green all season, a very poor growth is made. This disease spreads slowly, but new plants placed where an affected one has been removed, generally become affected. Berries are a dull color, small, and often bitter on bushes attacked by this disease. If you cannot satisfy yourself as to the disease, send a specimen to the Horticultural Department, O. A. C., Guelph, Ont.

Permanent Pasture.

We have a paddock, about six acres, which we keep specially for our work horses. It has not been plowed for ten years, and now grows a very poor quality of grass, which is not at all relished by the horses. We require all, or nearly all, our manure for other land.

1. What would be the best way to renovate it?
2. What would be a good mixture of grass seed to use for a permanent pasture? The soil is loamy.

W. B. P.

Ans.—1 and 2. The pasture might be improved by sowing more grass seed over the old sod in the fall or early spring, but doubtless best results would be obtained by breaking the land up and re-seeding. Old pastures which get full of wild grass, seem to run out and require breaking. It is not likely that the land is in poor condition, as the manure from the stock would likely keep up fertility. It might be worked as a summer-fallow for a season to rot the sod, or a hoed crop might be put on it. As soon as the sod is rotted, and the land is in good tilth, it could be re-seeded. It might be advisable to let it grow a crop of clover before re-seeding to grass, as this would help loosen it up. Another good crop, which could be used on the newly-plowed sod, and one which generally leaves land in good condition, is peas. In fact, peas and oats might be sown thickly on it, and cut for hay or green feed. A good, permanent pasture is composed of alfalfa, 5 lbs.; alsike clover, 2 lbs.; white clover, 2 lbs.; meadow fescue, 4 lbs.; orchard grass, 4 lbs.; tall oat grass, 3 lbs.; meadow foxtail, 2 lbs.; and timothy, 2 lbs.; 24 pounds per acre. This is rather an expensive seeding, but produces a great mat of permanent pasture. If the land will not produce alfalfa it may be omitted from the seeding.

WINCHESTER



"Leader" and "Repeater" LOADED SHOTGUN SHELLS

If you, like many Canadian sportsmen, prefer American shotgun shells, when buying be sure to get the kind which are made in America, and not shells bearing an American name and label, but which are not loaded there. All Winchester loaded shells are made at the works of the Winchester Repeating Arms Co., New Haven, Conn., U. S. A., under the same skillful management and by the same up-to-date and careful system of manufacture which have made Winchester rifles the best and most generally used sporting arms in the world. Winchester—the W brand—of loaded shells may cost a few cents more over the counter, but any difference in price is more than made up by their superior quality and general dependability. They are



W

AMERICA'S BEST—USED AND SOLD EVERYWHERE

SHORTHORNS

One high class imported 13-months bull calf; one junior yearling show bull; one promising 11-months bull calf; one 14-months farmer's bull. Some bargains in heifers and young cows, including a few imported heifers.

MITCHELL BROS., Burlington, Ont. Farm 1/2 mile from Burlington Junction

SHORTHORNS AND CLYDESDALES

5 bulls from 8 to 15 months—3 roans and 2 reds. Females of all ages. 11 imported mares—4 with foals by their side, 5 three-year-olds, and 2 two-year-olds; all of the choicest breeding. Catalogue of Clydesdales mailed on application. BELL PHONE BURLINGTON JCT. STA. W. G. Pettit & Sons, Freeman, Ont.

I STILL HAVE FOUR YOUNG BULLS FOR SALE AND MORE COMING ON

Several heifers that are bred right and that will make great cows; some of them in calf now to my great breeding sire, Superb Sultan—75413—perhaps the greatest son of the great Whitehall Sultan—55049—that was imported by me and used so long in Mr. Harding's herd. I sell nothing but high-class cattle, but the price is within the reach of all. A few Clydesdales, Shropshires and Cotswolds always on offer. Local and Long Distance Telephone.

ROBERT MILLER, STOUFFVILLE, ONT.

5 Shorthorn Bulls 5—We have for sale at moderate prices 5 Scotch Shorthorn bulls, including one of our hand bulls. Also a number of high-class heifers and heifer calves.

A. J. HOWDEN & CO., COLUMBUS, ONT. Myrtle G. T. R. & C. P. R. Long-distance phone

SHORTHORNS—Records show that cattle bought from the Salem herd won numerous ribbons the past season; we have others. Several young bulls are priced reasonably. J. A. WATT, SALEM, ONT.

ELORA, G.T.R. and C.P.R.

Springhurst Shorthorns Four of the first-prize Shorthorns at the late Guelph Show, including the champion and grand champion fat heifer, were all sired by bulls of my breeding. I have now for sale ten young hand headers of this champion-producing breeding. HARRY SMITH, HAY P.O., ONT. Exeter Station. Long-distance Telephone.

5 YOUNG BULLS My present offering consists of 5 bulls for service, 10 females, cows in calf and heifers, 1 show yearling Clyde Silly and 1 Silly foal good enough to show any place. Prices very moderate. Clarendon Station, C. P. R. Pickering Station, G. T. R. JOHN MILLER, Brougham, Ont.

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Any person, however inexperienced, can readily cure either disease with Fleming's

Fistula and Poll Evil Cure—even bad old cases that skilled doctors have abandoned. Easy and simple, no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days leaving the horse sound and smooth. All particulars given in

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Write us for a free copy. Fifty-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ont.

Aberdeen-Angus of Show Form and Quality. For this season my offering in young bulls and heifers, are toppers, every one. Show-ring form and quality and bred from show-winners. **T. B. BROAD-FOOT,** Fergus, Ont., G.T.R. and C.P.R.

Oakland—50 Shorthorns

Present offering. **Red Baron—81845—**, He is a fine massive bull, of a capital milking strain, 3-year-old, our own breeding and all right. Also one good red two-year-old and one sixteen months. All of the Dual-purpose strain and can be bought worth the price. Write, or better still, come and see them. **John Elder & Son,** Hensall, Ont.

Spring Valley Shorthorns

A few of the best young bull prospects we ever had. They will please you. Will sell females too. Visit the herd; we think we can suit you. Particulars on application.

KYLE BROS. - RR. No. 1, Drumbo, Ont.

Shorthorns, Cotswolds, Berkshires

In Shorthorns, am offering a number of cows and young calves. In Cotswolds, have a lot of extra good lambs coming on for fall trade. Nothing to offer at present in Berkshires.

CHAS. E. BONNYCASTLE
P.O. and Station, Campbellford, Ontario

The Manor Shorthorns

No bulls, except calves, for sale. Have ten of those, from 7 months to a few days. Also heifers got by, and cows in calf to, one of the good bulls of the breed. Inspection solicited.

J. T. GIBSON, --- Denfield, Ont.

SHORTHORNS!

Bulls of useful age all sold. Would appreciate your enquiry for females. Catalogue and list of young animals.

M. Gargill & Son, Gargill, Ont.

Spruce Lodge Shorthorns & Leicesters

Present offering: Young bulls and heifers from grand milking dams. Also a choice lot of Leicester rams and ewe lambs, and ewes of all ages bred to imp. rams. **W. A. Douglas,** Tuscarora, Ont.

CEDARDALE SHORTHORNS

All bulls sold out some time ago, but have still several fine heifers and good cows for sale of rare value, Scotch-bred and of good individual type. Heifers in calf and being bred to our superior stock bull. **DR. T. S. SPROULE,** Markdale, Ont.

Clover Dell Shorthorns—Bargains in both sexes, especially the yearling bull **Humber Mac—87668—**, Ivanhoe (imp.) at head of herd.

L. A. WAKELY, Bolton, Ont.



PURE-BRED REGISTERED Holstein Cattle

The most profitable dairy breed, greatest in size, milk, butter-fat and in vitality. Send for

FREE illustrated descriptive booklets. **HOLSTEIN - FRIESIAN ASSOCIATION,** F. L. Houghton, Sec., Box 127, Battleboro, Vt.

The Maples HOLSTEIN Herd

Headed by Prince Aggie Mechthilde. For sale at present: Choice bull calves, from Record of Merit dams with records up to 20-lbs. butter in 7 days. All sired by our own herd bull. Prices reasonable.

WALBURN RIVERS, FOLDENS, ONT.

Maple Hill HOLSTEIN-FRIESIANS—Special offering: My junior herd bull, **Choice** Canary, son of Nannet Topsy Clothilde, 30.23 lbs.; also choice bull calves. **G. W. CLEMONS,** R. R. No. 2, St. George, Ont.

Glenwood Stock Farm 2 YEARLING BULLS FOR SALE, out of big milking strains; at low figure for quick sale. **THOS. B. CARLAW & SON, WARKWORTH, ONT.** Campbellford Station.

IF YOU WANT BEST RESULTS Advertise in the Advocate

Questions and Answers.

Miscellaneous.

Stinkweed.

What is the enclosed plant? O. L.

Ans.—The weed is stinkweed, or penny cress. See answer to J. J. R., in our issue of June 12th, page 1091.

Mare Fails To Breed.

Have a Clyde mare three years old which was bred last year and failed to conceive. She was served to the horse four times, and this year she has been served twice. Had an experienced horseman insert his hand, and found what he supposed to be a piece of fat over neck of womb. Will this prevent her from becoming pregnant? Can anything be done to remove it? D. McD.

Ans.—It is altogether likely that the os, or opening to the womb, is closed. It may be caused by a growth, or by contraction. What the operator felt is likely a tumor of some kind. The neck of the womb must be open before conception can take place. Have your veterinarian examine her, and if the neck is simply constricted, he will be able to open it.

Veterinary.

Blistering Colt.

Yours re lumps on colt to hand. The colt is a sucker and cannot be tied, but I could shut it up while the blister is on. I want to treat at once, as the lumps are hard. B. R. T.

Ans.—We were quite aware that the colt was a sucker, and that is why we advised waiting until fall before treating, as it could then be tied. If you can devise some means of keeping it from biting and licking the parts until the oil is applied, it will be all right to treat now. V.

Heavy Breathing.

Yearling heifer is in good condition, but when she runs she acts like a horse with heaves. Seems as if she could not breathe deep enough. Would it be wise to keep her for a breeder, or sell her to the butcher? A. M.

Ans.—The symptoms indicate pulmonary tuberculosis, but there is no means of diagnosing except the tuberculin test by a veterinarian. If she be tubercular, it is doubtful whether the flesh would be fit for use. In any case, I would not advise keeping her for a breeder. V.

Swollen Tendons and Knuckling.

Two-year-old colt became stiff on one leg and then on the other. The cords are swollen, and the fetlock joints are swollen and knuckled. H. S.

Ans.—Get a blister made of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off swollen tendons and joints. Tie so that he cannot bite or lick the parts. Rub well with the blister once daily for two days, and on the third day apply sweet oil. Turn loose now in a box stall and oil every day until the scales come off, then tie up and blister again as at first, and after this blister once every month as long as necessary. Keep as quiet as possible. V.

Indigestion.

Mare nursing colt has not been well for a month. I feed her two quarts of boiled oats three times daily, and also give her powders given by a veterinarian who has seen her. I have had three veterinarians in attendance. She has been given aloes and oil and powders, but does not seem much better. She eats well, but gasses seem to form in her stomach. T. E. McM.

Ans.—The veterinarians in attendance doubtless are treating the case properly, and having seen the patient are in a much better position to diagnose and treat than I. I would suggest, in addition to what is being done, to give rolled oats and bran instead of boiled oats, and to add to her drinking water one-quarter of its bulk of lime water. I would also suggest that you consult your veterinarian before making the change, as it may not be wise to do so. V.

Ontario Wind Engine & Pump Company's LINES ARE SUPREME



Safety

Why does the squirrel take to the oak instead of the sycamore when climbing for protection? Because it means safety, whereas the sycamore means accident.

Why does the experienced man choose the O.W.E. & P. Co.'s Engines, Windmills, Pumps, Scales, Grinders, Tanks, Troughs, Water Basins, Wood Saws and Well Drills? Because they mean guaranteed satisfaction and safety, whereas others spell disappointment and loss.

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Are strong, rigid, clean and sanitary. Will last a lifetime. Never rust, never leak, and are frost-proof. Infinitely superior to wooden troughs, which rot, become slimy, and are disease breeders. "TWEED" Steel Troughs are provided with an outlet for drainage.

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For Particulars, Write Us

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Herd headed by Count Hengerveld Fayne De-Kol, by Pieterje Hengerveld's Count De-Kol out of Grace Fayne 2nd. He has 12 daughters already in the Record of Merit, and many more to follow. Junior sire,—Dutchland Colantha Sir Mona, by Colantha Johanna Lad out of Mona Pauline de Kol (27.18 butter) the dam of one daughter over 30-lbs. and one over 27-lbs. also the dam of the World's champion junior three-year-old for milk production. A few bull calves for sale.

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Do you realize that you must have another servicable bull soon? Better go down to Hamilton right away and see those well-bred fellows with high official backing, that you can buy well worth the money from

D. C. FLATT & SON, R. R. No. 2, Hamilton, Ont. 'phone 2471.

Holsteins Fine 2- and 3-years heifers, bred; also a few YORKSHIRE PIGS, ready to wean.
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For sale: A few choice young bull calves and females, all ages; good enough for foundation stock

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Woodbine Holsteins Young bulls and bull calves for sale, sired by King Segis Pontiac Lad, a combination of all the greatest sires in the world, and Duke Beauty Pieterje, a grandson of Beauty Pieterje, the only cow in the world which is a 30-lb. cow, and has produced a 30-lb. daughter with a 30-lb. daughter.
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Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came. Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Orb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it over fails. Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ont.

HARAB FERTILIZERS

Make worn-out soils yield bumper crops.

Write us for prices of RICE'S SALT

It goes further, and is most economical brand of Canadian or foreign salt you can use. North American Chemical Co., Ltd. Clinton, Ontario

High-class Ayrshires—If you are wanting a richly-bred young bull out of a 50-lb.-a-day and over cow, imported or Canadian-bred dam or sire, write me. Prices are easy. D. A. MACFARLANE, Kelso, Que.

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DON JERSEY HERD Offers young bulls and heifers for sale; heifers bred to Eminent Royal Fern. D. DUNCAN, DON, ONTARIO. Phone L.-D. Agincourt, Duncan Stn., C. N. R.

When Writing Mention Advocate

Questions and Answers. Miscellaneous.

Chickens Die.

I have had over forty chickens die in less than one week with something I believe to be contagious. They would eat, and then stand around with their eyes closed, and before they died their eyes would not open at all. They set their heads back on their shoulders and stand till they drop dead. They were three or four days sick like that before they died. They did not have diarrhea, and I fed them bread crumbs and whole wheat and shorts moistened. Some of them were four weeks, and some three weeks old. I gave them a proprietary liniment in their drink, but it did not do any good, as they all died. I should be much pleased to know what the trouble was, and how to treat it. B. M.

Ans.—The symptoms given would lead us to believe that the chicks are affected with lice. If so, about the best treatment we have found is as follows: Mix one part 90-per-cent. carbolic acid with three parts gasoline, each by measure. To this, add enough plaster of Paris to dry it off after mixing well. Dust the birds well, but if chicks are very small, be very careful in using this mixture, as it is very strong. A. C. McCULLOCH.

Ants and Aphids.

How can I kill small, black ants, which are destroying a Virginia Creeper? SUBSCRIBER.

Ans.—The ants which you find running up and down your Virginia Creeper are not in any way injurious to it, but they indicate the presence of aphides, or plant lice, which are very injurious because of their sucking the juices of the plant upon which they live.

This is one of the interesting cases in natural history where one insect makes use of another without destroying it. The aphides secrete a honey dew upon which the ants feed; in fact, ants treat them much like cows, inducing them to give off this sweet secretion by stroking the aphid's back with their antennae.

The aphids may be destroyed by spraying them with some caustic wash, such as strong soap suds or tobacco water. Attempting to kill them with Paris green, as is often tried, is useless, as they insert their beaks and suck the juice of the plant without getting any of the poison, but the caustic nature of strong soap suds or tobacco water acting upon their soft bodies soon destroys them. It is necessary, therefore, in fighting insects of this kind to spray so that every insect is touched. H. L. HUTT.

Tetanus.

We have a fine young mare which has some trouble our veterinarian calls lock-jaw. We had not been working her for a few days, and on Monday morning, June 9th, I went down to the pasture to get her to go to work and she appeared quite stupid, and if I would give the least pull on the halter she would turn her eyes back so you could not see the ball at all. We have been keeping her quiet in a dark stall. She is not able to chew hay very well, but she will take plenty of mash made of bran, chopped oats, and oil cake. She looks quite smart now, but the least excitement will make her turn her eyes back in her head. Do you think she will ever get better? Our veterinarian thinks she will. If it were not for her eyes, you would think she might go to work. The medicine we have been using costs us \$4 per day; \$2 night and morning. It is called anti-tetanic serum. Do you know anything of it, or have you ever tried it? M. R.

Ans.—The contracted condition of the muscles of the eye is a good proof of your veterinarian's correctness in diagnosing the disease. From the description given, the disease did not develop its acute form, being a mild or sub-acute attack, and for this reason it is quite probable the mare will get well in time. The use of anti-tetanic serum is the proper procedure, as dosing the animal with medicine often does more harm than good. Keep the mare quiet, and under no circumstances excite her until the attack has fully passed.

HEADQUARTERS

IN CANADA FOR

Dairy Supplies.

We carry a very complete line of supplies for both large and small dairies, including churns, butter workers, butter printers, Babcock testers, milk cans, milk hods, Crescent washing powder, etc. We are exclusive Canadian distributors of the famous De Laval Cream Separators. Be sure to get our Dairy Supply Catalog and prices if in need of dairy supplies.

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As in our dairy supply line, so with our farm machinery and supplies, we carry only lines that are known to be absolutely reliable. If in need of a gas engine, ensilage cutter, stanchions, cow drinking bowls, or any kind of farm equipment, be sure to get our catalog and prices before making a purchase. If you contemplate the erection of a silo send for our 48-page illustrated silo catalog.

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We are the sole Canadian distributors of the World's Standard De Laval "Alpha" Power Cream Separators, also for Wizard Agitators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Challenge Butter Printers, and our line of creamery supplies and fittings is most complete. Our 142-p. illustrated catalog gives full specifications and particulars.

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The recently perfected De Laval Milk Clarifier should be installed in every milk plant. We carry a full line of pasteurizers, milk vats and other milk plant supplies.

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Why not install a De Laval Whey Separator before spring and make whey butter? A De Laval Whey Separator will soon pay for itself. A full complement of vats, presses, curd mills, milk pumps, etc., at your disposal. Be sure to get our catalog and prices.

We have every facility for rendering prompt and satisfactory service to all engaged in any phase of the dairy industry. We aim to carry only apparatus and supplies of the highest grade, and our lines are most complete.

Whatever your requirements may be, we can supply them with promptness and dispatch. Just drop us a line stating what you need and catalogs, full information and prices will be mailed to you forthwith.

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BRAMPTON JERSEYS

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City View Herd of Record of Performance AYRSHIRES

One two-year-old, one yearling, one calf, males only, for sale, from R. O. P. cows, and sired by bulls from R. O. P. dams. Eggs from R. C. and S. C. R. I. Reds, 75 cents per 15 after June 15.

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Of choicest imported stock and with imp. sires and dams. I am offering young cows, 3, 4, and 5 years of age; a grand bunch of imp. yearling heifers, and a particularly good pair of young bulls. L.-D. Phone. HECTOR GORDON, Howick, Que.

75 Hillcrest Ayrshires

Our Ayrshires are selected and bred for big production, and show-ring quality. Many of the heifers we are offering are grand-daughters of the two Ex-World's Champions, Yess Armour, Rec. 20190 lbs., and Primrose of Tanglewyld, Rec. 16195 lbs. F. H. HARRIS, Mount Hope P.O. & Stn.

Ayrshires and Yorkshires

Bulls for service, of different ages; females all ages. Calves of both sexes. All bred for production and type. A few pigs of other size ready to ship. ALEX HUME & CO., MONTREAL, ONT.

To Kill Lice and Mites
 on birds and in the house, use
PRATT'S POWDERED LICE KILLER
 25c and 50c per package
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 25c quart; \$1 gallon
 Each the best of its kind
 "Your money back if it fails"
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 Toronto, Ontario.

Alloway Lodge Stock Farm
ABERDEEN-ANGUS CATTLE
SOUTHDOWN SHEEP
 Now is the time to select your sire for use this fall.
 The first choice is guaranteed to those ordering
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Oxford Down Sheep, Shorthorn Cat-
 tle, Yorkshire
 Hogs—Present offering: Lambs of either sex. For
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 Buena Vista Farm, Harriston, Ont.

Tower Farm Oxford Downs—16 shearing
 rams, (1 imported) 3-year-old
 ram, ewes, rams and ewe lambs; all from imported
 and prizewinning stock. A quantity fitted for show.
E. Harbour, Erin P. O. and Stn. L.-D. 'phone

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Agents wanted
 in every town
 and district.
 Shipments made
 from
Galt, Ont.
 and
Winnipeg, Man.
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CANADIAN HOG MOTOR CO., LTD.
 Winnipeg, Manitoba

Maple Grove Yorkshires
 We now offer a few good young sows sired by S. B.
 Jack (Imp.) 28515, breeding age. We have also a large
 number of March and April pigs out of such sires
 as Oak Lodge Julius, S. H. Jack & M. G. Chester
 6th. Pairs not related. We have farmers' pigs
 at farmers' prices and can handle orders large or
 small. S. H. Jack (Imp.) 28515, champion boar for
 three successive years at Toronto, our main sire.
 S. H. Romeo 28653, sired by S. H. Worley 4th
 25881, another Toronto champion, is a younger sire
 of great individuality. Write us your wants, we
 will attend to them promptly and satisfactorily.
 Our stock of young pigs is par-excellence.

H. S. McDIARMID, Fingal P. O., Ontario
 Long-distance 'phone Shedden Sta.

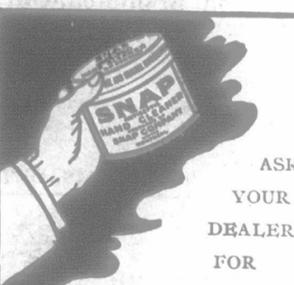
SWINE OF ALL BREEDS FOR SALE
 Yorkshires, Tamworths, Berkshires,
 Hampshires, Chester Whites, Poland-Chinas, and
 Duroc-Jameys. I have constantly in hand both
 sexes of all ages. Show stock a specialty.
JOHN HARVEY, Frelighsburg, Que.

PINE GROVE YORKSHIRES
 Bred from prizewinning stock of England and Can-
 ada. Have a choice lot of young pigs of both
 sexes, pairs not akin, to offer at reasonable prices.
 Guaranteed satisfaction. **Joseph Featherston &
 Son,** Streetville, Ont.

People in a Missouri town are telling
 this little story on a lawyer there. It
 happened in Judge Tedford's court, and
 the witness was a negro woman, whose
 reply to every question was "I think
 so."

Finally the opposing lawyer rose and
 pounded on the desk. "Now, look here,"
 he roared, "you cut that thinking busi-
 ness and answer my questions. Now
 talk."

"Mr. Lawyer Man," said the witness,
 "Mr. Lawyer Man, you will have to
 excuse me. I ain't like you 'torneys. I
 can't talk without thinkin'."



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SNAP
THE HANDY HAND CLEANER
 Keep a can at your office, workshop or
 home. Always useful, antiseptic. Good
 for your hands. All Dealers sell Snap.
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Questions and Answers.
Miscellaneous.

Henhouse Plans.
 Will you send me plans of a warm and
 inexpensive henhouse, which will accom-
 modate one hundred hens? L. F.
 Ans.—We would advise you to get a
 bulletin entitled, "Farm Poultry," which
 may be had upon application to Prof.
 W. R. Graham, O. A. C., Guelph, Ont.

Saluting the Flag.
 I am secretary of the school board
 here, and in visiting the school the other
 day, was asked by the teacher, "What
 is the proper way to salute the flag?"
 I could not answer, so thought I would
 ask "The Farmer's Advocate." T. Y.
 Ans.—The usual salute is simply to
 bring the hand up to the head, touching
 the cap or hat.

Silage Queries--Pneumonia in Steers.
 1. Would silage, put into silo in Sep-
 tember, 1913, be as good feed during the
 winter of 1914-1915, as it would be dur-
 ing the coming winter of 1913-1914?
 2. If two feet of silage were still in
 the silo from last year, and as we keep
 only one cow, silage being fed to beef
 cattle, should such silage be taken out
 of silo before putting in this year's
 crop?
 3. What would you think of two feeds
 of silage per day, and one feed per day
 of unthreshed rye, cut when green, for
 steers during winter, when they are to
 be fattened on grass the following sum-
 mer, or would it be better to let rye
 ripen, feed the straw, and a mixture of
 grains ground fed on the silage?
 4. Is a steer that suffered from pneu-
 monia last winter more likely to be af-
 fected with same trouble next winter than
 if he never had had it?

SUBSCRIBER.
 Ans.—1. Properly summered over, and
 the spoiled part thrown off the top be-
 fore putting on fresh, it should be.
 2. Not necessarily. If the little bit
 of spoiled silage is removed before re-
 filling.
 3. We would be inclined to prefer the
 mixture of grains, although you might
 use a part of the rye as hay, and the
 remainder to be mixed with other grains
 and fed as a light ration.
 4. Possibly so. It may have weak-
 ened his constitution somewhat. On the
 other hand, he may never have a second
 attack. The thrift of the steer should
 be a fair indication as to whether or not
 it is likely to occur again.

**Value of Skim Milk and Whey—
 Overrun**
 I am a constant and interested reader
 of your valuable paper, and admire your
 fearless stand taken on different ques-
 tions. I always look eagerly for Peter
 McArthur's weekly budget, which is cer-
 tainly refreshing. Would you please an-
 swer, through the medium of your paper,
 the following questions:

1. What is the cash value per cwt. of
 separated milk for feed for calves or
 hogs?
 2. How many pounds of butter will
 100 lbs. of butter-fat make?

C. E. B.
 Ans.—1. There is no uniform, fixed,
 cash value. It depends very much on
 conditions, such as the abundance and
 cost of stock which may consume it, the
 price of other feeds, the condition of the
 product as to sweetness, and the dis-
 tance, if any, that it may have to be
 hauled. Speaking generally, we consider
 that good, sweet, separated milk, fed
 warm on the farm where it is produced,
 should be worth at least 25 cents per
 cwt., and if raising calves or young pigs,
 we would rather pay 40 cents per cwt.
 for a limited quantity than
 to do without any. Pasteurized whey,
 in good condition, if not excessively di-
 luted with wash water, should be worth
 12 cents per cwt. for pig feeding. To
 get the full value out of either by-prod-
 uct, one must use it moderately in con-
 junction with other suitable feeds.

2. In ordinary commercial practice, it
 should overrun a sixth. That is, it
 should make 116 2/3 pounds of butter.
 However, the overrun varies with many
 conditions, and fluctuates in the best
 creameries, going sometimes below and
 sometimes above this average standard.

ARE YOU INTERESTED IN
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THEN write us a post card TO-DAY.
 Simply write the word "Roofing" and
 your name and address—that's all.
 We'll send you full particulars by return
 mail.

We'll show you why **Galt Steel Shingles**
 make the best and most satisfactory roof for
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It's worth your while to know this, and
 the cost of knowing is but One Cent (for the
 post card).

Just reach over and get a post card from
 your writing table NOW—before you turn
 this page. Address it to

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THE GALT ART METAL CO., LTD.
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Now is the time to buy a **Young Bull**. Every farmer with a herd of
 cows should have one—an Angus. We are offering two choice ones. The
 Angus are grand for crossing with grades, both for veal calves and steers.
 They mature quickly and fatten easily. Our price is low. Write. **Large
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 right away. Early lambs pay best. Write for prices.
FORSTER FARM, OAKVILLE, ONTARIO.

Maple Villa Oxford Downs and Yorkshires

This fall I have the best lot of lambs I ever bred. I have plenty of
 show material, bred from the best stock procurable in England. Order
 early if you want the best. Ram lambs, shearlings and ewe lambs.
 Yorkshires of all ages.
J. A. CERSWELL, BOND HEAD P.O., ONTARIO
 Bradford or Beeton stations Long-distance 'phone

Large White Yorkshires Have a choice lot of sows in pig. Bows
 ready for service and young pigs of both
 sexes supplied not akin, at reasonable
 prices. All breeding stock imported, or from imported stock from the best British
 herds. Write or call **H. J. DAVIS, Woodstock, Ont.** Long-distance 'phone.
 C. P. R. and G. T. R.

Prize Chester White Swine-Winner High class in
 type and quality, bred from winners and champl-
 ions. Young stock both sexes, any age, reasonable
 prices.
W. E. Wright & Son, Gleanworth P. O., Ont.

HAMPSHIRE SWINE
 Both sexes and all ages, from imported stock.
 Prices reasonable.
G. A. FOWELL, ARVA, ONTARIO
 Four miles north of London.

Woodburn Berkshires
 are founded on the famous old Sally tribe, noted for big size, length of body
 and strength of bone. We can supply pairs and trios not akin. Show stock
 a specialty. Also high-class Cotswolds, ram and ewe lambs, shearlings.
E. BRIEN & SON
RIDGETOWN, ONT.

Large White Yorkshires Have a choice lot of sows in pig.
 Bows ready for service and young pigs of both
 sexes supplied not akin, at
 reasonable prices. All breeding stock imported, or from imported stock from the best
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 C. P. R. and G. T. R.

Poland-China Swine and Shorthorn—
 Choice young stock, either
 sex, both breeds, to offer. Pairs not akin. Prices
 easy.
GEO. G. GOULD, Edgar's Mills, Ont.

Morrison Tamworths and Shorthorns
 herds of England; have a choice lot of young pigs,
 both sexes, pairs not akin; and also the dual-pur-
 pose Shorthorns. Satisfaction guaranteed.
C. CURRIE, MORRISTON, Ont.

ELMHURST LARGE ENGLISH BERKSHIRES
 Present offering: Select sows. Choice boars, ready for service; also younger stock
 the get of Duke of Somerset, imp., and out of imported dams. Satisfaction and safe
 delivery guaranteed. **H. M. VANDERLIP, Breeder and Importer, Calnsville, P.O.,**
 Langford Station. Brantford and Hamilton Radial.

Cloverdale Berkshires—Present
 offering: Sows bred and others ready to breed; also younger
 stock of both sexes. Prices reasonable.
C. J. LANG, Hampton, Ont. Durham Co.

**Duroc Jersey Swine and JERSEY
 CATTLE**
 Grand stock, either sex, constantly for sale. Price
 reasonable. **MAC CAMPBELL & SONS,**
 Northwood, Ontario.

The Call of the North

Do you know of the many advantages that New Ontario, with its millions of fertile acres, offers to the prospective settler? Do you know that these rich agricultural lands, obtainable free, and at a nominal cost, are already producing grain and vegetables second to none in the world.

For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

H. A. MACDONELL

Director of Colonization

Parliament Bldgs., TORONTO, ONT.



SEALED TENDERS addressed to the undersigned and endorsed "Tender for Supplying Coal for the Dominion Buildings," will be received at this office until 4 p.m. on Monday, July 14th, 1913, for the supply of coal for the Public Buildings throughout the Dominion.

Combined specification and form of tender can be obtained on application at this office and from the caretakers of the different Dominion Buildings.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied, and signed with their actual signatures.

Each tender must be accompanied by an accepted cheque on a chartered bank, payable to the order of the Honourable the Minister of Public Works, equal to ten per cent. (10 p.c.) of the amount of the tender, which will be forfeited if the person tendering declines to enter into a contract when called upon to do so, or fail to complete the contract. If the tender be not accepted the cheque will be returned.

By order,
R. C. DESROCHERS,
Secretary.

Department of Public Works,
Ottawa, June 14, 1913.

Newspapers will not be paid for this advertisement if they insert it without authority from the Department.—42889.

CUNARD LINE

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Special Interest to Farmers' Clubs

We secure "Help" for farmers from the country districts of the British Isles. Requisitions must be filled up. Copies sent on application. Average time to get your "Help," about six weeks. No fee charged. Only regular fare on ocean and rail to pay.

You need not be without "Help" this summer or fall if you send requirements early.

Write for further particulars.

CUNARD STEAMSHIP CO., LIMITED

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can be cured, not merely of the habit, but of its cause. The Arnott Institute has permanently restored natural speech to thousands—is doing it to-day. Write for full information and references to:

The Arnott Institute, Berlin, Ontario.

Gee! what a light!

Send for this handy **ELECTRIC FLASHLIGHT** Every Farmer needs it.

Press the Button and get a brilliant Electric Light. \$1.50 by mail, post free. Send to-day.

CANADIAN CARBON CO., 96 West King St., TORONTO

When writing mention Advocate

**No Gas
No Dust**

Supplies home with pure warm air.
Fused joints cannot leak.

Heating a Home Properly is Something More Than Raising the Temperature. The air must be pure as well as warm. The health of your family demands it. An odor of gas is not only unpleasant but is a menace to the health. Fine coal dust floating in the air is just as bad.

¶ The HECLA Furnace is absolutely gas and dust proof. The Joints, which in other Furnaces are made with bolts and cement, are fused in the HECLA. This process welds the cast-iron and steel into a solid one-piece construction.

¶ Expansion and contraction cannot spread the fused joint. Even after 20 years of service, the joints in the HECLA will be found perfectly tight. The fumes from the fire cannot find an opening. The air in the living rooms is always pure and healthful.

HECLA FURNACE

For Coal and Wood

Ribbed Fire-Pot

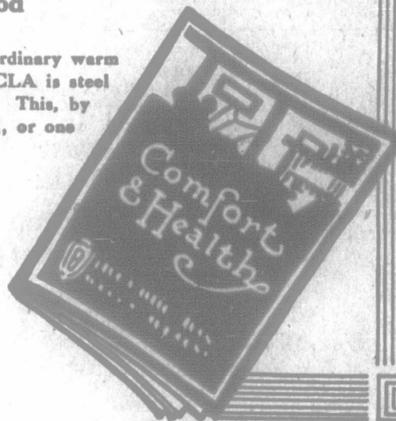


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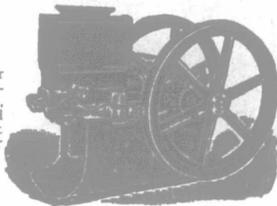


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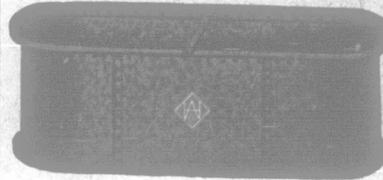
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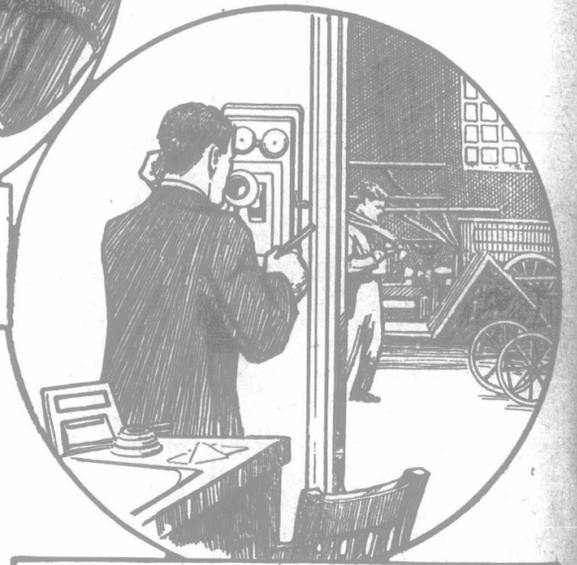
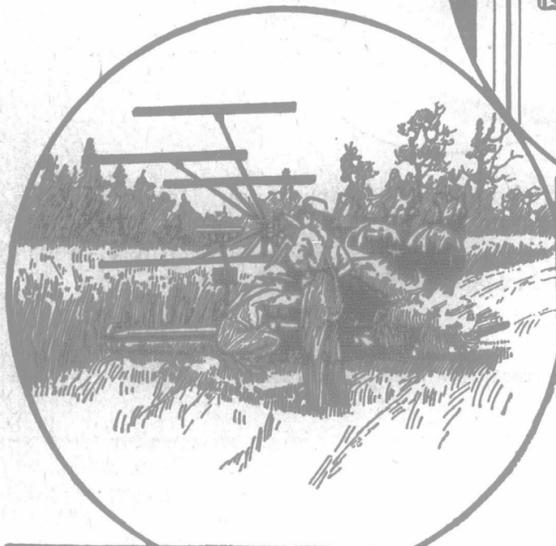
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