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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED
FOUNDED 1866

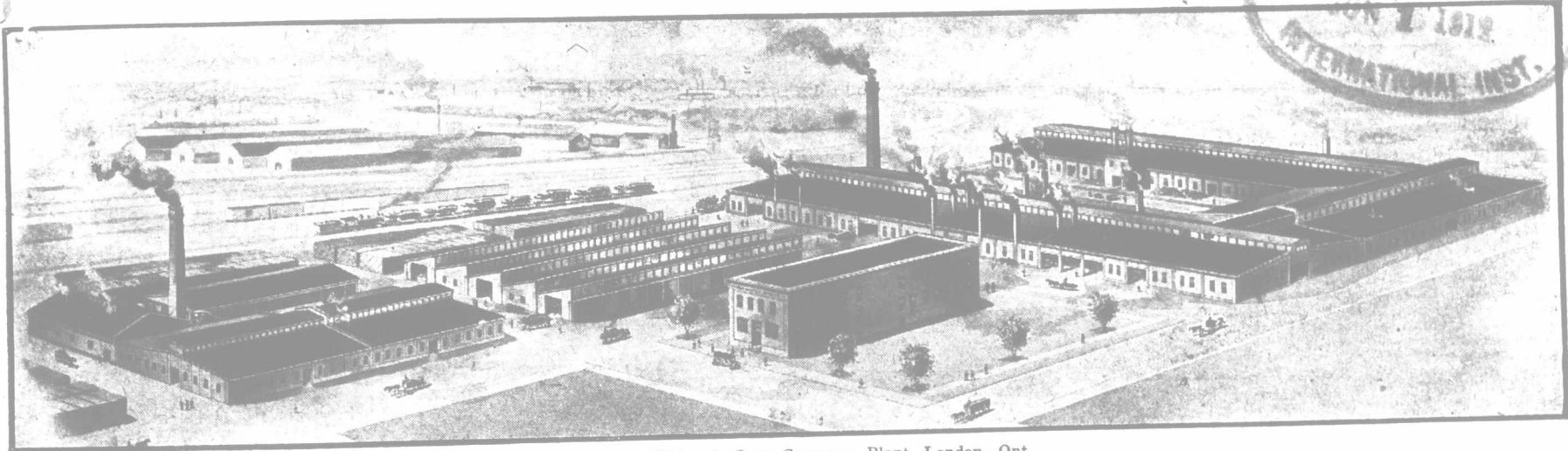
* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

R. K. Doherty, 9 Mar. 15, 12
Chief Officer Publications
Branch, Dept. of Agr.

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VOL. XLVII.

LONDON, ONTARIO, MAY 30, 1912.



The George White & Sons Company Plant, London, Ont.

The Durable Roofing

The cut shows the big plant that houses one of Canada's important and fastest growing industries. Note well the location. The plant stretches out along the G. T. tracks—it lies in the very danger zone of flying sparks and hot cinders. But that does not worry the George White & Sons Co. much. If you could examine the roofing of this big plant through a microscope you would see that even their Boiler House and Foundries were covered with

BRANTFORD ROOFING

Think of it!

The roofs shown in the photograph are subjected to the almost increasing onslaughts of the most relentless enemies of roofing—Acids and Fire.

Think of it!

Wave after wave of fierce heat—super-charged with deadly acids attack the roof, day after day, from within. Flying sparks and hot cinders, vomited from on-rushing trains, batter it without.

Add to this the biting frosts of zero weather—the driving sleet and rains of winter as well as the drawing action of summer suns—think of a roofing successfully withstanding this unusual warfare and you are bound to think of BRANTFORD ROOFING—the roofing that some people call the "Imperishable" Roofing. Because of its indestructible qualities.

There are sound basic reasons for the enduring qualities of BRANTFORD ROOFING. Whether you are in the market for roofing now or not it will pay you to consider them well. Because BRANTFORD is an every purpose roofing—the roof par excellence for farm buildings.

The 'Base' of Brantford Roofing is long fibred elastic wool—wool that is flexible and weather-resisting. This is saturated through and through with pure Asphalt—a mineral fluid that cannot be affected materially by heat or water, wear or weather. There are three kinds of BRANTFORD ROOFING. One is Asphalt with a silica sand finish—it wears like iron. Another called Rubber, has a smooth, rubbery finish—but contains no rubber. And Crystal has a wear-defying, rock-crystal surface. But—you just write for our big free book. It contains roofing facts you'll be glad to know as well as samples of the best roofing.

33

FACTORY AND HEAD OFFICES:

Brantford Roofing Company, Limited

BRANTFORD

CANADA

BRANCH WAREHOUSES: WINNIPEG, MONTREAL,

117 MARKET ST. 9 PLACE D'YOUVILLE

GRAND TRUNK RAILWAY SYSTEM

Canada's Double Track Line

HOMESEEKERS' EXCURSIONS

—TO—

WESTERN CANADA
Via Chicago and St. Paul

May 14th and 28th; June 11th and 25th, and every second Tuesday thereafter until September 17th

Winnipeg and return \$34.00
Edmonton and return 42.00

Tickets will also be on sale on certain dates via Sarnia and Northern Navigation Company.

Through Pullman Tourist Sleepers will be operated in connection with above excursions, leaving Toronto 10.30 p.m.

NO CHANGE OF CARS

Full particulars and tickets from any Grand Trunk Agent, or write A. E. Duff, District Passenger Agent, Toronto, Ont.

SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS.

ANY PERSON who is the sole head of a family, or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-agency of the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price, \$3.00 per acre.

Duties—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price, \$3.00 per acre.

—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

W. W. CORY,
Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

"Go North Young Man!"

WHY?

Because there are millions of acres of agricultural land in Northern Ontario in some cases free, and in others at 50 cents per acre, excelling in richness any other part of Canada, blessing and waiting to bless the strong, willing settler, especially the man of some capital.

For information as to terms, homestead regulations, special railway rates, etc., write to

H. A. Macdonnell
Director of Colonization
TORONTO, ONTARIO

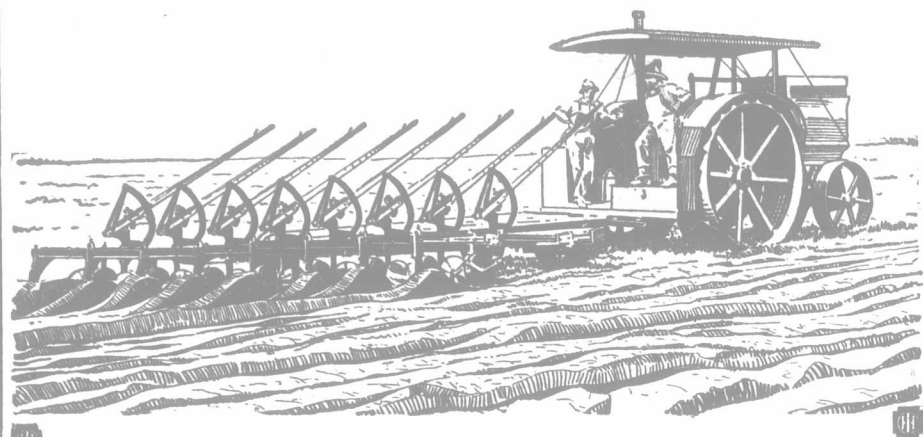
HON. JAS. S. DUFF,
Minister of Agriculture

FARMS FOR SALE

Choice stock, grain and fruit farms for sale. We specialize in high-class properties, and aim at offering good value. We have a special department devoted to listing and selling Ontario farms. Write for list.

UNION TRUST CO., LTD.
Real-estate Department,
201 Temple Building, Toronto.

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"Just Work"

IHC tractors are built for "just work." Whether that work be plowing, preparing and planting a seed bed, harvesting, threshing, irrigating, ditching, hauling, road making, well drilling, or the many other things that a tractor will do, the steadiest worker is an

IHC Kerosene-Gasoline Tractor

Is overtime demanded—the IHC tractor never tires; is the load a heavy one—the IHC has plenty of reserve power; is the work dusty and dirty—the IHC has no exposed bearings or rapidly moving parts to be injured. It carries its own daily supply of fuel. It may be set close to a stack without reference to the direction of the wind, without danger of fire, and, with all these advantages, it has done, is doing, and will do more work in less time at lower cost, and will last longer than any other tractor you can buy. These are statements of fact, backed by records made in actual use both in contest fields and on real farms.

Investigate tractor farming. Learn how you can profitably use an IHC tractor. Get all the facts from the IHC local agent. He will point out the many IHC tractor features and advantages in design, materials, and construction. He will tell you about the complete IHC line, which includes gasoline and kerosene tractors, 12, 15, 20, 25, and 45-H. P. in several styles, and horizontal and vertical general purpose engines, stationary or mounted on skids or trucks, air-cooled or water-cooled, 1 to 50-H. P. See him or write the nearest branch house for catalogue.

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International Harvester Company of America
(Incorporated)

At Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, North Battleford, Ottawa, Quebec, Regina, Saskatoon, St. John, Weyburn, Winnipeg, Yorkton.

IHC Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizers, etc., make your inquiries specific and send them to IHC Service Bureau, Harvester Building, Chicago, U.S.A.

Save Time and Energy by Purchasing the Improved

SIMPLEX CREAM SEPARATOR

Twentieth Century methods adopted in construction, large capacity, light running, perfect skimming, under a wide range of conditions.

For catalogue No. 5, apply to:

THE D. DERBYSHIRE CO.
Brockville, Ont.

Or **C. A. GILLESPIE,** Peterborough, Ont.

A FARMER'S POWER HOUSE ON WHEELS

Complete with Line Shaft, Truck, Pump Jack and interchangeable Pulleys capable of 60 changes of speed.

An engine that carries its own line shaft, pulleys, belt tightener and hangers. The Gilson 60 Speed Engine is a complete power plant in itself. You can haul engine anywhere, attach it and get just the speed desired—the only engine of its kind made. Gives 100 per cent service. Runs the whole farm. Goes like sixty—sells like sixty—has sixty speeds. 11 H. P., also 3 H. P. and 6 H. P. Engines up to 27 H. P.

WRITE TODAY. Write once for illustrated, descriptive literature and full information. Agents wanted.

GILSON MFG. CO., Ltd. 61 York Street
Guelph, Ontario

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"Baker" Wind Engines

Are built for hard, steady work, and keep at it year in and year out.

IT is the reputation which "BAKER" Wind Engines have fairly won and steadily held ever since their first appearance on the market, 33 years ago, that should be considered. They are famous for their durability, simplicity of construction and easy running. "BAKER" Wind Engines are so designed that the gears cannot wear out of mesh. The wheel is built on a hub revolved on a long stationary steel spindle, requiring no babbiting. It has a large number of small sails which develop the full power of the wind and enable them to pump in the lightest breezes. Has ball-bearing turn-table and self-regulating device, and all the working parts are covered with a cast shield, protecting same from ice and sleet. The above is only a few of the many features that have placed "BAKER" Mills in the lead. Let the H.-A. Co. agent give you complete information, or write direct for booklet.

We make a full line of Steel Towers, Galvanized Steel Tanks, Pumps, Pneumatic Water Systems, Spray Pumps and Gas and Gasoline Engines.

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Windsor, Ontario

"Good as Gold"

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Write at once for this valuable book. It contains information that every farmer should have regarding the sanitary housing of dairy cows. It explains every fundamental of correct construction and gives proper dimensions and arrangements. It describes lighting, ventilation, stable floors, and their construction, and contains suggestions about silos, site, exposures, appearance, design, drainage and inside equipment. Besides, you will find in this book a number of practical barn plans and other information that may point the way to your saving many a dollar. We have designed many of the finest and most modern dairy barns in this country and this book is based on our long experience and expert knowledge in dairy barn construction. The book contains in concise, clear and condensed form, information necessary to any farmer who is planning to build or remodel. Understand, we send you this book absolutely free without any obligation on your part—just for answering these few questions: Do you intend to build or remodel? How soon? How many cows have you? Will you want a litter carrier? Will you want a hay fork outfit? Send to-day.

BEATTY BROS. BOX A FERGUS, ONTARIO



Flies! Flies! Flies!

Get rid of them and help make your home and premises sanitary by the liberal use of *Tanglefoot Fly Paper*. There is fully one-third more compound per sheet on *Tanglefoot* than on any other fly paper; hence it lasts longest, catches the most flies and is the **best and cheapest** fly paper. If you ask for "fly paper" or "sticky fly paper" you may get a cheap imitation that will soon dry up or glaze over. **Ask for Tanglefoot.**

Sold by Grocers and Druggists.

TREE TANGLEFOOT, put up in 1, 3, 10 and 20 lb. cans. Will protect your trees from all climbing insects.

EUREKA Glass Tank Sprayer



Solution tank is a quart Crown glass jar. If broken, it can be easily replaced for a few cents. Solution tubes are brass. None of the liquid used can be drawn back into the pump chamber, thus the chamber and valves are uninjured. This is the easiest operated and the most effective small sprayer on the market. Inquire of your hardware dealer.

Write for our complete catalogue of Sprayers and Garden Tools. THE EUREKA PLANTER CO. LIMITED Woodstock - Ont. 6

THE Stratford Extension Ladder

IT IS strong, serviceable, light, easily operated and durable, with wire-trussed reinforced sides.

If interested, write for booklet H, which tells all about this and other lines of ladders.

The Stratford Mfg. Co., Limited
STRATFORD, ONTARIO

Buy a Wagon You Can Depend On!

For convenience, strength and durability—get a T-A Handy Farm Wagon. Designed especially for farm work, will give everlasting service under the roughest usage to which a wagon can be put. And besides—it is easy on horses.

T-A Wide-Tire Steel Wheels & Handy Farm Wagons

Carefully and strongly built, of the highest grade material, these T-A Wide-Tire Steel Wheels will carry 25 to 50 per cent. heavier loads without the least danger of breaking down or getting stuck.

We will be pleased to send you descriptive catalogue. Write for it.

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MOVE TO CHILLIWACK BRITISH COLUMBIA

On the Sunny Pacific slope, where the winter lasts one month, and where the farmer receives larger returns on his investment than anywhere else in Canada. Write for free illustrated booklet.

Sec'y Board of Trade, Chilliwack, B. C.

Bulletin 33

"Country Gentleman" says: "Every reader should have it." Will be mailed free upon request. Contains complete farm uses of Avenarius Carbolineum. The entire agricultural press endorses its use as does the United States Department of Agriculture.

CARBOLINEUM WOOD PRESERVING CO.
194 Franklin Street New York

Get this New Page Book - and learn how to equip farm, factory, home and office at factory cost.

In these days of high cost of materials this remarkable new Page Book should find a hearty welcome in every home in the land. It will open your eyes to great savings—savings that can be made in the purchase of things needed every day as equipment on the farm, in the factory, home or office. Don't pay the usual prices—get your copy of this book to-day, and learn how to

BUY THE PAGE WAY

To tell you that these things are sold the Page Way—the way that has made Page Wire Fences and Wire Products famous everywhere—should be enough to prove to you the wisdom of sending for this book RIGHT NOW. The Page products are famous for two things—QUALITY: A superb quality of material and workmanship that for years has commanded the respect and admiration of thousands—and LOW PRICE: A price that means absolutely the greatest value obtainable in every single article sold by the Page Company. These articles have simply GOT TO BE of splendid merit and value because the sterling reputation enjoyed by the Page Company for so many years is jealously guarded as by far the most valuable asset they possess. The Page Company would not, under any consideration, market any article that would jeopardize this reputation in the slightest. Every article MUST be fully up to the highest standards of quality.

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THIS COULD BRING THE BOOK



THE REGINA PNEUMATIC CLEANER
37 varieties of Page Fence in weights and mesh to suit all needs.



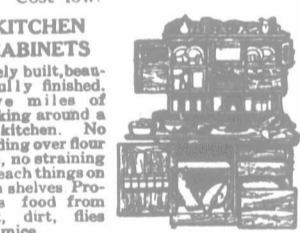
KITCHEN CABINETS
Finely built, beautifully finished. Save miles of walking around a hot kitchen. No bending over flour bins, no straining to reach things on high shelves. Protects food from dust, dirt, flies and mice.



PIANOS
Made by one of the most famous makers on the continent. Rich, pure, lasting tone. A beautiful instrument.



PAGE "SPECIAL" POULTRY FENCE
Graduated mesh. Will turn poultry or large stock.



Steel Ranges
This famous make saves from 15 to 20 pounds of coal a day when used continually. Magnificently constructed. Bakes perfectly in a third of the time necessary with the old cook stoves. Asbestos lined flues, anti-clinker grates.



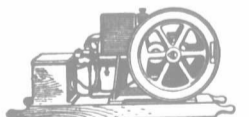
FAMOUS PAGE GATES
Acknowledged leaders of the world. Prices lowest.



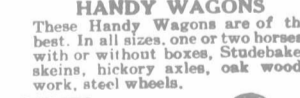
PAGE IRON FENCING
Many designs, simple or ornate. For any purpose. Any price.



STEEL WHEELS
Can be used on old gear or put on a new farm wagon. Fit any size spindle. For any kind of wagon from a log cart to a traction engine. Finest quality of steel. Built to last forever.



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These Handy Wagons are of the best. In all sizes, one or two horses, with or without boxes, Studebaker skews, hickory axles, oak wood-work, steel wheels.



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11-2 H.P. cycle. For either gasoline or kerosene. Simple, efficient and very difficult to get out of order.



PUMPS
Made by one of the most famous concerns on the continent. Aylmer pumps are known everywhere for their fine construction and perfect work.



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Every scale is sold with a Government certificate guaranteeing its correctness. In all sizes for all purposes. Strong, compact.



FENCE TOOLS
We sell every tool needed in erecting any kind of Page Wire or Iron fence; post hole diggers, bolt cutters, staples, locking tools, safety blocks and tackle, iron posts, fence anchors, etc.

USE IT NOW!



Buy a McCormick Binder and Be Satisfied



IT took years to develop the McCormick binder. The final product of these years of development is the Hamilton-made 1912 Canadian McCormick, the satisfactory binder. Daylight is too precious during the short harvesting season for a farmer to run risks. You must have a machine which will do the work free from interruption, free from delay, whether it be by breakage or faulty binding. A binder has to do more delicate work than any other similar machine. It has to perform a highly complicated mechanical operation when cutting grain, elevating it, and tying it into bundles under all sorts of conditions. To do this many separate parts have to be put together and adjusted on every binder so that it can pick up tangled grain, and leave a clean field.

Only the most carefully graded steel, the toughest iron, and the most conscientious workmanship can stand this strain year after year. That is why the McCormick machine is the safest for you to buy. Every chain link is proved and every working part examined, inspected, and tested before the machine is packed for shipment.

Call on the McCormick agent and inspect the McCormick binder. Ask him to show you the complete McCormick line of harvesting and haying machines and binder twine. Get catalogues from him or write to the nearest branch house.

Eastern Canadian Branches
International Harvester Company of America
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At Hamilton, Ont. London, Ont. Montreal, P. Q.
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I H C Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizers, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Building, Chicago, U S A



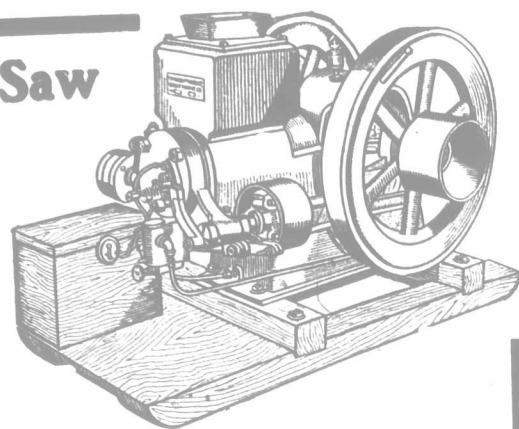
McCormick

Standard Wire Fence

Here's the Fence That is all Steel—
 Steel wires, steel locks, steel posts. Standard Woven Wire Fence is all No. 9 hard steel wire, well galvanized. "The Tie That Binds" is hard, smooth steel that holds uprights and running wires absolutely secure without injury. Standard Patent Posts are 12 gauge steel, bent at right angles, and so constructed that wires are held without staples. Let us tell you a lot of other things about the Standard Wire Fence and our Metal Gates of Galvanized Tubing. Our books are full of facts. Write for free copies and sample lock.

THE STANDARD WIRE FENCE CO. OF WOODSTOCK, LIMITED, Woodstock, Ont. and Brandon, Man. 18

Pump Water, Saw Wood, Grind Grain, Churn



and do many other labor-saving tasks with the **Barrie Engine**. Will pay for itself quickly by saving valuable time for you. Strong, rugged construction. So simple a lad can run it. Sure in action. Economical in operation. Every farmer needs one.

Write for booklet.

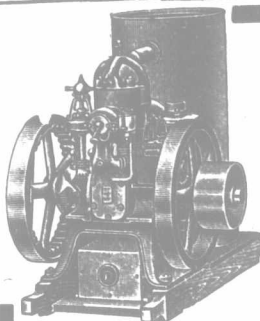
AGENTS WANTED

Barrie Engines

Stationary or Portable; 3 to 100 h.-p., for gasoline, distillate, natural gas and producer gas. Make and break or jump spark ignition.

THE CANADA PRODUCER & CAS ENGINE CO., LTD.
 Barrie, Ontario, Canada

Distributors: James Rae, Medicine Hat; Canada Machinery Agency, Montreal; McCusker Imp. Co., Regina



This Engine Runs on Coal Oil

Every farmer can afford an Ellis Coal Oil Engine. They give as more power from coal oil than other engines do from gasoline. They are safe, as well as cheap; no danger of explosion or fire.

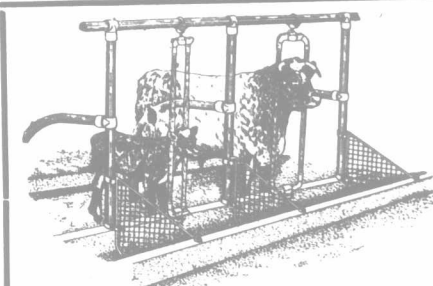
The strongest and simplest farm engine made; only three moving parts: nothing to get out of repair. Anyone can run it without experience. Thousands of satisfied customers use these engines to grind feed, fill silos, saw wood, pump, thresh, run cream separators, and do dozens of other jobs. Cheaper than horses or hired men. Fill up the tanks and start it running, and no further attention is necessary; it will run till you stop it.

FREE TRIAL FOR 30 DAYS. You don't have to take our word for it. We'll send an engine anywhere in Canada on Thirty Days' Free Trial. We furnish full instructions for testing on your work. If it does not suit you send it back at our expense. We pay freight and duty to get it to you and we'll pay to get it back if you don't want it.

Absolutely guaranteed for 10 years. Write for free catalog and opinions of satisfied users. Special offer in new territory.

3 to 15 horse-power
 We Pay Duty and Freight

Ellis Engine Co., 94 Mullett Street
DETROIT MICH.



STABLE YOUR CATTLE THE SUPERIOR WAY

By doing so you will give them the greatest advantage in producing the maximum of the highest priced product. With SUPERIOR equipment you will have the greatest possible SANITATION, COMFORT, CONVENIENCE and DURABILITY in stable construction for very little expense.

If building or remodeling, write for our free book before you decide on your equipment. Drop us a card to-day. Agents wanted.

The SUPERIOR, the only Stanchion that you can adjust to tie from your smallest calf to your largest export steer.

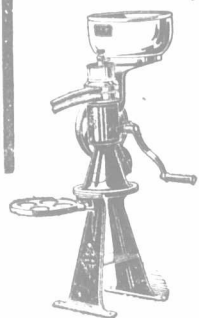
The Superior Barn Equipment Co.
 Fergus, Canada

Cream Separator Facts Worth Knowing

THERE are six important things a cream separator should do in order to be a paying investment.

- FIRST: It should get all the cream.
- SECOND: It should get the cream in perfect condition.
- THIRD: It should save you money.
- FOURTH: It should save you work.
- FIFTH: It should be durable.
- SIXTH: It should make money for you.

There are a host of machines that are claimed to do these six things. But Empire separators are the only separators actually doing the whole six.



Frictionless Empire

That's certainly a bold statement. It's the truth, nevertheless.

FIRST: Empire Cream Separators skim to .02 per cent, and often less. That means the loss of only one pound of butter fat in every five

thousand pounds of milk, which is equal to the loss of one pound of butter fat in all the milk a cow gives in one year. The Frictionless Empire gets all the cream

EMPIRE Cream Separators

SECOND: The few smooth-skimming devices of Empire separators are as easily and thoroughly washed as glass tumblers. This cannot truthfully be said of skimming devices with corners, slots and crevices that soon get clogged up and cannot be thoroughly cleaned. Cream in perfect condition—cream without a taint—can only be obtained from a separator that can be thoroughly cleaned.

THIRD: Empire separators get thirty per cent. more cream than old style methods. The more cream saved the more money saved.

FOURTH: Empire separators do the skimming in a fraction of the time required with old style methods. They save many hours of work.

FIFTH: You can judge the durability of Empire separators when we tell you that the

average cost per machine has been less than thirty cents a year for repairs during ten to fifteen years of service.

SIXTH: Empire Cream Separators get thirty per cent. more cream than old methods. The cream is first quality—commands a higher price than gravity cream. More cream and higher price cream necessarily mean more money. The Empire will give you enough more profit than a cheap separator to pay for itself in two years. No other separators will fulfil all these six requirements. They cannot do so, because they cannot use the Empire patented devices and mechanism.

These patented features are found only in the Frictionless Empire (cone method) and Empire Disc. Whichever you choose, you are bound to be satisfied. Every Empire Separator is sold under a binding guarantee—a guarantee as good as a gold bond.

Write for a copy of our latest catalog. It describes both machines completely and is handsomely illustrated.



Empire Disc.

The Empire Cream Separator Co. of Canada, Limited. Toronto, Winnipeg, Montreal, Sussex

AGENTS EVERYWHERE IN CANADA—LOOK FOR THE EMPIRE SIGN.



FARMING

has become a specialized
business

It's no longer a "hit-or-miss" occupation, where "any old way" is good enough. Farmers are buying pianos and automobiles as never before. They're *living* as well as *working*.

The farmer has learned that it *pays* to employ progressive methods. That's why he is ever ready to receive helpful suggestions for improving his crops, his land and his home. It's also the reason that more than fifty thousand Canadian farmers are enthusiastic about our handsome book,

"What the Farmer Can Do With Concrete"

It isn't a catalogue, nor an argument for you to buy something. It is clearly written, interesting, profusely illustrated. It describes the various uses to which concrete can be put on the farm. Not theories, but facts, based on the *actual experience* of farmers all over the continent. It is the most complete book on the subject ever published, fulfilling the pur-

pose behind it, which is to help the farmer take advantage of concrete's possibilities. The list of subjects covers every conceivable use for concrete on the farm. The book's actual value to you will far exceed the list price of fifty cents, but if you will send us your name and address at once, we'll be glad to

Send it to You Absolutely Free

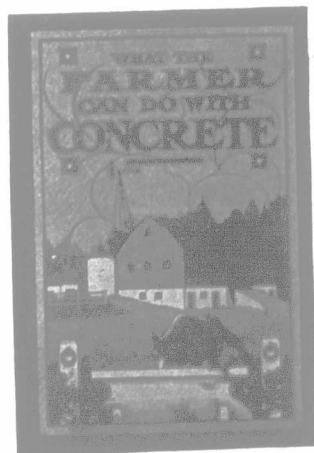
Send a post card for it—do it to-day. The book will be sent by return mail.

Canada Cement Company

LIMITED

National Bank Building

MONTREAL





Before Another Day

is gone get your bicycle. Every day between now and the day you pick your mount is another day without the help a bicycle will give you.

The bicycle saves hours of time every day.

No such return to popularity as the bicycle is enjoying could have been possible but for its practical value.

"Brantford," "Cleveland," "Massey," "Perfect" and "Ivanhoe" Bicycles

are known for sturdy construction and up-to-the-minute features. There never have been other bicycles that could beat them for reliability. Hundreds of old models are in use which were bought years ago.

THE CUSHION FRAME Makes Rough Roads Smooth

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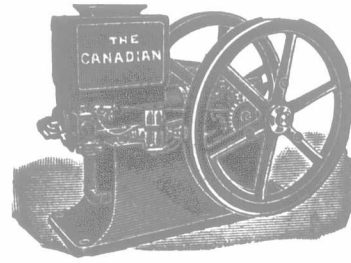


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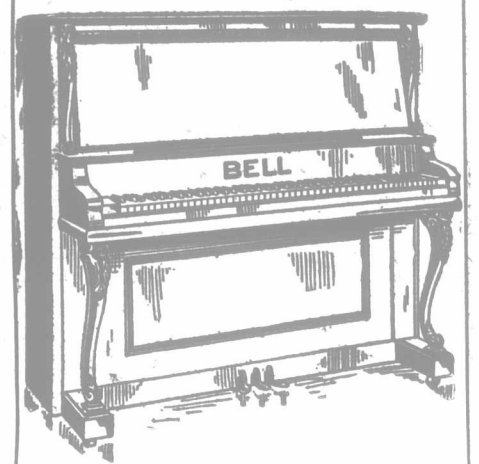
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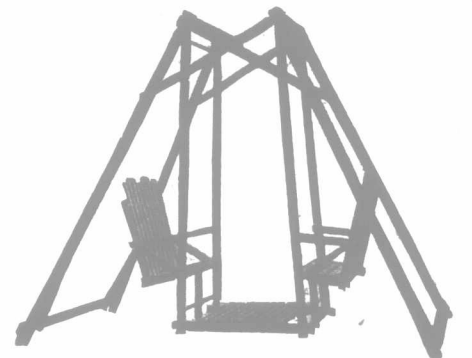
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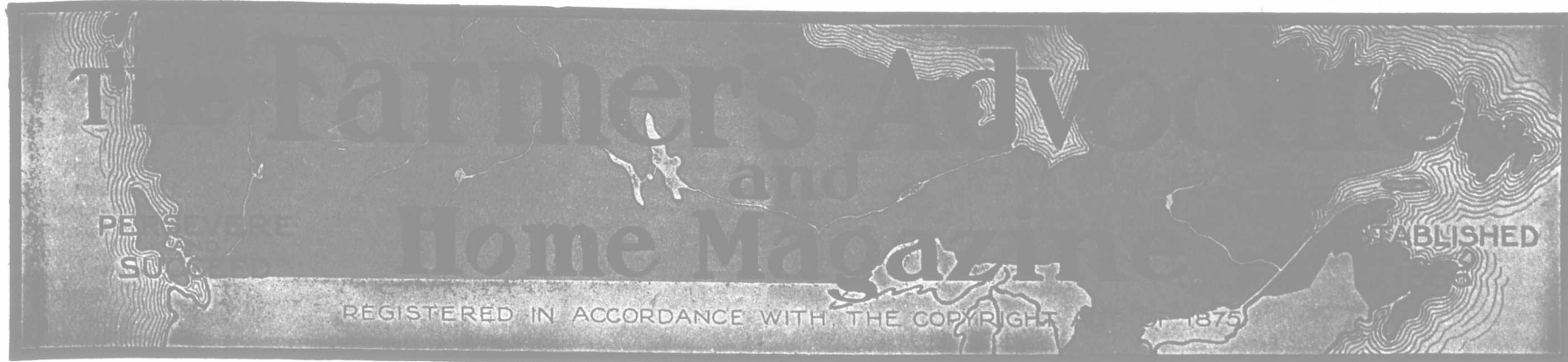


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The Steel Trough & Machine Co., Ltd. Dept. 102 TWEED, ONT.



Vol. XLVII.

LONDON, ONTARIO, MAY 30, 1912.

No. 1027

EDITORIAL.

Do not be in too much hurry to sow the turnips. Crisper, better-quality roots usually result when the sowing is delayed until about the middle of June.

By early and persistent weed-killing the soil will be delivered from a host of hidden enemies, ever ready to spring to life, increasing our labors tenfold and lessening our crops.

It is estimated that over twelve million acres of wheat have been sown in the Western Provinces this season. Enormous areas of new breakage have increased the acreage this year 20 or 25 per cent.

In building new barns or stables, it is always well to allow for some expansion of the business, as the increased accommodation can be made at much less expense when the building is under construction than when added later.

If the amount of rain which fell in May, accompanied by cool weather and snow, is any criterion to judge by, the weather forecaster who promised that 1912 would be hotter and drier than the preceding season must have had a poor indicator.

When Cabinet Ministers become so pestered with patronage applications and correspondence that pressing public business is seriously hampered, the time has surely arrived for a thorough-going measure of civil-service reform. It would be a great relief to the average member of Parliament and develop a higher standard of public service.

The rapidity of growth of the corn and hoed crops generally depends largely upon the frequency and thoroughness of cultivation during the early stages after planting. Harrow the corn as it is coming up, and cultivate it as soon as the rows can be followed. It is often advisable, with the roots sown in drills, to cultivate before they break through the ground. Keep the cultivator going and harvest a big crop of winter feed.

"Farm help may be scarce, but you would never think it from the advertising columns of the weekly papers," remarked a man in our office the other day, who was looking for a chance to get out in the country in charge of a place. He was a likely-looking man of middle age, country-bred, but now holding a fairly good position in the city. Wife, children and himself were anxious to live in the country, but, with all the cry of insufficient help, he could not learn of an opening to his liking, and wondered why some of the men wanting help so badly did not advertise. We suggested that one reason was that many did not think of it, while others hated to risk the price of an announcement. All the same, his remark set us thinking. While it is idle to pretend that farm help is plentiful, there are, nevertheless, some good men to be had, at fair wages, and an advertisement in a paper like "The Farmer's Advocate" is a first-class way of discovering them, as we know by experience. Of course, one must sift the applications very carefully, and it is well, if possible, to make independent inquiry about the candidates, but it is worth while—better a good deal than grumbling. Advertising is cheap, compared to travelling expenses, and goes thousands of miles. If short of help, advertise.

Encourage Farm Girls.

Scores, yes hundreds, of reasons have been advanced to account for the boys leaving the farm to engage in urban occupations. The problem is still unsolved. Perhaps if all the sound reasons advanced were put together in one volume they would about cover the case. In dealing with the subject of the trend of population cityward, by far the largest percentage of writers discuss the problem from a very one-sided point of view. The boy would seem to be the only person that the rural district cannot afford to lose. The migration of the girls is ignored almost entirely. In reality, the loss of the girls is a more serious blow to the country districts than is the loss of their brothers. While not entirely filled, the boys' places are somewhat taken by the immigrants from the Old Land. Not so with the girls. Once the country is depleted, there is no way to replace them. Women immigrants are not so numerous as the males, and those who do come to our shores remain in the cities.

One of the Toronto dailies some time ago cited this condition of affairs as "startling," basing its knowledge on the fact that the last census showed that several counties contained far more men than women, viz., Bruce, with 1,875 more, Grey 1,719, and Welland, which is a small county, 2,381. Continuing, this paper pointed out that there is scarcely a county in Ontario where agriculture is the foremost industry in which there are not more men than women; while in the urban constituency of North Toronto alone there are 7,500 more women than men.

Here is a state of affairs upon which those interested in social problems have ample scope to exercise all their thought and genius, and one upon which every citizen of Canada can afford to ruminate. A country's strength depends upon the number and character of its homes, and a country's homes depend upon its women. With such a condition of affairs as now exists, and which from year to year is growing worse, what will be the outcome? There is no surer and quicker method of permanently reducing the rural population of our country than by the steady course of its young women to the commercial centers. Such a condition does not point to an increase in the number of homes in the land, but it is a sure road to the reverse. City girls do not leave the city for the country, and country girls, once in the city and accustomed to its society, bustle and excitement, rarely return to the country to make a home. With the men predominating in numbers in the country districts, and the women in a large majority in the cities, conditions can never right themselves. In fact, such circumstances only increase the tendency for more of the men to flock to town.

Girls going to the cities get positions in offices as stenographers or clerks, many work in stores or whitewear factories—and why do they do it? The writer in the paper heretofore referred to gives the following as the main reasons. "It would probably be found that the desire for pocket-money and the instinct of gregariousness are the two chief causes for the drift of the girls from the farm. Too many comfortable Canadian farmers think their daughters have no need of money, and that for their services an occasional dollar, grudgingly doled out, is ample recompense. Many a girl becomes a wage-earner in the cities so that she may sometimes have a dollar to spend, even though in earning it she must live

under conditions that are not nearly so agreeable as life on the farm."

The old cause, lack of social intercourse, is also alluded to. Social life in the country is claimed to be less attractive than in the old days of dances, sleighing parties, spelling bees, and Templar meetings.

What is the remedy? Here is what the newspaper editor puts forward, and it is worthy of consideration: "The telephone, with its facilities for arranging social gatherings; good wide roads that would permit women and girls to drive about more, without danger of being crowded into the ditch by every passing motor-car; the making of regular and systematic money allowances to the girls, to be spent on their own initiative, and the introduction of sanitary conveniences into farm buildings, would do much to prevent rural Ontario from becoming a country of elderly and middle-aged people, while the cities are swarming with pallid, restless girls who would be the life and joy of the farms of this fertile Province."

Girls abhor solitude. Their more sensitive disposition, and all the finer qualities which go to make up human femininity demand company, and, with company, wholesome excitement. The telephone and quiet driving horse (one which any woman can drive with safety) are great helps in this direction. But when it comes right down to the bottom of the matter, modern conveniences which eliminate drudgery in the home, and sufficient spending money, would do more than anything else to keep the girls in the country. No young woman cares to be a burden upon her people. She would rather work for wages first, and we admire her pluck. The girl who does a share of the work in the farmhouse earns her money just as legitimately as if she pounded the keys of a typewriter or made or sold any of the articles known to commerce. She should not hesitate to accept it, neither should it be withheld from her or grudgingly given. Make the woman's task lighter in her home, and she will not be so desirous of changing her position for one in the city. Give her opportunity to enjoy life. All can be accomplished, and it is a duty which every farm owes its womenfolk.

Waste Places and Overhead Charges.

If the profits of the packing business are found in the by-products, is it not likewise true that a good share of the profits of farming lie in the by-products? The farmer pays taxes and interest or rental on every square rod of land within his line fence. He also bears the expense of fences and many overhead charges. For instance, the interest and depreciation on house, barns and implements are the same, whether he utilizes the odd corners of the farm, or not. Now, all these overhead charges must be met, and every acre should contribute its share; otherwise, the tilled areas are called upon to yield more than they are capable of producing in their present condition of fertility and cultivation. Every business man realizes the necessity of lightening the overhead charges on cost of production by distributing them over the largest output of which his plant is economically capable. So should the businesslike farmer, otherwise his business will sag beneath the weight, leaving him wondering why.

On almost every farm in North America there are opportunities for enlarging the productive area, thereby swelling returns, decreasing average cost of production, augmenting profits and greatly

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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

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

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

improving appearances. The boulder or stump in the middle of an arable field, which could be freed of obstruction by fifty cents' worth of stumping powder; the superfluous fence-bottoms, widened, often, to three or four times a normal space by shrubs, stunted trees, stone piles, and rubbish; the odd corners near the barnyard, strewn with the parts of discarded machinery; the needlessly wide lanes; the side-hills grown up with raspberry canes, which might be worked down or seeded to alfalfa or pasture; the run-out old pasture or meadow; the half-acre of bottom land through which a crooked ditch winds—all these places may and should be made to earn their proportion of overhead charges. It takes time, of course, and sometimes a slight outlay of money, but much could be accomplished if we could only get at it.

Realization of necessity is the best spur to action. A rainy time, such as recently experienced in Southern Ontario, affords a first-class chance to make a start. Commence now, eliminate the unsightly waste places, and make every square rod count.

Education that Interests Pupils in the Farm.

Four years ago, O. H. Benson, who is now in the United States Department of Agriculture promoting the organization of boys' and girls' agricultural clubs, was superintendent of schools in Wright County, Iowa. Selecting 34 rural schools in the county, he inquired of the boys and girls above the fourth grade what they intended to do when they were grown up. Of the 164 boys, 157 replied that they would have nothing to do with farming; and 163 of the 174 girls were equally emphatic.

Three years later, during which time instruction in elementary agriculture and home economics has been given and correlated effectively with other school work, the question was repeated in the same schools. This time, out of 174 boys, 162 answered that they intended to become farm-

ers, and 161 of the 178 girls announced that they planned to become homekeepers, farmers, and so on.

The schools, with their unpractical text-books, and the fathers and mothers who deplore their own hard lives, and wish something better than farming for their children, are somewhat responsible for the exodus from the country, observes the Country Gentleman, commenting upon these facts. Sure enough.

Practical Education.

Editor "The Farmer's Advocate":

I am sure your readers were pleased with your comprehensive editorial in the issue of April 25th on "University Agricultural Teaching," there will be few, if any, of them who would not agree with your statement that agricultural teaching is most imperative in the common schools. How young a child is when he or she begins to think and talk of what they will do when they grow up. Col. Hughes at least understands when a child's education should commence, when he insists that military training should be introduced in the common schools. By all means let us have agriculture taught in the common school. Collegiate institutes and universities, but not by men who have spent only two short years studying this subject, which is of greatest importance. We all know the value of practical experience, and those of us who are familiar with the curriculum of the O. A. C. will heartily endorse the convincing statements you have made on this subject. Possibly the heads of McMaster and Queen's Universities have not yet given this question all the consideration needed; indications point to very recent study of it on their part.

I cannot understand why the present system of education has been allowed to exist so long—a system which from start to finish draws our young people away from the farm and blinds them to the great opportunities which are given to lead an ideal life. An education such as you have suggested would bear the most fruit in the years to come, but why should we not have more help for farmers of all ages in the near future, say a year or two? I was born and brought up on a farm, but knew little or nothing of the hardships endured by the average farmer until a few years ago, when I came among them and began to farm on my own account. I see many farmers, and read of others who toil all day like oxen, not only from dawn to darkness, but often far into the night; some build up fine farms and accumulate money, while others are never able to come as near making "both ends meet" as they did when babies playing in their little cots. The question I have been asking myself (and every other farmer when I could do so in a quiet way) was, "Does it pay to be a farmer, and why is it that so few of us are living as we ought? I am now convinced, from what I have seen, and from what I have learned from others, that the answer is, "Lack of education," and the failure to get out of the rut of old habits and customs. We have many fine agricultural papers (I have an inexhaustible stock of admiration for "The Farmer's Advocate"), but many hesitate about investing a few dollars in papers and magazines, because there seems so little time to read them; but if we would take the time to read more, we would soon find better methods of farming. We have our agricultural colleges and experimental farms, but their reports do not seem to be studied and read the way they should be. We go on an excursion perhaps once a year to see the Ontario Agricultural College—those of us who can (there are many of us not able to go). We see the stately college, with sweeping driveways, velvety lawns and gay flower-beds; we are proud of it; we say that is all right, the Government is at their back! We can't realize, as we should, that there is little, if anything, done there in field practice but what would pay us to do, also. This is where the Wm. Weld Co. farm comes to our rescue—only 112 acres, an average farm; our difficulties will be their difficulties; their successes will be more easily believed and followed than those of the O. A. C. Why are we so slow to adopt better methods of farming? Some would answer, "Lack of help; we know of much that should be done, but can't, because we have not got the necessary help." But I would say again, "Lack of education." When we can make farm life more pleasant and profitable, and shorten the day's work, we'll have less difficulty getting help. How many go out West to face unknown difficulties, and trail away to frozen gold fields and face every kind of hardship, risking life and limb for the gold they hope to find? For forty-six years "The Farmer's Advocate" has been telling us that there is gold, gold, gold right under our feet in our farms. They did not stop at that; every season we are told in what direction that gold is most likely to be found, and complete directions given to accomplish the work. The ordinary gold field can be worked out, but the more we work our gold field, the more we find.

Some time ago I read of a proposition to have

an agricultural expert placed in every town, with an office, where farmers could go for advice—the same as they would to a doctor or lawyer. Why not have this expert placed on a farm? If we could get the Government to buy farms of various sizes, and have a number scattered over each county in charge of an expert who would give information at any time to those requiring it, making it a new kind of "better farming special," always to be found on the one spot when needed, open to visitors, the daily work to be a practical demonstration, showing how crops and live stock should be cared for, and at the close of the year a complete, accurate report given of all expenditure and profits, I am sure a farm or farms of this kind would be of immediate benefit to all. I feel safe in saying that the Wm. Weld Co. farm will do more for us than tons of the ordinary farm literature. If proof of this statement is needed, recall the difference between "practicing" and "preaching," and how much we are influenced by what we see. Note, also, how you will find dairying to be the most important work in some sections, while other sections excel in corn, onion and tobacco growing. Inquire the reason of this, and you will mostly find that years ago one or two progressive men, understanding their work and grasping the opportunities of their particular locality, started in on new lines. Silently they worked away; as a rule, these men say little about their successes and failures (unless to intimate friends); their books are not thrown open to the public, but their work speaks for itself, and in a few years many of their neighbors will be found engaged in the same lines of work.

I can't imagine any reason why we should not have experts on farms provided by the Government. They would be a source of revenue or income after all expenses were paid.

BELFAST CAMPBELL.

HORSES.

Give each horse a chance to tone up his system by a run on grass. With the amount of rainfall this season, grass should be sufficiently abundant to give all the stock a plentiful supply.

Do not forget that the first year of the colt's life is one of the most important with regard to its development. Foals will eat grain at an early age. Place a box in the mare's paddock or box stall where the mare cannot get at it, and keep it supplied with fresh, clean oats or oat chop.

A stallion which is himself a good individual, and which has a long line of ancestry of notable breeding and individuality, is far more likely to get colts of a uniform high quality than one, although of excellent quality himself but not having as good breeding behind him. Inquire into the stallion's breeding before using him.

If colts of uniformity suited to the production of matched teams are wanted, make it a point to breed the mare to the same horse each year, if possible, and also select a horse which conforms as nearly as possible to the type of the mare. Mating individuals of vastly different conformation can never be depended upon to produce the same results twice.

Keeping Down the Cost.

The average farm horse is kept from year to year, without much attention being paid to the cost of maintenance, which in every case where good feeding is practiced, is more than the casual observer imagines. Specialized farming tends to increase this cost. W. H. Tomhave, of Minnesota University Farm, states that the cost of keeping farm horses is greatly reduced by diversified farming and the keeping of brood mares. He estimates the cost of keeping the average farm horse in the State of Minnesota to be approximately \$85 per year. This includes such items as feed, shelter, labor in caring for the horse, depreciation in value, shoeing, and all other expenses. It is also estimated that the length of time which each horse works during the day is a little less than four hours for a yearly average, excluding Sundays and holidays. The double problem now confronting farmers is: How can horse labor be made more efficient? and how may one reduce the cost of keeping a farm horse?

A diversified system of farming will have a tendency to make horse labor more efficient. It distributes the labor throughout the entire year, and thus furnishes a more uniform amount of work. Instead of working the horses to the limit during the rush seasons of seeding and harvesting times, the farm will furnish an even amount of labor each day, thus reducing the cost per hour of horse labor.

Another means of reducing the cost of keeping the horses per year is to keep the brood mares on the

place. Brood mares may be bred each year, so as to have a crop of colts, and in that way the cost of keeping the horses on the farm will be distributed, part to work horses and part to breeding stock. Mares will perform the farm work as well as the geldings, and at the same time rear a colt that may be sold as a draft horse when matured for more money than it cost to produce him. It is also a good plan to dispose of horses that are growing old, and restock the farm from the crop of colts as they mature.

The horse that can be kept at work is not such a burden upon his owner. Four hours a day, the average length of time a horse works by the year in Minnesota, is not a high average from the point of view of the average Canadian farmer, but no doubt there are very many farms in Canada, especially those entirely devoted to grain farming or to some other special branch which requires horse labor only, upon which the horses are not worked longer hours than these for a short season of the year. Even with the best system of diversified farming, it is difficult to keep the horses at work for any great part of the winter months. Long winters, with high-priced feed, are the times when the expense of keeping horses mounts. Right here is where Mr. Tomhave's second suggestion for reducing the cost comes in. If mares are kept in place of geldings, and are bred regularly, the cost of upkeep of the farm horses is lessened. While often not engaged in actual work, the mare which raises a colt each year is producing something of value to her owner. Raising colts pays very well during her idle days. These two methods of keeping down the cost of maintaining the farm horses are well worthy of consideration.

The King's Plate.

On a heavy track, before a crowd of upwards of 15,000 people, Heresy, a little brown gelding from the Brookdale stable, owned by the Messrs. Dymont, won the fifty-third King's Plate. This makes the third time the Plate has gone to this stable. It will be remembered that, in 1904, Sapper, the Dymont entry, won the guineas easily, while one year earlier this stable did still better, winning with Thessalon and taking second place with Nesto. Heresy is described as a "little brown bulldog," and is the product of a mare purchased by the late Nathaniel Dymont four years ago in Kentucky. He was sired by Sain, an imported horse, and is out of a mare called Hera. On his dam's side, he shows a double cross of Bonnie Scot blood, and traces to Galopin, Thormanby and other excellent blood on his sire's side. Second in the race was Chas. Crew's Amberite, and J. E. Seagram's Rustling was third.

Administering Medicines to Animals.

The art of administering medicines to animals, without endangering the life of the patient, is not as simple a matter as many think. This is especially the case when the medicine is in a fluid state and given by the mouth. A very common reason why better results are not obtained from attempted administration of medicines by those who are careless or don't understand the art, is the fact that a large percentage of the medicines is wasted.

There are many methods of administering medicines, some of which require special instruments, and are, or should be, practiced only by veterinarians or others who have had special instructions, as the hypodermic injection, which consists in injecting a solution of the active principle of the drug or drugs just under the skin; the intravenous injection, which consists in injecting the solution directly into the blood stream in a vein; the intra-tracheal, which means injecting the solution into the wind-pipe. The actions of medicines administered as above are more reliable and more quickly established than when given by the mouth, but special instruments are required; and, in order to avoid complications, great care must be exercised in keeping the instruments thoroughly sterilized, diluting the drug with distilled or absolutely pure water, and also sterilizing the seat of injection, hence should be practiced only by those who understand the necessity of cleanliness, and are also conversant with the actions of drugs, as the dose given this way is only about one-sixth, or less than that, given by the mouth; and an overdose would give serious results, while an underdose would have little action. Other methods of administering medicines to horses are in powders, balls, drenches, and the introduction of fluids into the mouth by the use of a syringe.

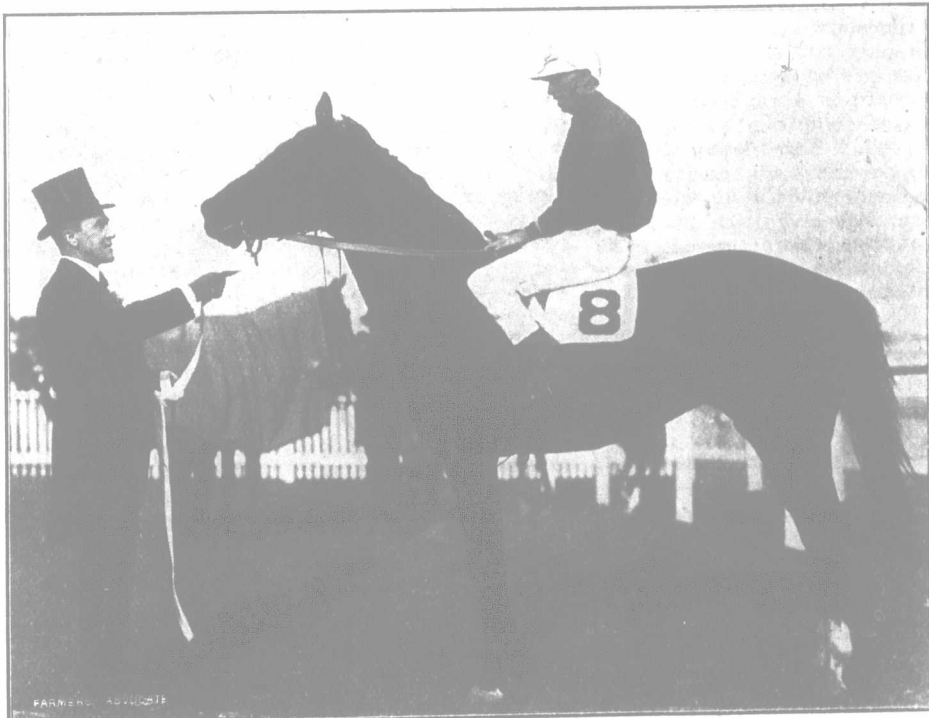
Powders are given either in damp food, in drinking water, placed on the tongue out of a spoon, or mixed with water and given as a drench. The most convenient method of giving powders is by mixing them with the food, but when the patient's appetite is not good, or the drugs taste nasty, other methods must be

adopted. When the drug to be administered is in small quantities, and dissolves readily, a very safe and convenient method is to place it in a dry spoon, catch the patient's tongue with the left hand, get an assistant to hold the head steady, with the right hand pass the spoon well back into the mouth and upset it, when the drug falls on the root of the tongue, is quickly dissolved by the saliva, and then swallowed. Of course, when the quantity is large or the drug does not readily dissolve, this plan is not satisfactory, as the patient will often drop more or less of it out of his mouth, in which case it must be either placed in a capsule or wrapped in tissue paper and given as a ball, or mixed with water and given as a drench.

The administration of medicines in the form of a ball is much practiced, but requires some skill on the part of the operator. The drug or drugs to be given in this way are first reduced to powder, and then either placed in a gelatin capsule or moistened with water, treacle, glycerine or other moistening substance, rolled into a bolus about three-quarters of an inch in diameter and two inches long, and wrapped in tissue paper. When administering a ball, it is well to get an assistant to steady the patient's head and prevent him from holding it too high. The ball should be moistened with oil or other lubricant, the operator takes the patient's tongue with the left hand and holds it out, with the mouth at the right side; he grasps the ball with the points of the fingers and thumb of the right hand, passes the hand back in the center of the mouth (being careful that the workings of the tongue do not carry it between the molar teeth), and drops it into the pharynx, just behind the root of the tongue. The horse will now swallow it, or, in rare cases, give a

cavity or box called the pharynx behind the root of the tongue. On the posterior wall of this box are two openings; the lower one leads to the trachea or windpipe, and is guarded by a cartilaginous valve called the epiglottis; above this is the opening into the gullet. During the passage of fluids or solids from the pharynx to the gullet, this valve closes and prevents the entrance of anything into the trachea, but when air enters the trachea or is expelled from it, the valve must open. When a patient's head is elevated for the purpose of administering a drench, and large quantities of fluid are poured into the mouth, it is not uncommon for a greater or less quantity to pass down the trachea (to the bronchial tubes and cause more or less serious trouble, according to the nature of the fluid and the quantity thereof. This unfortunate occurrence results from different causes. If from any cause the fluid is not swallowed promptly, the pharynx becomes full, hence the epiglottis becomes covered, the patient is forced to expire, and the expulsion of air from the lungs forces the valve open, and a greater or less quantity of fluid passes into the trachea. Then, again, there may be soreness of the throat, or paralysis of the muscles of the throat, or mere stubbornness on the part of the animal, or the fluid may be introduced in such large quantities that the animal cannot swallow it fast enough. From whatever cause, the results are the same. If sufficient quantities pass down the windpipe to fill the bronchial tubes, the horse will suffer and perspire freely for a few minutes, and die of suffocation. If a smaller quantity pass, it will set up mechanical bronchitis, which usually proves fatal, notwithstanding treatment; if a very small quantity pass, it will cause some distress, but become absorbed, and no serious results will follow.

In drenching an animal, the operator must be careful to observe whether he is swallowing readily, and if not, he must introduce very little liquid until he does swallow. If he refuses to swallow, the roof of the mouth should be rubbed with the neck of the bottle, which will usually cause him to champ his jaws and swallow, when a little more fluid should be introduced, etc. Under no circumstances should animals whose throats are sore or partially or completely paralyzed be drenched. Even a small quantity of fluid entering the larynx (the commencement of the trachea) will cause the patient



Heresy.

Winner of the fifty-third King's Plate. A. E. Dymont, one of his owners, standing in front.

short, quick cough and expel it intact, in which case another attempt is made to administer it. It requires some practice to enable a man to administer a ball without danger of it getting between the molar teeth, when it will be chewed, and most of it expelled. There is also danger of the hand being forced between the molars, when the patient will close the teeth upon it; but if the tongue be held firmly with the right hand, he will not be able to grasp very firmly, because his own tongue is between the molars on the other side. In such a case, if the operator should draw his hand forcibly out of the horse's mouth, he will receive painful wounds, but if he holds his hand steady, and with the left hand still holding the tongue endeavors to get the horse to relax pressure, he will succeed in liberating the right hand with no injury except a few indentations made by the teeth. There are small and inexpensive instruments called balling guns, made for this purpose, and it would probably be wise for amateurs to use one.

Drenches are medicines in fluid form, poured into the horse's mouth out of a bottle or drenching horn. In order that any animal may be given a drench, it is necessary to keep the head elevated to such an extent that the mouth is on a considerably higher level than the throat, in order that the fluid may gravitate backwards and downwards and reach the pharynx (a cavity just behind the root of the tongue). This is a very common method of administering medicines, and a very satisfactory method when intelligently performed; but, in order to avoid too great waste and danger of the animal's life, it must be carefully and intelligently done. As stated, there is a

method of administering fluids to horses, when the quantity is not too great is by a syringe. One that holds about two ounces is generally used. The syringe is filled with the fluid, the patient's tongue is grasped with the left hand, the syringe introduced well back into the mouth with the right hand, and the liquid forced out into the pharynx, when the tongue must be immediately released. Of course, when necessary, several syringefuls can be given. This is a safe method in giving fluids, even in case of soreness of the throat. Some people recommend drenching an animal through the nostrils, but this is very dangerous, and should never be attempted.

To cattle, medicines are given either as powders, mixed with damp food, or in liquid form; balls cannot readily be administered. Drenching is the favorite way, and is not nearly as difficult as with the horse. The operator catches the nostrils with thumb and forefinger of the left hand, and, if an assistant be present, he stands on the left side (the operator, of course, on the right), and catches the horns, or, in their absence, the ears. The head is elevated to the proper angle, the neck of the bottle introduced into the right side of the mouth, and worked against its roof until the patient commences to work his jaws, when the fluid can usually be allowed to run freely; but if the patient holds his jaws quietly,

fluid must not be allowed to run, else the trouble already described will follow. When, from any reason the animal cannot or will not swallow, a gag should be placed in his mouth, a rubber hose 5 to 6 feet long passed down the gullet to the stomach, a funnel inserted into the exposed end, and the liquid poured into it.

To sheep, medicines are given the same as to cattle, but greater care must be taken to avoid suffocation, as they do not usually swallow readily. They are more easily controlled than the larger animals, hence it is not so hard to observe precautions. When a rubber tube is used, of course, it must be quite small.

Pigs are doubtless the hardest of any of the domesticated animals to drench. It is necessary to introduce a rope with a slip-knot into the mouth, behind the tusks, to hold the head up. It is almost impossible to prevent squealing, and, of course, when the patient squeals, the epiglottis must open, and if the fluid be introduced into the pharynx it will pass into the trachea and cause the disastrous results noted. The most successful method of drenching pigs is to attach five or six inches of rubber hose to the neck of the bottle, hold the head up, and introduce the hose into the mouth. This attracts his attention, and usually checks squealing, and he will chew and suck the hose, draw the liquid from the bottle and swallow it. When rubber hose is not at hand, leather or canvas may be used instead, but it requires great patience and care to administer a drench safely by using a bottle, without some attachment to serve the purpose noted. "WHIP."

Rearing Foals.

"She looks like a non-breeder." How often is this observation made of mares of the finest type, in the pink of condition, and which appear at all times ready for the show-ring! And how often is the observation only too true. Not that the better types of mare are universally non or shy breeders, but that there is a tendency for a larger percentage of them to prove so than of the common or scrub stock. The reason is that the breeders, in working toward a higher standard in the respective breeds, have put strong emphasis on quality, conformation, size and other features, but have neglected that one character that is transmitted from generation to generation possibly more strongly than any other—the power of reproduction.

The reason this has been neglected is plain. Some breeder has an exceptionally fine mare, but she is a shy breeder. However, she is given every care, and through such care, perhaps, during her lifetime, gives birth to two or three foals. These, by the same care, are raised to maturity, to perpetuate a line of shy breeders of a very fine type among the females, and a line of stallions getting a low percentage of foals. To aggravate this condition among the better class of horses, many of them are pampered and kept in such high fit by their misguided owners that what otherwise might prove fair breeders are turned into shy or non-breeders—all due to the false view that special care is necessary for highly-bred stock.

On the other hand, what a pleasure it is to locate a farm—and there are many of them—where one can go into the field and pick out mares with foals by their sides that have a long line of progeny, some still in the field, some at work on the farm, and others, they will tell you, that have brought top prices on the market. These mares have not the style or finish of the fore-mentioned type, but their offspring show that had the farmer not had the clearer view of the breeder, he, too, might have shown you in a box stall the highly-finished show mare, but without the foal, and unconsciously been making a good start toward another line of shy breeders.

The difference between the two systems is that the one is highly artificial and showy, while the other is near to the natural, and nature always intended that a healthy offspring should be given birth at regular periods. For this reason, under natural surroundings, the survival of the fittest means that the non-breeder is crowded out. For the same reason, among scrub or common stock, where a shy breeder is not given special care and none are kept in high fit, the kind is perpetuated only from the most prolific breeders, and non-breeders are seldom seen.

The keeping of breeding stock under nearly natural conditions, where exercise of some sort is given regularly, and a certain amount of roughing is done, has a twofold result. It keeps the mare in such strong breeding condition that she almost invariably gives birth to strong foals, which, from the day they are born, are apparently proof against all illness. In the other stable, under the most comfortable surroundings, and, one might add, artificial conditions, it seems necessary to be in constant touch with a veterinarian, and the occasional foal, weak at birth, is apparently the special prey of every germ known to colt life.

The greatest enemy of the farmer with breeding stock is excess fat, and to the farmer who can see

beauty and type in the mare, without this superfluous finish, the art of breeding should come comparatively easy. True, he must keep his stables free from mares that have in their blood non-breeding tendencies, as well as the stallion of like character, and thus do his share to eliminate the non-breeder from the better class of horses.

The production of a strong foal is the harder part in the production of high-class horses. The rearing of a strong foal, that, to give it a good start in life, has a dam, not overworked, which gives a bountiful supply of milk, and that can run in a rich pasture for the first season, is to the farmer and breeder easy. What he has difficulty in producing is strong foals from dams and sires of the right type.—[Farmer's Advocate and Home Journal, Winnipeg, Man.]

LIVE STOCK.

Our Scottish Letter.

The weeks that have passed since I last wrote have witnessed the death of Andrew Montgomery, the senior of the firm of Messrs. A. & W. Montgomery, with which all Clydesdale breeders throughout the world are familiar. Mr. Montgomery had many friends in Canada, to which he was a frequent visitor during the past twenty-five years. His first trip was made in the old Dominion liner, Texas, and a very rough voyage he had. He made many trips in the favorite White Star liner, Germanic, which I believe is now in the St. Lawrence trade under a new name; and it is nearly ten years since he and the late James Biggar, who predeceased him by several years, made a winter trip in the Celtic, then the biggest ship afloat, although now not such a nine-days' wonder. Her commander then was the now world-known Captain Haddock, who sent the fatal message from the Olympic concerning the awful tragedy of the Titanic. Mr. Montgomery had a serious attack of illness when in Canada on that occasion, and that may be said to have been the beginning of the end. He was never quite as fit afterwards as he had been before, and about six years ago he was seriously ill, and for the best part of three years did little active work. During the past three years he visibly improved, and a few days before his death he was feeling well, and was travelling about a good deal in connection with the business of his firm. He died early on the morning of 22nd April, in his 64th year.

I need not describe Mr. Montgomery for the benefit of Canadian readers. He was very well known to many on your side, and his firm did an extensive business with buyers from all parts of the Dominion. Those who knew him well greatly appreciated his qualities. He was a consummate judge of stock and specialist in Clydesdales, but he was even more expert as a judge of men. He could read a man through and through, and was painfully impatient of mere talkers, unless, indeed, they might be tolerated for business purposes. The heavy end of the business of the firm for the past half a dozen years has fallen to William Montgomery, who now becomes the senior partner. Andrew Montgomery's only son, Andrew Mitchell Montgomery, is taking a good grip of the business, and has shown himself to be a competent judge alike of Clydesdales and of Border Leicester sheep, of which latter he has a select flock.

The older generation of Canadian Clydesdale men may perhaps remember another Galloway breeder, James S. F. Routledge, Port William. He passed away very suddenly about a week before Mr. Montgomery. In the days of the early Clydesdale boom—that is, in the decade from 1880-1890, Mr. Routledge was a faithful pilot to visitors who went down to what is called the "laigh country," that is, the lower district of Wigtownshire and the Machars. He was a native of the locality, and knew his way about, with the result that many were indebted to him for guidance as to places where Clydesdale colts were to be bought. Mr. Routledge, like Andrew Montgomery, was a keen patron of the Galloways. He bred them until the last, and never surrendered to the Ayrshire invasion—the supplanting of the native beef breed by the invincible dairy breed. This supplanting is a notable feature of the agriculture of Galloway during the past half century. Not many Galloway herds now remain, where once they held undisputed sway.

THE SHOW AT AYR.

Mention of the Ayrshire suggests that the past three weeks have been the crowning days of their exhibition. The dairy breed has its great outings in April and May, but chiefly in the former month. At the shows held at Kilmarnock and Ayr the breed is seen at its best. It is seldom the tops at these shows have to lower their colors at any subsequent event. The great competition is what is called the Ayrshire Derby, in which three-year-old queys which were entered for the competition when calves face each other, and the champion female is not infrequently found in the leader of the

Derby. This year the same quey won both at Kilmarnock and Ayr. If the present type were to be judged by her, it might not be easy to make out a case for improvement along lines of utility as opposed to mere fancy. Laigh Langside Strawberry is a well-colored, stout quey, with a well-laid vessel and serviceable teats, but there were many queys after her in both the Kilmarnock and Ayr Derbys for which a dairy farmer would give more money and expect a bigger return. All the same, she is a great improvement on the "fancy" animal so long bred and shown in what were called the Ayrshire "milk" classes, and the influence of the Milk Record movement was clearly seen in the high commercial value of the general run of the exhibits at these two great shows of dairy cattle. How rapidly the sentiment in favor of milk records has developed is evidenced by the fact that, while, in 1902, when the scheme was inaugurated, only something over 1,300 cows were under review, in 1911 there were no fewer than 13,250, or thereby—an increase of ten times in as many years. The founder of the scheme, John Speir, has passed away, but his work remains—a splendid monument to his labors and foresight. He was the ablest all-round agriculturist the West of Scotland ever produced. He never did a more substantial piece of work than the establishing of the Milk Record scheme. His loss so far has been irreparable.

As a rural event, the show at Ayr, which invariably opens on the last Tuesday of April, stands unrivalled. It is the best all-round show of West-country stock we know, and the best-attended of all the Scottish shows. Its patrons are bucolic to a degree, and, as a scene for the study of the rural mind, it stands peerless. Clydesdales are always well represented at Kilmarnock and Ayr, and this season's event was fully up to the mark. The younger classes, especially the yearlings of both sexes, and the two-year-old fillies, were exceptionally high-class. Several new sires are forging their way to the front. Those which made the best appearance at Kilmarnock were Apukwa, Revelanta and Diana's Prince. The first and third are sons of Hiawatha, out of mares of Baron's Pride breeding, and the second is one of the best of Baron's Pride's sons. The old horse himself made quite a good appearance, his yearling colts being quite the best of the season so far, and the champion at Kilmarnock, Harviestown Phyllis, is out of his daughter, and got by Royal Favorite 10630. She is own sister to the Cawdor Cup champion of this year, Scotland Yet. The champion stallion at Kilmarnock, and he would likely have repeated the performance at Ayr had there been a trophy, was W. Dunlop's two-year-old stallion, The Dunure, a wonderfully well-balanced colt. He was got by the famed Baron of Buchlyvie, out of a capital specimen of Clydesdale draft mare. Another very notable feature of the Ayr show was the display of Black-face sheep. Here, also, there is a Derby; it is for shearing tups which have to be entered when they are lambs. The competition was very keen, and the final tussle lay between the neighboring flocks of Glenbuck and Crogsflatt. The former is in the occupancy of the owner, Charles Howatson, and he is also the owner of Crogsflatt, the occupier of which is James Clark. The latter scored, carrying off the first prize, and Mr. Howatson had the second. Another splendid display of Black face sheep was seen at Dumbarton on Saturday, May 4th. There are many keen competitors in that country, and it is this that makes for improvement of the breed.

THE ROYAL DUBLIN SHOW.

A visit to Ireland these days is an education. The Royal Dublin Spring Show took place in the same week as the Kilmarnock event. Of course, Ayrshires do not count there. The Shorthorn is first among cattle breeds, with the Aberdeen-Angus a very bad second, and the Hereford a close third. The popularity of the Shorthorn is due to its dual-purpose merits. If there is such a thing in the world as a dual-purpose breed, the Shorthorn alone fills the bill. Irish Shorthorns are rapidly improving, and at the sale, which took place on the second day of the event, prices not often realized were made. Viscount de Vesci, a long-time breeder, took first place with a yearling named Leix President, which sold at 400 gs., and others made 200 gs., 165 gs., 135 gs., 120 gs., 105 gs., and 100 gs. Figures such as these have not been wont to be quoted at Irish sales, and naturally, the Shorthorn breeders of the Island feel pleased. Rightly or wrongly, all classes represented at the show seem to be in a state of nervous anxiety over the issue of the Home Rule policy. It is not easy for the outsider to appreciate the feelings of dismay with which the Irish Protestant farmer, as a rule, contemplates what is before him. This is not the place in which to enter on a discussion of the question, but I may be permitted to say that all arguments based on Canadian experiences appear inept to the man whom I have named, and that for the simple reason that he finds himself in a hopeless minority. But I may not go further along this line.

THE LAND COURT.

Changes are going on rapidly, and the new Scottish Land Court has begun operations. Hitherto, the Crofting districts of the Highlands have had experience of something of the kind, but to the rest of Scotland a Land Court is a distinct novelty. The members of the Court are Lord Kennedy, the president, who has the status of one of the judges in the Supreme Court; Colonel R. F. Dudgeon, of Cargin, a Stewarty land-owner; Alexander Dewar, who was for many years factor at Fosque, Kincardineshire; E. C. Morrison, M. A., a Fifeshire farmer; and Norman Reid, New Kelso, Lochcarron, a large sheep farmer in the Northern Highlands. The business of the Land Court is to settle disputes between landlord and tenant arising out of questions of rent and the enlargement of holdings, but their powers do not extend to all holdings, but only to such as do not exceed 50 acres in extent, or £50 per annum of rent. The principle of a Land Court, however, admitted, it goes without saying that it is only a question of time when its powers will be extended and disputes respecting holdings of every size will come to be dealt with by it. Allied to the Land Court, and created by the same Act of Parliament, is the Board of Agriculture for Scotland. This institution consists of three members, who are Sir Robert P. Wright, formerly Principal of the West of Scotland Agricultural College; R. B. Greig, formerly Lecturer in Agriculture in the University of Aberdeen; and John D. Sutherland, a West Highland land agent. This body, so far, has done little else than create offices, and it will be some time before they will be able to prove that they have done anything to earn their salaries. The number of officials appointed is rather alarming, and a good deal of the work they are apparently to do is already being done by officials in London, whose work will be duplicated, while their salaries will run on. A number of men have been appointed under the Board who are to endeavor to stay the tide of rural emigration and depopulation. This is a big job, but it is worth attempting. Mr. Sutherland is to endeavor to create Small Holdings, and another official is meantime to endeavor to get existing small-holders to produce more poultry and eggs, and so demonstrate that small holdings are economically sound propositions. That their multiplication is good for the State is undoubted, and it is worth a big effort to prove them economically sound and profitable.

Other changes are taking place. James Macdonald, who has held office as Secretary of the Highland and Agricultural Society for twenty years, has, on account of ill-health, been compelled to resign. His successor has now been appointed. He is John Stirton, a solicitor, son of a Perthshire farmer, with wide connections among other farmers in Perthshire and Ross-shire. At present he holds several administrative offices in connection with the University of Edinburgh, and has the reputation of being a first-class secretary. Apart from his upbringing on a farm, he has had no connection with agriculture, but he has been a diligent student, and has attended university and technical school classes, fitted to qualify him for the duties which will now lie to his hand. He enters on his duties in November next. Meantime the secretarial duties are being performed by John Macdiarmid, who has been the chief clerk in the office of the Highland and Agricultural Society for something like forty years. He, too, is a Perthshire man, who retired from active duty in November last, but was prevailed on to accept the interim charge of affairs consequent on Mr. Macdonald's breakdown in October last.

Another personal item concerns a gentleman who has visited Canada and the States, and acted as sole judge of fat cattle alike at Chicago and Guelph. This is W. S. Ferguson, Pictstonhill, Perth. He has also acted as sole judge of cattle at the Buenos Ayres exposition. Mr. Ferguson is a man of great energy and a leader of agricultural opinion. He is a first-rate judge of Aberdeen-Angus cattle and Border-Leicester sheep, but he also can judge to excellent purpose among fat stock of every kind. He has filled many public offices, and all of them to good purpose. His services were acknowledged a week ago to-day in Perth, when he was presented with his portrait, painted by a leading artist. "Pictstonhill," as he is popularly termed, has been a useful member of society, has played the game, and done his best to further the general agricultural interest. He has been a great traveller, and has seen more of the world than usually falls to the lot of the Scottish farmer.

Wool Prices Advance in England.

Col. D. McCrae, of Guelph, who is connected with the Canadian Government in the furtherance of the sheep industry in Canada, informs us that there has been a decided advance in the price of wool in the Old Land. The advance is a very material one, being about 15 per cent. This would mean a like advance in Canada, and wool-holding farms should not be left in the lurch.

Canadian Farmers Are Losing More than \$1,720,000 on Wool Annually.

It must be distinctly understood that the loss of \$1,720,000 arises from two causes only: First, want of knowledge in producing wool properly and handling it correctly. Second, want of the right kind of organization for marketing it profitably. There are also indirect losses arising from other causes, but I will confine myself to the loss arising solely from the two causes just mentioned.

I am estimating this loss on information gathered during the latter half of the year 1910 and the first half of last year. Unless immediate action is taken, the loss this year will be considerably greater. This is very regrettable, indeed, when other countries are looking forward to a substantial advance in prices and the best wool season they have had for several years.

Probably the question now present in the mind of the reader is how I arrive at this estimate. We must first remember that, with a few isolated exceptions, Canadian wool is grown and handled in a very indifferent way, delivered in a most unsatisfactory condition generally, and sold without any of the advantages of a properly-organized system of marketing. The result of this lack of information and entire absence of organization is a great variety of unremunerative prices. It very often happens that, when Ontario farmers get an average price of fifteen or sixteen cents for their wool, other parts of the Dominion are only getting seven, ten and twelve cents. In some parts of Western Canada wool was sold last year at twelve cents a pound, quite equal to some New Zealand wools sold on the English market for twenty-nine cents. There are other cases where Western wool was sold last year for fourteen cents, which, if properly classed and marketed, would have averaged thirty-one cents. In making such statements, I am not blaming the manufacturers, because they are giving quite as much as they can afford under existing conditions; neither do I directly blame the much-abused "middlemen," because they are not all bad, and the few who are somewhat unreasonable in their transactions are merely the outcome of a bad system of marketing and the insufficient information possessed by farmers.

Without going into further details, and leaving artificial prices and exceptional cases out of the question, I consider that the average loss to Canadian sheep farmers from the two causes mentioned is at least ten cents on every pound of wool grown in the Dominion. Although a very conservative estimate, it represents the difference between the average Canadian price and the average prices realized by British, Australasian and Argentine farmers for similar wools on the English markets. I have made full allowance for freight and selling expenses. The difference is that the wools of other countries are packed in the right condition and sold in splendidly organized markets, while Canadian wools are mostly put up in the wrong condition, and sold without any marketing organization whatever.

Now, for the total amount. Canada produces over fourteen millions of pounds of wool annually. A loss of 10 cents a pound on 14,000,000 pounds amounts to \$1,400,000. There is also serious loss resulting from faults in growing wool, but I will only call attention to one feature of this loss. Other countries dip their sheep twice a year, and they are confident that the difference in the weight of a fleece dipped twice and not dipped at all is from one and a half to three pounds, in addition to the improved quality of the wool and other advantages. In Canada, dipping is only practiced by breeders of pure-bred sheep, and ordinary commercial flocks are seldom or never dipped. Taking the lowest estimated loss in weight from this neglect alone, it would amount to three million pounds, but I will deduct one million, and thereby make ample allowance for the pure-bred flocks. This still leaves two-million pounds. I will not reckon this at 25 cents a pound, but at the average Ontario price last year—16 cents—and this will amount to \$320,000. Add that to the difference in price, and we have a total loss of \$1,720,000 annually on the wool of our present sheep population. Again I repeat that this loss arises from two causes only, without taking any direct losses into consideration. These two causes will have to be remedied before this heavy loss can be overcome. No artificial remedy will really make up for this loss, unless we get up our wool properly and possess the right organization for selling it. Some farmers have various theories for increasing the price of domestic wool, but supposing all these theories would eventually be beneficial when put in practice, I can assure such farmers that their well-meant theories will be ineffectual until we have first found a remedy for the two causes I have mentioned. We cannot correct such serious faults and overcome a long-standing loss without going to the root of the

matter and reconstructing our wool-growing industry on a fresh foundation. The Sheep Commission went to the root of the matter, and also suggested the remedy. What is now required is immediate action.

The question now arises, "How soon can we overcome the loss I have pointed out?" Personally, I am confident that half this loss could be overcome by July next year, and the remainder wiped out by August of the following year. The number of sheep would naturally increase in the meantime, so that our farmers would receive fully two millions of dollars more for their wool in 1914 than they are doing at present. It is still possible to wipe out a great deal of this loss before September this year, providing immediate action is taken.

The loss to some of our farmers who are taking great interest in their work, and practicing fairly good methods considering the small amount of information and encouragement they get, is not only serious, but exasperating. I drove over a ranch near Irvine, Alberta, last month, where ten thousand sheep have been wintered in good condition. Having carefully examined this flock, I think they will yield an average fleece of nearly eight pounds. A difference of ten cents a pound on eighty thousand pounds of wool means a loss to this man alone of \$8,000. The cross-breeding methods of this sheepman are not seriously at fault, like those of some of his neighbors, so that a season's preparation and a well-managed shipment would make the difference I have stated. This is the largest sheep ranch in Canada to-day, yet it is only carrying half the number of ewes it did two years ago. The smallest ranch I visited in Alberta had only two hundred and fifty ewes. This was situated away up in the Pembina district, sixty miles north of Edmonton. It was owned by a new settler possessing excellent experience in sheep-farming, both in Scotland and the Western States. He was using pure-bred Shropshire rams on very superior cross-bred Merino ewes, with the intention of grading up to mutton sheep. His wool was of excellent quality and properly handled, because he not only knows how to grade his wool, but takes a pride in doing everything well. Last year he hauled his entire clip with an ox team over sixty-two miles of heavy trail to Edmonton, and sold it to a dealer there for ten cents a pound. His wool was then worth 32 cents in London. His neighbors keep small flocks of mongrel sheep, pack their wool in wretched condition, and get the same price. Although this man was making more money out of his sheep alone than any of his neighbors were making out of all their operations, I found him so disheartened that he felt inclined to sell out and leave the country. For want of a well-organized system of marketing, our best wool-growers get no encouragement for getting up their product in first-class condition.

Wool is only a by-product to the mutton sheep farmer, but it is the major portion of the ranch sheepman's investment, because his wool is worth more and his mutton is worth less. Then he shears five or six times and only kills once. I am quite aware that the mixed farmer estimates the value of his wool out of all proportion to the value of his mutton, still we cannot get rid of the fact that none of our farmers can be induced to take more interest in sheep-raising unless we establish an organization that will enable them to secure higher prices for their wool.

Our farmers have long had every reason to feel dissatisfied with the unremunerative prices they have generally received for their wool. They will continue dissatisfied until prices are more on a level with other countries where wool-growing is a profitable occupation. I am, therefore, quite convinced that it will be a useless waste of valuable time to continue persuading sheepmen to increase their flocks, without providing them with an organization through which they can obtain full market value for their wool.

Although always aware of the absolute necessity for creating such an organization at the very commencement of reconstructing our wool-growing industry, I was at first inclined to think that it would be rather a difficult undertaking. During the past four months, however, I have devoted myself to a thorough investigation and a careful study of this vital subject, and I am now confident that it would be comparatively easy and inexpensive. I have no hesitation in stating that this important work could be accomplished in two years, providing we made an immediate beginning on right lines. Knowing what has already been accomplished under worse conditions in South Africa during the past two years by a broad-minded man with a world-wide experience, I can assure Canadian farmers that more progress could be made here, in the same time, with their hearty co-operation.

It is impossible to explain a somewhat intricate subject in a newspaper article, but I am prepared, at any moment, to satisfy a representative gathering of intelligent sheepmen on this urgent and important matter.

W. T. RITCHIE.

Foster Milking Qualities.

It will be remembered by those who were present at and those who read the reports of the last annual meeting of the Dominion Shorthorn Breeders' Association, that Peter White, the president of the Association, advised very strongly that breeders pay more attention to the milking qualities of their cattle. A few paragraphs from this speech will serve to stimulate interest in the milking Shorthorn:

"The beef-growing of the future must be done, it seems to me, on the farm, where mixed farming is practiced, both in the West and in the East, and this is where the good old Red, White and Roan will come into her own, for no other breed can do what the Shorthorn can do, namely, pay her way handsomely in the pail, raise a lusty calf that can be fed off at a good price, and she herself, when one of her daughters is able to fill her place in the herd better than she ever did, take on flesh rapidly when dry, and go to the block a good carcass, still making profit for her fortunate owner.

"This is the kind of Shorthorn we must produce if we are to take full advantage of the opportunities which the future has in store for the breeders of this grand breed of cattle.

"We must also have our minds fixed on the breeding of an average of general all-round excellence, rather than on the breeding of one phenomenal winner.

"Of course, we must expect the determined opposition of the breeders of special dairy cattle. We will not fail to hear that dairying is more profitable.

"Is it more profitable than the mixture of dairying and beef production? I doubt it. It has been more profitable than mere beef production because the dairyman has been able to obtain a higher price for his product relatively to the cost of production, due to his better organization, larger Government assistance, and to the fact that the public, owing to our conditions, have been able to obtain cheap beef produced on cheap land, but never cheap dairy products produced on cheap land."

After giving other advantages which in the past have worked in favor of the dairy business, Mr. White continued: "I doubt very seriously whether a pound of prime beef can be produced at a less cost than can a pound of butter, where all conditions as to land value, cost of labor, interest on investment, and every other element entering into the cost of production, are equal and considered, and yet no one seems to think it out of the way to pay 25 cents for a pound of butter, but 25 cents for a pound of choice porterhouse is simply preposterous.

"It seems to me to be a policy of wisdom to set our house in order now by paying a little more attention to the milking qualities of our cattle, and not being satisfied with beef form alone, I mean in the best ones, so that when the demand comes, as come it surely shall, we will be ready to reap the rich rewards that are undoubtedly our due."

What Silage Has Done and Can Do.

Silage must be put into the feeding programme of every beef producer who wants to fit steers for the market economically and efficiently. The animal husbandry section of the Iowa Experiment Station proved that in part a year ago in a thorough feeding test; it proved it fully this year in a second test completed only the other day. The animals fed on silage made cheaper gains, they lost less in shrinkage, and they returned greater profits than other animals in the test fed on clover hay as roughage. The silage-fed steers put on gains at a net cost that was \$2.01 per hundred pounds less than the clover-hay-fed steers, and the best lot of silage-fed steers made a profit of \$23.46 per animal, as against \$17.27 per animal for those fed with clover hay.

Fifty steers were fed in this test. They were not fancy steers when bought, but average animals from the Nebraska range. They were bought in from Nov. 23rd to April 21st, 1912. They cost, November last, and fed one hundred and fifty days, in Omaha, \$4.50, and in the Station feed-lots at Ames, \$4.65. They sold well, bringing from \$8.10 to \$8.20. These steers were divided into five lots of ten animals each, and put on separate rations, as follows:

Lot 1, shelled corn, cottonseed meal, clover hay; Lot 2, shelled corn, cottonseed meal, clover hay, corn silage; Lot 3, shelled corn, cottonseed meal, corn silage (the above lots were all put on full feed of grain in 40 days); Lot 4, shelled corn, cottonseed meal, corn silage; Lot 5, shelled corn, cottonseed meal, corn silage.

Lot 4 and Lot 5 were handled the same the last ninety days—silage fed heavily, and shelled corn increased to full feed in the twenty days, as follows: First month, 6.41 pounds daily; second month, 14.97 pounds; third, 14.97 pounds daily. Beginning on the 91st day, Lot 4 was allowed corn and silage according to appetite, while Lot 5 was held

back on silage and shoved hard on corn, the object being to make the ration concentrated at the end of the fattening period. Cottonseed meal was allowed in equal amounts of practically 2 1/2 pounds daily to Lots 2 and 5. Lot 1, because of clover, which contains protein, was fed somewhat less for best results.

All feeds were charged at actual market prices, as follows: Shelled corn, first month, 50 cents; second, 51 cents; third, 55 cents; fourth, 57 cents; and fifth, 65 cents. Cottonseed meal, \$28 a ton; clover hay, \$15 a ton; corn silage, \$3.20 a ton.

The silage cost is based upon the actual value of corn in field—8 cents below market—at time of siloing. Cost of filling silo, storage of silage, and depreciation on equipment, are included. This allows the farmer a field profit on the corn. The actual production cost on this silage would not exceed \$2.40 a ton.

All roughage was fed twice, according to the steer's appetite, excepting in Lot 5, last two months, where it was limited.

Hogs following cattle were valued at \$6.10 first three months, and \$7.50 last two.

The record of feed, gains, costs and profits follow in lots for the entire feeding period.

DETAILED STATEMENT OF RESULTS.
(Ten Two-year-old Steers in Each Lot.)

	Lot 1.	Lot 2.	Lot 3.	Lot 4.	Lot 5.
Initial weight	940.	943.	919.	920.6	922.8
Final weight	1,299.7	1,261.	1,261.3	1,246.	1,257.
Average daily gain	2.398	2.373	2.281	2.169	2.228
Average feed eaten per steer daily in lbs.:					
Shelled corn	20.20	16.95	15.60	13.71	14.64
Cottonseed meal	2.28	3.08	3.08	3.08	3.08
Clover hay	9.02	3.90			
Corn silage		22.35	27.10	30.81	28.62
Cost of 100 pounds gain, excluding hogs	\$12.63	\$11.77	\$10.65	\$10.74	\$10.72
Net cost of 100 lbs. gain on steers, deducting hog profits	10.83	9.62	9.10	9.08	8.81
Necessary selling price a 100 lbs. at Ames to break down even, excluding hogs	6.86	6.60	6.28	6.23	6.27
Including hog profits	6.36	6.01	5.86	5.80	5.75
Actual selling price* at Ames, deducting cost of shipment and shrink from Chicago values	7.69	7.72	7.61	7.60	7.62
Net profits on each steer	17.27	22.22	22.03	22.45	23.46
Pounds shrink per steer	34.7	21.0	31.3	32.0	29.0
Per cent. shrink	2.669	1.617	2.482	2.568	2.307

*Chicago values are: Lot 1, \$8.20; Lot 2, \$8.15; Lots 3, 4 and 5, \$8.10.

It will be remembered that last year the Iowa Station called attention to the indicated possibility of feeding silage heavily in the early part of the feeding period, decreasing as the animal became finished and quite fat, for the evident reason that the large amount of silage was not desirable in producing rapid and economical gains at the close of the feeding period. It is somewhat interesting to note that Lot 5, handled in this manner, heavy silage and light corn at the beginning, with light silage and heavy corn at the finish, returned the largest profit per head, or \$23.46. This in spite of the fact that corn increased to 57 cents and 65 cents, from 50, 51 and 55 cents during the first three months. In other words, everything was against this lot, because of the high price of corn, but in spite of this big handicap it won out by a narrow margin.

In making a change of this sort, as the animal becomes fattened, it is advisable to do it gradually, pushing heavily on the corn and coming back gradually upon the silage. The object is to concentrate the ration at the end of the fattening period.

Clover is an exceptionally good cattle roughage, but at present prices its use is quite prohibitive. Had the clover in this experiment been figured at \$10 per ton, instead of \$15, the net profits would have increased practically \$3.50, or actually \$3.58, or \$20.65. Even at this advance, it is readily seen that the silage at \$3.20 per ton is a more valuable feed than clover hay at \$10.

The value of silage for a short feeding period is again abundantly demonstrated in that cattle in Lot 3, on shelled corn, cottonseed meal and silage made an average gain the first three months of \$3.95, \$8.67, and \$15.17, per cwt., or an average cost of practically 7 1/2 cents. For a short feed, the experience of the Animal Husbandry Department has been that silage is a superior roughage.

It is gratifying to feeders of silage to know that the Iowa Station results again show that silage fed cattle are not heavy shrinkers. This year the all heat those having clover, as last year the least shrinkage occurred on those cattle fed both clover and clover hay.

The heavy shrink occurred on those cattle which received heavy silage and clover for roughage, being very fat and only 21 pounds. This is in accord with the experience of last year. That those which have never should have a heavy shrink is somewhat surprising, but the fact is that they themselves were very fat.

Silage fed cattle, shelled by hand, were found

and is fed with profit to these classes of animals. The feeder with the silo must not get the impression, however, that silage is a cure for all ills, but that it has its shortcomings as well as its longcomings. The dairyman has long since concluded that he cannot satisfactorily run a dairy herd without the silo, which furnishes, as nearly as human ingenuity has been able to figure out, pasture conditions in the winter time. The steer feeder is coming to feel that the silo is a valuable adjunct to his business, in evidence of which the rapid increase of the number of silos in the corn-belt States is unmistakable. Silage is a starchy food, however, and when fed must be supplemented with a protein feed, such as cold-pressed cottonseed cake, cottonseed meal or oil meal. At present prices we would recommend either the cold-pressed cake or the cottonseed meal. Another mistake which is usually made, in addition to feeding without supplement, is to assume that silage is a complete feed within itself, and use it as a sole feed in thinking that it will produce a marketable finish. It is necessary, in finishing animals, to add considerable concentrate, especially corn, in that it is the cheapest one we have, especially toward the finish of the feeding period. The truth of the matter is that, in finishing steers

and heifers or other cattle for the block, it is necessary and quite imperative that a concentrate grain be fed in considerable amounts throughout the feeding period. Cattle which are being stalked or roughed through the winter can get along nicely on corn silage and a little clover or alfalfa hay, thus fitting them well for grass and subsequent green feed; but, for the fattening animal, the grain must be added.

The most eloquent friends the silo has are those men who have fed silage. Certainly, no greater recommendation can be offered for any feed than this.
J. M. EVVARD.
W. J. KENNEDY.

What is Wrong with our Feeders?

On May 17th last a Toronto daily contained the statement that on that date a shipment of 315 head of Canadian cattle were to leave the Union Stock-yards, their destination being France. This is the first shipment of Canadian cattle to this country. It is said that Canadian cattle receive a preference in France, and are admitted alive. These cattle are stockers, and are to be fed in various parts of Normandy, their destination being Calais.

At the meeting of live-stock men at Ottawa, last February, delegates from every Province complained of a falling off in numbers of cattle; in fact, the decrease in some parts has of late been reaching alarming proportions. Meat of all kinds is scarce on our own land. Choice steers recently sold on Toronto market at \$8.00 per cwt., live weight, and good meat to the consumer commands very high prices. We have a country just as well suited to cattle-feeding as any under the sun, France not excluded, and we have just as capable men here to feed them, and, besides, our soil needs the fertilizer produced by these cattle. If cattle can be bought here and shipped to France to be fed, and feeders there can make a profit, it would seem as though a living profit could be made by finishing these cattle right here in Canada. The dealers handling the shipment claim that if it is a success, a very lucrative trade will be established. Larger markets are what helps the producer, but in the cattle business the finished product should be the only class of stock to export out of our country.

Abundance of sweet pasture grass is one of the greatest helps towards fencing against stock. Let the farmer take the place of the top wires or top rails of the fences. Remember, however, that sweet grass tends to spoil stock quicker than poor grass and poor fences.

THE FARM.

The Chinch Bug Winters in Ontario.

Editor "The Farmer's Advocate":

A serious outbreak of chinch bugs in the County of Middlesex was reported through the columns of "The Farmer's Advocate" last fall (November 16th issue), and readers were asked to keep a sharp lookout for any appearance of the pest this spring. In some parts of the Township of West Nissouri they are as numerous now as last fall, having passed the winter in perfect condition. This is positive proof that our winters are not sufficient barrier to the chinch bug, as the past winter was one of the most severe in our history. Some of our most injurious insects have made inroads while we, knowing the extent of their ravages in other countries, sat idly by, fully satisfied that our hard Canadian winters would exterminate them; but they have become climatized, and are now as alarming here as in their native clime (the San Jose scale, for instance). The chinch bug has cost the United States more than any other insect which they have had to combat, being in the neighborhood of \$6,000,000 annually for the past sixty years. A circular issued by the Bureau of Entomology of the United States Department of Agriculture says that "Few insects have caused such enormous pecuniary losses as has the chinch bug. No other insect native to the Western Hemisphere has spread its devastating hordes over a wider area of country, with more fatal effects to the staple grains of North America than has this one."

There have been no enormous losses in Canada as yet, but should this insect become general throughout the Dominion, the loss to farmers would run into millions of dollars, so now is the time to look after this nuisance, while it is confined to limited areas. It is, therefore, important that farmers of Ontario, and of the County of Middlesex, in particular, should have some knowledge of the significance of this pest, its life-history, and means of prevention and control.

C. Gordon Howitt, D. Sc., Dominion Entomologist, Ottawa, in Census and Statistics Monthly, states that the first record we have of its occurrence in Canada is in 1866, when it was found near Grimsby, Ont. Since then it has been found in Cape Breton, N. S., and also at Winnipeg, Man. In 1908 it was generally injurious to late oats in Welland County, Ont., and during the past year (August, 1911) it has been reported in abundance in meadows in Middlesex County. It is probably generally distributed from Lakes Huron and Erie, eastward to the Atlantic coast.

He also, in the same report (Sept., 1911), gives the life-history and preventive and remedial measures, which, if it is not taking too much space, would give your readers much valuable information regarding the chinch bug.

Life-history.—The adult chinch bug measures one-fifth of an inch or less in length; it is blackish in color, with white upper wings each bearing a conspicuous black spot. The winter is passed in the adult stage under rubbish of all kinds, fallen leaves, stubble, grass and brushwood. In the spring the females deposit their eggs on or near the surface of the ground, either among the roots of cereals or grass, or in the leaf-sheaths of plants. Each female may deposit upwards of five hundred eggs, which hatch in two or three weeks. The young larvæ are yellowish in color, but soon become red, and later a bright vermilion. They are similar in shape to the adults, but are wingless. The principal injury is apparent in August and September. The insect inflicts the most damage on wheat, barley, corn, rye and oats; it also seriously infests timothy meadows, as in the case of the present outbreak. In addition, it attacks various grasses, especially fox-tail and pigeon grass (*S. glauca*) and barnyard grass (*E. crusgalli*).

Preventive and Remedial Measures.—The best method of prevention, as in the case of numerous insect pests, is clean cultivation and cleanliness about the farm. By clearing away and burning rubbish, brushwood, etc., cleaning up fences, and in other ways destroying the hibernating places of not only these but other injurious insects, most valuable work can be accomplished. Where timothy meadows or pastures are attacked, as in the present instance in Middlesex County, remedial measures are difficult to apply, owing to the extent of the area now permanently laid down. Burning them over during the winter will do some good, but many of the hibernating bugs will escape. The chinch bugs may become a serious factor in Ontario, owing to the large areas now laid down to permanent pasture, which fact has been shown previously to be responsible largely for the increase of white grub. The remedy is to change the agricultural methods and adopt a rotation system, wherever the pest is serious. If timothy is fall plowed, and the land well cultivated, a root crop may be sown the following

year, and this will not be attacked by any adults which survive. It has been found that the chinch bug can be prevented from timothy meadows by rotation with corn.

When the bugs are migrating from timothy to wheat or corn, their advance may be prevented by several methods. If they have already reached the outer rows of the corn, they may be checked by spraying these rows thoroughly with kerosene emulsion or tobacco decoction, and steps may be taken to prevent further invasion. A deep furrow should be plowed along the edge of the crop which the bugs are invading. The landside of the plow must be toward the crop which is being protected. At intervals of about thirty to fifty feet, post-holes of a depth of one foot or eighteen inches should be sunk, and the bottom of the furrow may be made smooth by dragging a plank along it. A line of coal tar is now run along the upper edge of the furrow. When the bugs reach the tar line, they walk along it till they reach the post-holes, in which they collect in large numbers; they should then be destroyed daily by means of kerosene or crude petroleum. This plan may be modified. In some cases a smooth path, about a foot in width, is made, instead of a furrow; this can be done by dragging a heavy log and compacting the soil. A train of coal tar is then run along the middle of the smooth path, and post-holes are sunk at intervals. The bugs reach the tar barrier, and pass along it to fall into the holes. In dry weather the tar becomes covered with dust, and must be renewed. Dr. Forbes, State Entomologist, of Illinois, has found that a line of road oil is in many ways preferable to coal tar, being more lasting, thicker, and less volatile. The two may be used together. These and similar methods have been found practicable on a large scale, and the expense is comparatively small. Where the bugs are breeding in wheat fields or meadows, every effort should be made to eliminate them.



Broadcasting Ground Limestone with the Manure Spreader.

Natural factors may play a considerable part in determining the abundance or scarcity of chinch bugs. The two chief factors are meteorological conditions and a fungal disease. The latter is dependent upon the former for its efficiency. Severe winter weather does not appear to affect the hibernating adults when the locality is an exposed one. Continuous rain during the time of hatching is fatal, and is important in the natural control of the pest. On account of the dry weather which prevailed during the past summer, the outbreak will probably be more serious this year, unless the continuous rains this spring destroy the young.

Middlesex Co., Ont.

ED. DUNN.

A Fair Estimate on Time.

"I am pleased to see that, in publishing the cost of improvements at Weldwood you do not forget to put a fair value on time," remarked C. G. Robt. McEwen while in our office the other day. "Although some of your readers may shake their heads, it is calculated to set people thinking and lead them to place a proper estimate on the value of their own labor, thus contributing to the dignity of the business of farming in their own eyes and in the opinion of others. If a farmer himself does some mechanical work in the way of improvement, it is but fair and right that he should count the value of it at what a carpenter or mason would charge for the same job—at contractor's figures, in other words."

The printing of these figures is serviceable in another direction, too. It gives readers very helpful information concerning the actual cost of making such and such improvements that they may have in mind, but may be hesitating to undertake. You will have often noticed that some men in a neighborhood may be thinking of a certain move, such as building a silo or under-drainage, for a long time, without getting anything done, until some day one of them gets at

it, and his neighbors have a chance to see just how the work is done and what it costs. Then they all fall in line and follow suit. Possession of such information as you are publishing gives confidence to go ahead, and is a real service to the farming community."

Various Uses of Manure Spreader.

A manure spreader is not an indispensable implement on a farm, and a man starting with insufficient capital can get along without one. For those who can afford the price, however, it will be found a big dividend-payer, even allowing for the fact that it wears out sooner than some others, and for the further fact that it cannot be utilized all the year round. Not only does it save precious time on every load of manure hauled out, but, what is even more important, it distributes the manure finely and evenly over the land—much better than is possible with the most careful hand-spreading. We have heard shrewd farmers declare they would as lieve have three tons to the acre applied with the spreader as six tons from the fork, pointing to experience to verify their statements. While they probably exaggerate the benefit by regarding too exclusively the first or first and second year's result, there is no doubt that a ton of manure applied with the machine will produce not only earlier but larger ultimate returns than if spread with the fork. It is probably not beyond the mark to say that on a hundred-acre farm where twenty-five or thirty head of stock are kept, a spreader would pay for itself in two years, even though part of the manure were drawn in the winter with sleighs.

But what we started more particularly to say was that a manure spreader has various incidental uses, such as distributing manure and ashes and hauling roots. We have heard men say that they could crank off a load of turnips in thirty seconds. The accompanying illustration shows the spreader at Weldwood scattering a ton of ground limestone across the alfalfa field, to which it was applied in an experimental strip. While the spreader cannot be set to spread less than three tons of manure per acre, still, by lessening the depth of manure or limestone in the box, it can be put on much more thinly, even down to one ton per acre. Notwithstanding that quite a strong

wind was blowing, the spreader made a good job of scattering the limestone, though the edge of the plot will not be so quiet as if the material were applied on a quiet day. Where covering a whole field, this would not particularly matter.

How Weeds Menace.

In an article dealing with the serious menace of weeds on Canadian farms, the current issue of Conservation gives seven of the chief objections to them:

1. They take up space which should be devoted to useful plants among which they grow, and tend to deprive the latter of light and air. A few weeds, such as bindweed, wind round or climb up the stems of cereals or other crops, often pulling them to the ground.
2. They absorb large amounts of water and fertilizing constituents which are needed for the nourishment of the cultivated crop.
3. They are a source of loss in that they necessitate more labor being spent in cleaning operations.
4. The presence of weed seeds in samples of grains and in clover and grass seeds reduces the market value of these.
5. Some weeds are parasitic upon useful plants. An example of this is dodder, which lives upon the juice of the clover plants, to which they attach themselves.
6. Some weeds are poisonous to stock; others give an objectionable odor to milk when they are consumed by dairy cows.
7. Many weeds are objectionable, in that they harbor parasitic fungi and insect pests, which often find their way to cultivated crops.

These seven are surely evidence enough against weeds to warrant their extermination and to stimulate those interested in crop production to greater efforts to accomplish this.

Shallow Cultivation for Corn.

It has been hard to wean our farmers from the old-time useless custom of planting corn in hills raised some inches above the surrounding level, and from the worse than useless custom of deep cultivation between the rows. Most of them are now fully awake to the fact that corn does best when planted on level ground. But in too many cases the deep cultivator still "gets in" its murderous work. The rootlets of the corn plant love the warmth of the surface soil, hence they spread widely on every side, mostly from two to four inches below the surface—so widely that filaments from adjacent rows will meet in the center of the intervening space in a few weeks after planting. Whatever disturbs them lessens the amount of nourishment they may send up, and reduces the production of corn per acre.

So, while the first cultivation, before these spreading rootlets are sent out, may well be close to the plant, and, say, four inches deep, no subsequent cultivation should be more than two inches deep. This will suffice to destroy weeds and to maintain a soil mulch for the retention of moisture, as well as to let in air and warm up the soil. Shallow cultivation, repeated as often as practicable, especially after a rain, will surely "tell" in increasing the size of the crop.—C. R. Barnes.

THE DAIRY.

Some Calf Facts.

I have been experimenting some with the calf-raising problem, and will give you a few figures, first, on the veal calf I just sold. I sell cream, and was anxious to know whether it would pay to veal the calves. I weigh my milk, so know just how it figured out. At the time I raised the calf the milk was worth \$1.50 per cwt. The calf was fed the mother's milk until it was fit to use, and weighed at that time 83 pounds. I fed two quarts new milk twice a day first week, three quarts second week, two quarts of new and one of separated third week, two quarts of each the fourth week, and after that one quart of new and three of separated. The cost was, for new milk, 470 pounds, at \$1.50 per cwt., \$7.05; the separated milk cost a little less than 25 cents, at 20 cents per cwt. This calf learned to eat chop at about a month old, and it was kept constantly before it, yet it did not eat one dollar's worth, which made the total cost, \$7.05 for new milk, 25 cents for skim milk, and \$1.00 for chop, or \$8.30. For it I received \$12.25. It weighed 253 pounds, and in eight weeks it gained 170 pounds, which figures out exactly three pounds a day. It cost over 14 cents a day to feed the calf. I got 5 cents a pound. The gain of three pounds was worth 15 cents a day, so the profit existed in the weight of the calf when born. I weighed the calf at home, and allowed for shrinkage. I do not take this as conclusive proof that it pays to raise veals, but when situated near a good market, I think they ought to be worth more.

I feed the heifer calves the same, only, after six weeks old they get all separated milk. It looks a little expensive, but a good start is half the cow; they never forget it; at a year old I like them to weigh seven hundred pounds, at least. If calves pay to raise at all, there is profit in raising the best. I sold one, ten months old, for \$40, and killed one for beef, nine months old, that at market price for beef and hide would have brought over \$36. They weighed over 700 pounds alive (753 and 728). They got no milk after six months of age, were fed two quarts of chop twice a day, had silage first part of season, clover hay all the time, and silage again in fall. They had a large box stall to run in, and were never outdoors.

I do not believe in turning calves out on pasture; I have done it, and now profit by past experience; it never made me any money. I have had good calves, and, like lots of others I see doing it, out they would go to grass which looked good, and one is inclined to think it would be a wise course, but I have yet to know of its being a success. I feed fresh grass to the calves I have it handy, but, you see, there is a great deal of hay, too, and it has a very different effect upon the calf, in my experience. My calves are fat.

There are vast differences in ways of raising calves, and I want to know how the mother has been fed, and a little more about the calf than that. Many calves are not worth raising, I am sorry to say. The secret in calf-feeding is to start several generations back to feed and breed; it is the only way to success.

G. R. B.

Where The Profit Is.

Since buying a Babcock test and weighing milk from each cow, I have had some facts brought to my attention which I never would have ascertained in any other manner. One cow which I intended to sell has proved herself to be of double the value formerly placed on her, as her milk tests 5.4. One reason I was going to sell her was that she did not eat what I thought enough. I have found out the largest eater is not the greatest money-maker, and I begin to think more of the cow which gives returns for food consumed. In selling cream, it is the highest-tester which gives the profit. This particular cow was only dry one month, while some others require three. It takes a year to find a cow out. Nothing will pay better on a farm than a Babcock tester and weighing milk. Then, too, you cannot have things too handy. Study this problem. Every step saved amounts to something in a year.

L. R. B.

Succulent Feed Daily.

L. P. Bailey, writing in The Jersey Bulletin, gives considerable importance to the value of silage as a succulent feed for cattle. He believes that cows should have some green or succulent feed every day in the year. Silage gives this, and is a summer feed as well as a winter feed, and often needed as much in summer as in winter. Sun-dried grass is about the poorest milk-producing food that goes into the cow's stomach. Small silos are better than large ones, and one should be kept to supplement short pasture during the dry season. Silage is cheaper, and as good a feed for cows as most soiling crops common to this climate and soil.

Feeding Young Chicks.

The chicks that are just from the shell, a bare 24 or 36 hours, are not very apt to differentiate between what is best and what is not best as feed for them, and are likely to eat whatever is put before them, and oftentimes troubles that are met with later originate from inferior chick food fed during the first few days of their life. No hard, dry food should be fed the first week, such as broken wheat or corn. Allow the chick time to get its gizzard filled with grinding material before such foods are given. Stale bread soaked in milk and squeezed dry with the hand will make as good feed as one could wish; this, with hard-boiled eggs, cut up fine with onion leaves and other green food, makes an ideal ration for the young chicks. Give milk to drink, if it can be procured; if sour, so much the better. Feed as often as five times a day until they are a couple of weeks old. Provide grit of some sort; sharp sand is good, and gradually add broken wheat to their ration. As they get older, they may be fed a dry mash from the hopper. The mash may consist of bran, bone meal, rolled oats, or even crushed oats and a little charcoal. By the time they are a month old, all chick foods may have been changed to regular feeds, although the mash, as described above, and milk to drink, may be continued until they reach near maturity.—[Farmer's Advocate and Home Journal, Winnipeg, Man.]

How to Tell Age of Fowls.

An especially attractive poultry bulletin, entitled "Farm Poultry," by F. C. Elford, late manager and instructor in the Poultry Department, Macdonald College, has just been issued. This

is the first bulletin published by the College, and is for free distribution in Quebec. It contains some very valuable hints for poultrymen, among them being the following suggestions on the method of telling the age of fowls.

A pullet will show rose-colored veins on the surface of the skin under the wings. There will also be silky hairs growing there. After a year old, these hairs will disappear, as do the veins, and the skin grows white and veinless. The difference can be seen at a glance.

A pullet that has not laid will have the pelvic bones almost touching. The bones gradually widen as the fowl continues laying, and at two years old are much further apart than at one

year old. The third point of difference lies in the claws and shanks. In a young bird the skin of the claw is supple, the scales thin and brilliant. The skin gets coarser and stronger and the scales harder as the bird grows, and the nail of the last toe, which does most of the work when the bird scratches, gets worn.

There is also a difference in the eyelids. These acquire wrinkles as the bird gets older, and there is also a slightly shrivelled look on the face. This, with age becomes more and more pronounced, as does also the hardness of the bone. In young birds the bones are comparatively soft, but by the second year they are hard, and the end of the keel cannot be bent.

In the case of cocks, above and beyond these points of difference, there are spurs to judge by. The safest way is to leg-band the pullets, alternately, right and left leg. Then, if hens are not kept longer than the second season, there is no difficulty through having useless hens around.

Now is the season when the poultry delight in free range. With plenty of tender grass growing and a soil teeming with insect life, large savings can be made on feed by allowing the chickens to forage. Then, there is the important consideration of vigor. Nothing tends more towards stimulating this factor in young chicks and growing birds than opportunity to roam at will over a large field. Place the colony house in a field which is being cultivated, if possible. The corn should be sown as soon as the corn is large enough, in a satisfactory place. The orchard is another.



Strawberry.

Three-year-old Ayrshire heifer, winner of Derby at Kilmarnock and Ayr Shows, 1912, and champion female at both. (See Scottish Letter.)

Very few of our dairymen have come to realize the value of summer silage. When the pastures become dried and parched, as pointed out by Mr. Bailey, they do not contain enough succulency to keep up the production of milk. Try summer silage and be convinced.

POULTRY.

Gather the Eggs Regularly.

The hot weather season is again at hand. Each year sees a remarkable loss from bad eggs, due to their being exposed to the heat for too long periods. The incubating tendency is strong in all hens of the sitting breeds at this season. Many hide their nests away in some secluded place, often where the sun beats directly upon them for the greater part of the day. A few hours stales an egg in this condition, especially if it is fertile.

The two precautions which should be taken by every poultry owner are to gather the eggs regularly and often, and to keep the male birds away from the hens. Eggs should be gathered every day, at least, and often, during the very hot days, two or three times daily. Infertile eggs are much less likely to become spoiled than those which have been fertilized. As soon as the breeding season is over, shut the male birds in separate pens, and keep them there until the cool weather comes in the fall. If every farmer and poultryman would take these precautions to insure good fresh eggs to their customers, thousands of dollars would be saved annually.

Vegetables for the Poultry.

Editor "The Farmer's Advocate":

Farmers' wives all over the country are preparing and planting their vegetable gardens so that they may have a plentiful supply to serve on the table all summer, and have plenty left over to put away for consumption in the winter. Most of us err on the right side in producing for the needs of the table, but how many plant enough vegetables that they may have a good supply for the poultry, as well.

As this spring has been so cold and late, there is still ample time to see about it and provide a cheap and nourishing food for the hens. Beets and carrots may be sowed as late as the end of June, and set out very late, and set out every late cabbage you can get. You will find, when winter comes that the hens can take care of a large quantity of surplus vegetables.

One point in their favor is the increased health of the flock during the winter months, and another is that they are less liable to eat too much green stuff when they are let out on the grass, not to mention the saving of grain and the addition to the egg basket.

Potatoes that are too small for planting or table use should be carefully washed and baked, and fed to the hens in their mash. Other vegetables are better fed raw.

I take all the beans that are of no use or inferior for home use, and have them ground. I add a little to the mash fed in the winter. This, in conjunction with milk, will go a great way in making up for the absence of meat in the ration.

With plenty of straw in which to bury the grain, and plenty of vegetables to eat, the hens will scarcely feel the confinement necessitated by cold weather and snow. C. C. S.

GARDEN ORCHARD.

Lime Sulphur Not Satisfactory on Potatoes.

In a brief review of Bulletin 347, of the Geneva (New York) Experiment Station, which gives the results of a comparative test of lime-sulphur, lead benzoate and Bordeaux mixture for spraying potatoes, experiments carried on by F. C. Stewart and G. F. French, F. H. Hall states that lime-sulphur solution cannot replace Bordeaux mixture as a preventive of potato diseases. Orchardists who also grow potatoes hoped that they might use the lime-sulphur spray in the field, as well as in the orchard, and dispense with Bordeaux altogether, as it would be more convenient to prepare only one fungicide; but a careful test made at the Geneva Station last year proved lime-sulphur harmful to potatoes. The plants in rows sprayed with lime-sulphur were dwarfed by the fungicide, died early, and yielded about 40 bushels less to the acre than plants in check rows; while the Bordeaux-sprayed rows produced 100 bushels to the acre more than the checks.

In making the test, the first row of each of five series was left as a check, the second row received Bordeaux mixture (6-6-50), the third row lime-sulphur solution (1-40), and the fourth lead benzoate (1 lb. to 50 gals.). Each treatment was repeated six times, as the season was a long one, and all the rows were kept free of beetles by two applications of lead arsenate.

The dwarfing effect of the lime-sulphur was plainly evident by September 16th, and became very noticeable in October. The plants were really smaller than those on the check rows, not merely appearing smaller through lack of foliage, for the stems were both shorter and of less diameter on the lime-sulphur rows. The lead-benzoate plants were not dwarfed, but their condition was no better than that of the checks. There was no apparent burning of the foliage on any of the rows.

Parasitic diseases were comparatively harmless, as there was only a little early blight (very late in the season), and no late blight, but tip-burn seriously affected the plants of all rows except those sprayed with Bordeaux, and injured even these somewhat, especially toward the north end of the field. The Bordeaux-sprayed rows were still partly green when frost came, October 27th, while most of the plants on the other rows had been dead a week or more at this time.

The long season gave the Bordeaux the best possible opportunity to exert its stimulative influence, and the thorough spraying may have intensified the injury from lime-sulphur, so that the test probably presents lime-sulphur in its most unfavorable light. As a whole, however, the experiment conclusively proves it unsafe to use lime-sulphur on potatoes, and unwise to consider lead benzoate as a fungicide for potato diseases.

Summer Pruning.

To promote fruit-bearing, many growers do their pruning in the summer, or at the time the trees are in blossom. Summer pruning checks wood growth and tends to further the production of fruit, whereas winter pruning tends towards increasing the growth of the tree. All fruit-tree pruning should be done with the one purpose of increasing the production of strictly high-class fruit. Do not attempt to prune a tree unless the purpose is understood and you know what is required to produce the results wished.

In commencing to prune, cut out all dead, dying, diseased or mis-shapen limbs. Next commence at the top of the tree and thin it out so as to admit the sunlight, and gradually work down to the trunk when the tree is finished. In cutting limbs of any size, do not follow the too-frequent practice of leaving a stub of a few inches in length at every sawing. This hastens decay. The dead tissue forming around the base of the stub forms a ring, at which the decaying stub soon breaks, leaving a hole already commencing to rot, and one of the most suitable places for fungous growths and borers to gain entrance. The decay progresses, and in a very short space of time is eating at the very heart of the tree. It is, therefore, important that all cuts be made as close as possible to the trunk of the tree or to the main limb from which the branch is being severed. Closely-cut limbs leave the scar in such a position that all parts are closely related with the trunk or main branches of tree, and the wound heals over by growth of new bark around the edges.

In all pruning it is well to use a disinfected saw. Especially is this the case where such diseases of pear blight are known to exist. Dipping the saw from time to time in a solution prepared by placing corrosive sublimate tablets in water insures that no disease is spread by pruning. It is always well to carry a little paint or some substance like coal-tar, to be painted on the wounds where the limbs have been removed, to prevent the checking of the wood from the action of the sun and rain, hastening decay before it is thoroughly healed.

In removing limbs, care should be taken to make the cut at the right place to prevent injury. If a large limb is cut from the top, it very often splits off and peels the bark down for a considerable distance on the remaining limb or trunk, thus causing a permanent injury to the tree. In order to avoid this, begin with a cut on the under side of the limb, a short distance from the junction of the limb with the trunk. A shallow cut will do here. When this is made, the cut from the upper side, and close to the body of the tree, can be made with safety. Of course, any limb that can be cut with the pruning shears offers little difficulty to the pruner, but care must be taken with even these that they are cut close to the main branches from which they spring. Pruning should only be done by a careful, experienced man. It is no job for the novice or careless person. It requires care to shape a tree so that the sun gets the best possible chance to color the fruit, and at the same time keep the tree growing in the best manner to insure yearly fruiting, as well as strength to support each year's load. Weigh the matter carefully before removing each limb. It requires quickness of decision, that the work may be accomplished rapidly and to best advantage.

Topical Fruit Notes.

For over a week, whilst the blossoms were out in full, the Niagara district experienced cool, damp weather. Very rarely did the sun peep through the banks of mist, and the wind continued raw and cool during all that period. However good this may have been for the extensive plantings that have been made, and also for any trees or bushes that came through the winter in a weakened condition, it certainly is far from ideal weather for perfect pollination. Just to what extent such weather is injurious, it is impossible to say. I am aware of no exact information. But, from inference and general observation, there is probably little doubt but what the fruit will not set nearly as well in warm, bright weather. For one point, our bee and insect pollenizers could not work.

Several times I have mentioned the good prices prevailing for fruit last season, and the high prices already being paid by jam factories for this coming season's delivery. For instance, last season raspberries netted 7 to 10 cents per quart, and red currants 4½ to 5 cents here. Imagine my surprise at an article published recently by a local contemporary, which states that in the Chautauqua belt last year currants netted 8 to 9 cents per quart, and raspberries 9 to 12 cents, and that these figures are not as high as obtained in New York. The article is apparently given full credence, for there is no comment. And the journal was strongly anti-

reciprocity, because of the danger of lowering the prices of Ontario fruits, owing to competition from just such districts as the Chautauqua belt of New York State. Are there any extenuating circumstances?

* * *

The local dealers and fruit companies are now beginning to brush up and organize for the coming fruit season, which will open about the middle of June. There promises to be the usual grist of them, and if one were to take count of all of them from Hamilton, to Niagara—of all dealers and near dealers—they would not fall much short of thirty or forty. It may seem, at first sight, that this is good for the grower, because the competition is keener and, therefore, prices better. But is it? If there is competition in buying, there must be competition in selling, with a tendency to cut prices so as to obtain business. Every dealer works on a good profit of from 20 to 25 per cent., or more, if he can get it. There are thirty or forty offices to keep up, with attendant expenses. The buyer is surfeited with weekly quotations, until he must be disgusted with the whole fruit trade. Many small dealers are not at all able to fill orders with despatch or satisfaction to the buyer. Orders are often filled with any stuff at hand in the hope that it will go through and be accepted. Long credit is given to obtain or hold customers. Bad debts thus mount up and become a considerable proposition. Poor fruit is often refused by the buyer, and becomes a total loss, or is sold to pay express charges. The express companies are charged up with this, and a claim made against them on a gamble that they will pay. Legitimate claims thus suffer, and the express companies are blamed for all. Who pays for it all? The dealer or the express company? Not at all. The fruit-grower pays.

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What shall we do with our inferior fruit? This is always a live and vexatious question during the fruit season. In the first place, through intelligent cultivation, spraying and thinning, and with lucky escape from hail-storms, we should have as little inferior fruit as possible. But even with the best of care, there will be a considerable quantity to dispose of. The order business demands a certain quantity of it for a cheap trade, but the great outlet for this class of fruit should be through the canning or jam factories and evaporators. Thrown on the market indiscriminately, it reacts on the prices paid for the better quality of fruit, and the grower loses all around. W. R. D.

THE FARM BULLETIN.

An Illuminating Merger.

By Peter McArthur.

The Royal-Trader merger and the discussion it has provoked has thrown a strong light on the conditions that prevail among the banks themselves. Although the Chartered Banks already have a monopoly such as cannot be found in any other country, the leaders of High Finance are not satisfied. Within their own charmed circle they are like Carlyle's "pitcher of Egyptian serpents, each trying to get its head above the others." While in their attitude towards the public they are held together by "the cohesive power of public plunder," among themselves they are carrying on a war of extermination. In all the disastrous bank failures of the past few years, we have had the painful spectacle of the Banker's Association crowding the mourners in its haste to get the dead rival safely and deeply buried. The fight for supremacy has now taken the form of merging rival banks, so as to build up institutions that can endure the struggle for existence. Now that the Bank of Commerce has merged its way into the same class with the Bank of Montreal, it is rumored that the Bank of Montreal will take in the Royal-Trader combination so as to be able to retain its haughty supremacy. If this should be done, the smaller banks would be forced to combine into new great institutions or be swallowed by their big rivals. The battle that is being waged is profoundly interesting "to one that hath no friend or brother there." The two big banks resemble nothing so much as a couple of bull-moose so intent on their own fight that they do not see the approach of the hunter who intends to bag them both. The people of the country are watching this portentous struggle, and beginning to understand what it means to them. It means a money trust that will place all the business of the country at the mercy of a few men. This is not a thing to be endured, and, thanks to the exhibition the banks are now giving, it will not be endured. When the Bank Act comes up for revision at the next session of Parliament, public sentiment will force a revision that will place Canadian finance on a sound basis. The mystery of banking will be probed by the plain people

whose interests it is supposed to serve. And when it is thoroughly investigated, it will be found that legitimate banking is no mystery at all, but a clear business proposition that will bear the light of day.

* * *

There are many reasons why it would be dangerous to have the banking business of the country conducted by one, or a few big banks. To begin with, such a system would place the accumulated wealth of the people in the hands of a few men who could not possibly deal with the many and complex business interests of the country with knowledge or justice. Even as matters now stand, credit is extended to business men in the smaller places that are served by branch banks in a haphazard way that cannot long be endured. A couple of years ago, a Toronto business man, whose interests are too great for his name to be quoted in this connection, told me of an incident that came under his own observation. He happened to be in the office of a bank manager when a clerk brought in the applications for loans which the managers of the branches had referred to the head office for approval. The manager looked at the total amount and exclaimed:

"We can't lend that much to-day. We can lend only about one-third of that amount."

Then, without consulting the correspondence of his branch managers and trying to decide whose need was the greatest, he took a lead pencil and checked off every third name in the list.

"There," he said, as he returned the list, "we will accommodate those whose names I have checked off."

It seems incredible that this should be true, but I have every confidence in my informant, and what I have heard from business men in the smaller places convinces me that they are often the victims of just such methods. It is easily conceivable that the refusal of a loan might mean ruin to a small concern, but that would be of no importance to a busy manager hundreds of miles away, in Toronto or Montreal. And yet it is the small concerns in the country that must be fostered and whose rights should be safeguarded. With smaller banks, to which the business of the small concerns would be important, such arbitrary treatment as I have described would be impossible. But, with big banks having many branches, it is inevitable. To the big banks the branches are valuable not as outlets for idle capital, but as borrowing institutions, and it is well known that the efficiency of a branch manager is now determined by the amount of money he can borrow from depositors and forward to the head office.

* * *

Besides the injustice to small business concerns under the present branch-bank system, there is another very dangerous feature. Every big concern is practically directed by one man, or, at least, he has the say, and there is no man living who is so much head and shoulders above his fellows in business foresight, and able to say just how far credit should be extended to any big concern, as to be entrusted with the many millions of the people's savings that a bank with unlimited branches can gather. And even the smartest banker is liable to be carried away by the glib talk of slick promoters. But even if the security offered by a big concern needing much accommodation should be of the very best, it is seldom that promoting the growth of such a big business would be for the good of the country. The money of the people should be used to promote such forms of business as are directly beneficial to the people, and it is far from desirable to have banks so big that all they will care for is the accounts of trusts and mergers whose sole purpose is to exploit the country. It is reasonable to believe that one reason for the eagerness of the banks to deal with big concerns that each control a particular line of business is that some of the bank managers and bank directors are personally interested in such concerns. The indirect profits made from this line of banking do not find their way into the pockets of the bank shareholders, but into the pockets of the men who control the banks. As a matter of fact, the loans made to small concerns and to individuals carry a higher rate of interest than those made to concerns that require millions. Under the present system, the whole tendency is towards the creation of giant banking concerns all promoting different forms of Big Business. The banking business, as the leaders of finance wish to conduct it is dangerous to the depositor whose money is risked, unprofitable to the bank shareholder, who does not get the profits that legitimately belong to him, and against the best interests of the people as a whole, because of the support given to concerns that aim to stifle competition, crush small concerns and create monopolies. And the more the banking monopoly falls into the hands of a few powerful banks, controlled by a few men, the more pronounced these unjust conditions will become. It is really a good thing that the banks have chosen the present time to merge and call attention to their purposes and to the privileges they enjoy,

for it will help to establish a well-informed public opinion that will insist on an adequate revision of the Bank Act at the next session of Parliament.

* * *

Theoretically, the Canadian banking system is admirable. Its purpose was to promote strong banks, give the people a flexible and sound currency, and make capital so fluid that it could be available at all times in the places where it was most needed. Unfortunately, those who control the banks have reversed the gear of this admirable financial machine, so that, instead of distributing money and developing the whole country, by giving credit to deserving small concerns in places served by branch banks, the branches bleed dry the small centers. Instead of distributing the accumulated savings of the country where money is most needed, our reversed system concentrates it in Montreal and Toronto, where it can be controlled by a few men who use it for their own advantage in ways that are inimicable to the best interests of the people who provide the money by their deposits. I can imagine a millennium, in which our banking system, as originally designed would be ideal, but I have no hope of finding it on this sinful earth. In order to give us the proper results, all bank managers, directors and officials would be public-spirited men, above all self-seeking, and all working for the general good. But alas, those who manage and control the banks are very like the rest of us. They want to get rich, just like everyone else, and they have found that, by reversing the gear of the financial machine, they can make the banking institutions serve their selfish purposes, instead of promoting the general prosperity of the country. Seeing that they are so very human, the only thing we can do is to reform the banking system, so that it can be entrusted to the management of ordinary selfish people like ourselves. As yet, the precise method of doing this is a matter of debate, but public opinion is forming rapidly, and I hope before long to be able to assemble the conclusions of those who are giving the matter serious thought, and outline the scope of the reforms that must be insisted upon. But even now most people are quite clear on the point that there must be a rigid Government inspection of banks to prevent dangerous use of the depositor's money, a limitation of the branch-bank system which tends to concentrate the capital of the country, and that no single bank or small group of banks shall be allowed to control our finances. If we are to have a central bank, as they have in many European countries, it must be as completely under control as several banks are in those countries. Banking can no longer be regarded as a private business, enjoying unusual privileges from the Government. It is a form of public business, and must be absolutely under Government control.

New Method for Determining Fat and Salt in Butter.

Secretary Wilson, of the United States Department of Agriculture, calls attention to a new test for fat and salt in butter, which is described in Circular No. 202, Bureau of Animal Industry, just issued by the Department.

This test was invented by Roscoe H. Shaw, Chemist in the Dairy Division, and is especially designed for use in creameries. The circular explains the apparatus in detail, and gives complete instructions for operating the test, placing in the hands of practical creamerymen a simple, rapid, and accurate method by which can be determined the percentage of fat and salt in butter, and which, in connection with one of the reliable moisture tests already in use, makes possible the complete analysis of butter right before the churn.

The new test for fat will probably not require more than five dollars' worth of apparatus beside that already on hand in most creameries. The same centrifuge is used as in the Babcock test, and the same acid.

The special apparatus consists of a separatory funnel of glass, with a capillary stem. The separatory funnel is essentially a cylinder holding about two and a half ounces, constructed with a glass stopper at the top and a stop-cock in a capillary tube at the bottom. A special socket is necessary to hold the funnel while in the centrifuge.

The principal steps involved in the test are: The washing out of the salt from a weighed charge of the butter with hot water, the dissolving out of the curd with hot dilute sulphuric acid, the separation of the acid solution from the fat, and the weighing of the fat. When the salt test is to be made, the wash water is collected, and the salt in it is determined by the usual chemical reaction.

The time consumed in making the fat test is not much, if any more, than is required to make a careful test for fat in cream by the Babcock

method. A little more time is required if the percentage of salt is wanted.

The new test has been thoroughly tried out in comparison with the official laboratory methods, and is quite in accord with them in results.

Let the Toad Live.

Editor "The Farmer's Advocate":

F. C. Nunnick, Agriculturist, has lately had printed in "The Farmer's Advocate" a plea for the better protection of our Canadian birds, and now I am going to put in a plea for a more humble friend of gardeners and fruit-growers, viz., the common toad. A great many people think this inoffensive little animal repulsive, but, although forbidding in appearance, I think that a closer study of its habits and usefulness would prove it a very interesting little animal. We usually see him begin to hop about when the heat of the day has passed, and, if closely watched, you will observe him peering into every corner, under plants and leaves, looking for any insects that may be hiding there. When he spies the unfortunate bug busily eating the plants, he darts his long tongue out, and, catching his victim on its slimy end, soon has it placed where it will furnish strength to catch more of its kind. All evening and all night he keeps up his hunt for the enemies of the vegetable kingdom, or, at least, until he has fully satisfied his voracious appetite. He then seeks a cool, shady spot where he may be at ease until another twilight.

Instead of harming the toads in any way or teaching the children to dislike them, we should teach them to welcome them in our gardens. We should teach them how useful the toad is, and, instead of being afraid of them, have them study them as they would a bird or a fish, or any other beautiful object of nature, and I am sure that in a very short time their dislike and aversion will be changed to respect and interest. C. C. S.

Imported Forage-Plant Seeds.

The United States Secretary of Agriculture is calling attention to the Seed Laboratory, which has examined a considerable number of lots of forage-plant seeds, imported into the United States during 1911, and found that many of them consisted of seed of low vitality and high weed-seed content, said:

"The analyses of 18 lots of seed of alsike clover, red clover, white clover and hairy vetch, amounting to 225,780 pounds, showed that the pure seed consisted of only 44.9, 64.2, 51.2, and 23 per cent., respectively, of the consignment, while the germination was as follows: 38.8, 37.0, 30.5, and 77 per cent., respectively. Consequently, though this seed was imported at a cost of \$7.47, \$7.97, \$17, and \$3.82, per 100 pounds, respectively, the actual cost of 100 pounds of seed that germinated was \$44.35 for alsike clover, \$31.66 for red clover, \$111.86 for white clover, and \$23.29 for hairy vetch, or from two to four times the market price of seed of the very best quality.

"A special examination of seed of alsike clover and red clover imported from Canada during 1911 showed that approximately one-half was unsalable for seeding purposes in that country, the Seed Control Act there prohibiting sale when more than a prescribed number of noxious seeds are found to the pound. One lot of seed of alsike contained less than 50 per cent. of pure seed, germinating only 15 per cent., or 7½ per cent. of the entire bulk. This particular lot contained approximately 135,000 weed seeds in each pound."

Israel's Preach.

(With apologies to Uncle Walt.)

Joe says to Israel, "I wonder why the cost o' livin' is so high?" "Why," Israel says, "yer oughter know, the price o' money is so low. There's too much gold just now in sight." "I swan," says Joe, "may be there might." "Another thing is helpin' some to put the poor man on the bum; the trusts combine to take his skin, an' don't see where there's any sin in puttin' him clean down an' out." Says Joe, "I guess there's nary doubt."

"An' then there's this," says Israel, "look, the way the people all is took with gettin' rid of all their land; they're sellin' out on every hand. They're headin' for the city street; for first-class look they're hard to beat; but all the same it makes it tough for those who've more than got enough to do to keep the wolf away until they get their weekly pay, to see the people comin', in need o' stavin' where they kin do somethin' to reduce the price o' whate'er coal and summer's hot an' bread o' what an' all that's et." Says Joe, says he, "that's right, you bet."

"Then there's the way," says Israel, "what's the dope on the folks that's got a hope o' fixin' things up on the farm, an' gettin' on a solid base, an' they're gettin' out for cat, an' clothes an' things, an' they're gettin' out. What's goin' to straight-

en things just so?" "I guess I'll give it up," says Joe.

"Well, then," says Israel, "here's the cure, an' it'll work, that's certain sure. If every farmer in the land who owns a foot o' clay or sand 'll work that ground for all it's worth, an' give a chance to this old earth, an' do the thing right up to date, an' quit his leanin' on the gate, it won't be long before there'll be a change that you can easily see. We got ter make two grasses grow where there was only one, ye know, an' when that's done I guess ye'll hear no more the cry, 'it's awful dear,' an' the poor man 'll get a show ter see if he can make it go. Ye'll see things take ter gittin' bright when farmers git ter farmin' right. An' now," says Israel, "that's my preach." "Good boy," says Joe, "she are a peach." J. E. Mac.

Fall Wheat Suffered Severely.

The crop conditions in the Province of Ontario about the middle of May are thus described in a bulletin now being issued by the Provincial Department of Agriculture, based upon information furnished by a large and experienced staff of correspondents:

Fall Wheat.—In the bulletin recently issued by the Department, showing crop conditions as existing at the end of March, it was stated that fall wheat was likely to come from under the snow in practically the same condition in which it entered the winter. It was pointed out, however, that the trying weather of April had to be met with. April proved to be more trying, even, than was anticipated, for fall wheat entered May in a worse condition than has been witnessed for many years. Alternate thawing and freezing in the early half of April developed a covering of either water or ice on portions of many fields that proved fatal to a considerable portion of the young wheat. Reports have been made of losses ranging from 10 to 80 per cent. Taking the Province over, the net loss of fall wheat may be placed at about one-third. More would have been plowed up, but for clover or timothy having been seeded down with the wheat. Where the land was merely "patchy," barley, oats or other spring grains have been drilled or disked in to save the grass. While low fields suffered most severely, a correspondent suggestively remarks that "Under-drained land is all right." Taking the Provinces by districts, the Lake Erie and west midland counties have suffered most severely; the Lake Huron counties may be classed as from fair to poor, while the Georgian Bay counties range from fair to good. The Lake Ontario counties have done rather poorly west of Toronto, but fairly well to the east. Further east in the Province fall wheat has done well, but it is grown there only in very limited areas. Occasional mention has been made of the wireworm, white grub and the Hessian fly, but the crop so far has suffered less than usual from insect pests. It is of interest to note that in Ohio and Michigan, the States immediately south of our main fall-wheat districts, 45 per cent. and 26 per cent., respectively, of the fall-wheat land has been abandoned this spring.

Clover.—This crop was handicapped by unusually hot and dry weather last summer, and met the winter with a rather thin stand. The alternate wet and icy conditions prevailing during the former part of April told heavily against clover, especially on low land, and there are many spotted fields. There was also considerable heaving, but, where well rolled it soon recovered. The crop has never been so variably described as to condition, from "poor" to "good" being reported in practically every locality. The latest returns to hand, however, are the most encouraging.

Alfalfa.—Like clover and fall wheat, this crop has been considerably winter-killed, or, rather, has suffered greatly from water, frost and ice in the spring. Old fields were most badly injured. Some correspondents warn alfalfa-growers against grazing the crop, especially in the fall. While not generally raised, alfalfa is rapidly coming into favor as a fodder crop, and even with this year's drawbacks a sufficient number of good fields survive to encourage growers.

Vegetation.—The season is regarded by correspondents as being a week or two later than the average, with grass and other field growth relatively ahead of that of orchard and forest. A large number of cattle and other live stock have been turned out to grass, some of them much too early for the animals and the pastures.

Spring Sowing.—Considering the rather backward season, seeding is well forward in some localities. While some farmers have not yet got to all their spring grains, others are already putting in mangels and beets. The seed-bed, as a rule, has been in good, friable condition, except on undrained or very low, wet, clay soils, which have been variously described as being "sticky," "gummy," "waxy," or "clummy." The catch is reported to be unusually good, germination be-

ing both quick and general. More seeding than usual will be done this season, on account of so much fall-wheat land having been either reinforced with spring grains or plowed up.

Fruit.—The severity of the winter told upon some orchards in a very marked manner, while many others were practically unscathed. In the more western counties of the Lake Erie group, and in Lambton, a number of peach trees were more or less killed back in the bud, and were at first thought to be destroyed, but later examination showed that the damage was not as bad as had been feared, as the deep snow had in most cases prevented root-killing. On the other hand, in what is known as the Niagara District, the leading commercial-fruit section of the Province, peaches have come through the winter with but little harm, and the frost of the 13th and 14th of May was not heavy enough to injure the buds. So far as can be judged from the backwardness of the season, plums and cherries give promise of good yields, and apples are also likely to give a fair show of blossom. Complaints are made of injury to various classes of fruit trees from the San Jose scale, more especially in the Lake Erie counties, and of the caterpillar threatening apples in some of the Lake Ontario counties east of Toronto, but it is encouraging to note that spraying operations are reported as likely to be more active than ever this season. Raspberries, blackberries and other bush fruits were considerably broken down or frozen back as a result of the deep snow and the severe cold; but, as a rule, they have been merely checked, and not killed out. Strawberries have also suffered, but more from the drouth of last summer than from the winter. However, taking fruit prospects generally, the outlook may be classed as rather encouraging, considering the unusual severity of the past season.

Fodder Supplies.—All kinds of fodder, including straw, are scarce and very high in price. Several correspondents claim that barns have not been more closely cleaned up for many years. Hay was a very light crop in Western Ontario last summer, and had to be carefully fed in order to make it eke out; but, even with the closest handling, some farmers have had to buy from their neighbors or purchase in baled form from dealers, in order to carry live stock over to grass. In the eastern counties of the Province, however, there was a good crop of hay, but even there, so much was sold during the fall and winter to be shipped to less-fortunate localities in both Canada and the United States, that, by spring only a meagre supply was left on hand for local use. In comparatively few instances only is a surplus of grain reported in any section of the Province, owing to the long winter feeding. Oats were a much lighter crop than usual in both yield and weight, and a considerable quantity had to be brought in from the Northwest to supplement the shortage. Wheat was fed more largely than ever on the farm during the winter, more especially to hogs, and there is now less than usual on hand. Damaged wheat from the West was also imported to help out in handling live stock. But for corn silage, the situation would have been much more serious. Several correspondents point out that the scarcity of fodder forced some farmers to turn their cattle upon the grass rather too early.

The Periodical Cicada.

The Iowa State College has sent out a notice warning the people of Iowa that this is the year in which the 17-year locust or "Periodical Cicada," is due to make its appearance in that state, having previously occurred in 1844, 1861, 1878 and 1895. The locusts are expected to appear about the last week in May, and remain about a month. After having been in the soil ever since 1895, the young locusts or nymphs will emerge. The injury done is said to be less serious than one might expect. The female cicadas injure young trees by depositing their eggs on twigs and small branches. This stunts the growth of the affected branches. Trees are especially liable to injury when set near timber or on recently-cleared ground. Trees set in such places should either be cut severely back at the start, so as to leave no tempting twigs for the cicadas to oviposit in, or cut back little or not at all until after July first, when the locusts will have disappeared. With the latter treatment, the cicadas may deposit their eggs in the twigs, which can be cut off and burned.

This is a very interesting insect. The eggs laid on the trees hatch in about six weeks. The young nymphs fall to the ground, bury themselves, and live by sucking the juices from the roots of the trees. The insects remain in this seclusion for seventeen years, when they emerge in the adult form, to live only about a month. These insects resemble very much the common dog-day harvest fly, well known to Canadians. This latter insect requires only two years to develop, and as there are two broods, the adults appear yearly.

Common Sense and Science.

Editor "The Farmer's Advocate":

The farmer often works in accordance with scientific principles without being conscious of the fact. His methods have in all probability been suggested either directly or indirectly by the teaching of a recognized agricultural journal, or by lectures and addresses of experts. Hence, that which may be regarded as a merely intuitive or common-sense method is the result of acquired science. Paradoxical it is, but the average farmer is working with more science than he might claim to know. For example, he raises one or two successive crops of clover, then plows the field, thoroughly preparing the soil with after cultivation; putting in fall wheat, he gets a large yield, say 30 to 40 bushels per acre; or, instead of sowing wheat he plants the field with corn the following spring, and realizes, as did the writer of this letter last year, 60 bushels or more of shelled corn per acre. One may or may not understand the factors or underlying principles which determine his success or failure. But how much better to work with a knowledge of these, thus eliminating to a greater degree the chance element. In the case just cited, the clover furnished or at least augmented the nitrogen in the soil needed for the succeeding crop. Being turned under in the fall, it decomposed during the winter, and added humus (vegetable matter) to the soil, thereby improving its condition, rendering it richer in plant food, more amenable to the pulverizing action of the winter's frost, increasing its capacity to absorb and retain water, needed for the crop to be grown, also promoting warmth and aeration. In the instance here given, at no time during the growing season did the soil seem waterlogged or cold, though having only surface drainage, and the corn crop made continuous progress from start to maturity; it, however, received thorough cultivation. At no time did the crop suffer appreciably from the exceptional drouth, so complete was the retention and conservation of moisture, while under other conditions there was a serious shortage of the corn crop.

In agriculture, the scientist and husbandman work in the same laboratory, occupy common ground, and have a common object. Both must appeal to nature, must question her, must experiment with her, in order to learn her laws and her processes. All sound investigation and research must have a common-sense substratum, and must proceed on common-sense principles. The practical man is less concerned with causes than with effects; he is less disposed to ask why or wherefore, or to trace the relations of things. The scientist, on the other hand, seeks to know the cause or causes of his success or failure in a given instance, and is not content to set it down to chance. If he has done his part in securing the conditions essential to success, he wishes to know it; if he has failed through his own error or neglect, he wishes to know that, too; and in any case he endeavors to list and collate all the facts and factors, and draw his conclusions accordingly. To adduce another example from personal experience, some years ago I sowed about 250 pounds of common salt per acre on a part of a field of spring wheat. The results noticeable were, the salted portion was four or five days in advance in ripening, the grain was brighter in color and somewhat more plump, and the straw was brighter and stiffer. This was at that time almost a pure experiment, for salt was looked upon then as a sort of fertilizer, rather than as a solvent or liberator of plant-food inherent in the soil.

Thus, common practice, or common sense and science may go hand in hand; the one may be the complement or supplement of the other, the one aiding and bringing the other to full fruition. Common sense may bear the unlit torch and grope in the dark; science kindles the flame and gives it light.

W. J. WAY.
Kent Co., Ont.

Testing for Germinating Quality of Corn.

There has been so much concern this year about the quality of seed corn that the Bureau of Statistics of the Department of Agriculture, at Washington, requested its county correspondents to report upon the extent to which germination tests are made by farmers, and the average of the germination tests this year. According to the reports received, farmers representing 30 per cent. of the corn area of the United States tested their seed corn, with the result of an average germination of 85.2 per cent. The practice of corn-testing is confined almost wholly to the northern corn growing States; the general comment of southern correspondents being that seed-testing is not necessary, as there is little complaint regarding poor stand, resulting from poor germination. In Minnesota, Iowa and the Dakotas, however, about three-fourths of the farmers test their corn; in Illinois, 42 per cent.; Indiana, 30 per cent.;

Ohio, 36 per cent.; Nebraska, 58 per cent.; Kansas, 40 per cent.; and Missouri, 26 per cent.

Seed is testing lowest this year in the Dakotas and Nebraska, the average of reports being about 75 per cent.; in Iowa the average is 83 per cent.; in Illinois, 85; Indiana, 87; Ohio, 81; Wisconsin, 83; Minnesota, 80; Missouri, 87; and Kansas, 86.

Although the correspondents were not requested to report upon the quality of two-year-old seed corn (1910 crop) and one-year-old (1911 crop) separately, some of the correspondents volunteered the information. There is unanimity in these reports from Ohio westward to Nebraska, that the seed corn from the 1911 crop is decidedly inferior, the average of the figures given by those volunteering this being 50 for the 1911 corn, and 93 for the 1910 corn. The seed corn is being selected very largely from the 1910 growth.

In Provincial Circles.

(Editorial correspondence.)

The King's Printer of Ontario is a busy man. Mountains of documents surely verify this statement. You will find the imprimatur of L. K. Cameron on the true-blue covers and white title-pages of hundreds of thousands of publications, more or less important, that find their way yearly through His Most Excellent Majesty's mail-bags to the people, from the Provincial Parliament Buildings on Queen's Park, Toronto. Not that the "K. P." aforesaid actually sets up the type, for that is a fast-passing art, nor even does he manipulate the type-setting machine, though there was a time, long ago when, in the sombre, erst-while quarters of the London Advertiser, he wrestled in emergencies with a "stick." Next to the pen and ink used by Col. Matheson, the worthy Provincial Treasurer, in signing pay-checks, printer's ink appears to be about the most popular material in the headquarters of Old Ontario. Publicity is the order of the day. Thank goodness, we are not in Russia! Ontario officialdom cannot be successfully accused of hiding its light under a bushel or withholding information from the people. Of new bulletins of a practical turn, in relation to agriculture alone, there went out last year some 210,000 copies, and 35,000 on crops and municipal matters, besides the more ponderous reports, these aggregating a total of some 274,800 copies. It is coming to be a serious question in the mind of the new Deputy Minister of Agriculture, Mr. Roadhouse, whether the results are commensurate with the volume of publications and the outlay; or, as a matter of record and reference, whether a great deal of it does not border on the needless, especially when the growth, vigor and activity of the agricultural press in covering these fields is taken into consideration. Conditions are not as they once were. It is just possible that this species of embalming the glittering generalities delivered at half-forgotten public gatherings months ago, has reached its limit. Other matters not more useful might also be found falling into the same innocuous category.

FARMERS' INSTITUTE ENLIVENMENT.

Substantial increases in the organization of farmers' clubs throughout Ontario is an encouraging fact noted by Geo. A. Putnam, Superintendent of Farmers' Institutes. There is no doubt about the usefulness of small groups of farmers getting together and discussing in their own way problems of vital interest to themselves or their communities, and when a group of clubs band themselves together for concerted action, as has been done in Waterloo and other counties, they are able to achieve very tangible results. Where clubs exist, the Institute meetings are usually reported good. In some sections of the Province, as readers of "The Farmer's Advocate" are probably aware, there are signs of apathy in relation to the regular Institute work, and its continuance may in measure depend upon evidence of keener interest locally. In future, more attention will be paid to qualifying the official workers. It is hoped to have special courses in stock and seed-judging in practically every county in the Province next season, and, where there are District Representatives, more than one course will be held. Last season, 60 such courses were conducted, and 100 are expected for the season of 1912-13. The Women's Institutes, of which there are now about 700, with a membership of 21,000 are doing good work, especially in promoting the reading of more and better books. There is an encouraging demand for literature, and more attention is being paid to beautifying public-school grounds. The ladies are evidently awake.

Both the Canadian Pacific Railway and the De-

partment of Agriculture were satisfied with the interest taken in the "Better Farming Special" train last spring, which, despite of unfavorable weather, drew an attendance of about 18,000, or 1,000 per day, and other roads will probably share in such work next season.

STALLIONS MUST BE ENROLLED.

The outstanding event of the year in the Ontario Live-stock Branch will be the inauguration of stallion enrollment and inspection, under the Act which became law at the last session of the Legislature. The crucial section (5), which requires that no person shall stand, travel or offer for use any stallion until his name, description and pedigree has been enrolled, and a certificate of such enrollment procured, goes into effect on August 1st next, so that the time for providing the necessary machinery is at hand. The measure is opportune. Just now the horse industry enjoys a period of great prosperity, but many fore-shadow conditions approaching when, by reason of the competition of other forms of locomotion, and possibly over-production in horse-breeding, demand and prices may lose their buoyancy. For the draft type of horses this may not come so soon, but everyone concerned for the future of the industry must see that now is the time to place it upon a more secure and systematic basis by a process that will in time eliminate the undesirable entire horse and afford a measure of protection to the rank and file owners of breeding mares. Hon. Jas. S. Duff, the Minister of Agriculture, stood sponsor for this bill in the House, and probably no other undertaking in his department will so gauge his capacity and firmness as an administrator. It is, in fact, regarded as one of the chances of a lifetime to effect lasting good to the horse-breeding interest of the country. First of all, there is the choice of the Stallion Enrollment Board of four persons. With them, the Act itself designates as secretary and executive officer the Director of the Provincial Live-stock Branch (A. P. Westervelt), whose lengthy and well-proven capacity in this field of work is a re-assuring guarantee to the public at the outset. Ample knowledge and determination will be all-important desiderata in the composition of the Board. Then the country will presumably be divided into districts, with persons to be appointed by the Minister as Inspectors, under the direction of the Board, three of whom will act as committees in making inspections. Upon the competence and probity of these officers, the successful working of the Act will largely depend, and, obviously, they must have the approving confidence of the Board. By going into effect on August first next, time will be available to get the machinery of the Act in motion before the next breeding season. As secretary and executive officer, the Act will add heavily to the duties of Mr. Westervelt, and renders urgent the choice of an efficient assistant to take the place of D. T. Elderkin, who has resigned to embark in private enterprise. It is now important to be borne in mind that the owner of every stallion shall submit to the Board all evidence of the breeding and ownership, and, on payment of the fee the Board shall issue a certificate accordingly, and these are to be renewed annually. If desired by the owner, any stallion may be inspected, the report of which shall form part of the record of enrollment. The Act does not require that stallions be pure-bred or registered in the Canadian National Records in order to be enrolled, so that the enrollment certificate is not a certificate of pure-breeding. By Order-in-Council, provisions may be made for the better carrying-out of the Act, and in time the seemingly "wide-open" provisions of the measure can be tightened up. After all the labors of the Commission on Horse-breeding, and of the Legislature, the public will assuredly require more from the administration of the Act than a means of supplementing Provincial revenue. For the encouragement of owners whose horses pass inspection, and whose breeding qualifies them for standing in the National Records, these facts should be so presented in the certificates of enrollment that they will be self-evident to the most uninformed, who will thereby be protected from inferior, grade or scrub horses. In all advertisements or posters the certificate is to be a plain and integral part, and there must be nothing untruthful or misleading. Persons who breed mares have the right to demand to be shown the original enrollment certificate of the stallion. The fees are, for enrollment, \$2.00; for inspection, \$5.00; for renewal, \$1.00, and for transfer, \$1.00. The penalty for breaking any of the provisions of the Act is a fine not exceeding \$100, nor less than \$25, recoverable under the Ontario Summary Conviction Act.

ONTARIO SHINES IN HORTICULTURE.

That there is an atmosphere of wholesome activity abroad in fruit, vegetable and field-crop growing throughout Ontario, is evident without the use of a chemical searchlight in the last wing of the Parliament Buildings. There are now in existence some 35 to 40 local co-operative fruit-growers' associations, including new ones in Il-

mand, Welland and Brant. There has been house-cleaning in some of the older ones, and once the question of Provincial incorporation of a central association to facilitate buying and selling is satisfactorily adjusted and the aid of an efficient manager enlisted, the business is confidently expected to enter upon a new era of progress. It is hoped that these matters will be adjusted early in June. P. W. Hodgetts, secretary of the Ontario Fruit-growers' Association, reports helpful work being done in forty or fifty demonstration orchards, in relation to pruning, spraying, cover crops, etc. Old canning-factory plants are being enlarged or renewed, and new ones established. The prices contracted for tomatoes and other crops are more encouraging this season. We have frequently commended the illustrated volume, "The Fruits of Ontario," published in 1900, as one of the most valuable ever issued by the Department, and, as the supply of copies is about exhausted, it is gratifying to know that a new edition has been undertaken, which it is hoped to have ready for distribution before next winter. We presume the general plan of the old volume, which could not greatly be improved, will be followed, with such revisions and addition in regard to varieties and cultural methods as will bring it up to date. The time is opportune for a new edition, when so many are embarking in fruit-growing.

In field-crop and vegetable-growing competitions, and in the branch of agricultural society exhibitions, there is naturally manifested a great deal of the versatile dynamics of the secretary and superintendent, J. Lockie Wilson, which radiates in all directions through the Province and beyond.

PEOPLE, ROADS AND LAND.

If it be desirable that Ontario, old and new, south and north, have a greater farming population to enjoy the privilege of dwelling amid its happy and prosperous conditions, and that its marvellous opportunities for material advancement be given reasonable development, there was surely never presented, than in the Province to-day, a greater field for colonization nor a greater need for road construction and maintenance. In a sense, the one is the complement of the other. It is not reasonable to expect that people either in an old or new country will long be content if forced to endure the loss and hardship of travelling over bad highways. In this branch of the Department of Public Works an increasingly active and practical campaign is proceeding under the direction of W. A. McLean, who, it will be remembered, superintended "The Farmer's Advocate" split-log-drag competition a few years ago. In addition to the services of A. Sedgewick, he has lately been fortunate in securing another efficient ally in A. W. Gray, who for several years has been in charge of the good roads construction campaign in Frontenac County. Some twenty counties are now participating in the Provincial road-improvement scheme, so that the work of oversight necessarily grows. Well-approved plans in construction and maintenance, properly carried out, the public is entitled to expect where public money is invested in roads. Municipalities study their own permanent interests by co-operating, in order to the thorough carrying-out of specifications and regulations.

In the Colonization Branch of the Department of Agriculture, under the superintendence of H. S. Macdonnel, particular attention is being paid to the question of farm help, probably never so serious as this season. Matured suggestions on this topic were offered by Mr. Macdonnel in last week's issue. A large and healthy inflow of population into Northern Ontario is looked for this year, as the work is being carefully looked after both at its British and Ontario ends. As an encouragement to those desiring to go north to the new districts to take up land and to farm, a special passenger rate on the railways has been arranged. Mr. Macdonnel throws out a warning that the credit of this country is liable to be prejudicially affected in the Old Land by the floatation of "ready-made" farm and kindred speculative land schemes liable to disappoint inexperienced investors. But British investors are not the only ones likely to be "taken in." A glance over one day's issues of a few prominent Canadian newspapers will show that speculation in land is rife. Real settlement on the soil, and not land gambling, is what the country needs. If "back to the land" just means town lot or railway town-site booming, the sooner we are done with it, the better. There are always a lot of "last men" in this game who get woefully left when the bottom of the boom falls out, as it has repeatedly done in the West in the past. It is already disturbing the bankers, as the recent annual observations of D. R. Wilkie, general manager of the Imperial Bank, go to show. And will not these fictitious values in the last resort be largely assessed upon the farmers and industrial classes by manufacturing capitalists of industry and others who feel the early impact of inflation upon their enterprises?

Pen Pictures.

It is probable that no institution in the Dominion of Canada comes into touch with so large a number of persons who have made improvident investments as does the Annuities Branch of the Post-office Department. It is understood that hardly a day passes that several communications are not received in which the writers bewail the loss of money invested in some scheme that promised phenomenal dividends or returns. One of the saddest of these cases is that of a lady who about three years ago inquired as to the cost of an Annuity of \$600. The information was promptly given to her, but the opportunity to purchase was not embraced. She believed she could invest her money to better advantage, and that by the time she attained her fifty-fifth birthday she would not only have enough to pay for the Annuity outright, but a little fortune besides. This week another letter has been received from the same lady, who, by the way, is now over fifty years of age, which furnishes the sequel to the story. She says: "I have spent my savings on worthless stocks, believing, firmly believing, that I would soon be rich. I would not listen to advice, convinced that I knew best. I wonder at my foolishness now, to waste my all in schemes I knew nothing about. For some time I had a large salary and gave to certain companies every month. Now that they have turned out worthless, I see how crazy and wrong I was. I am sorry, if ever anyone was sorry, for what I have done, but nothing will bring back what I have wasted." Her case is a pathetic one, and her experience has been costly, but it is the common experience of many who have tried Get-Rich-Quick schemes.

In the same month of the same year (1909) another lady inquired as to the cost of a Government Annuity. She, too, had saved a nice little sum for the "Rainy Day" as the result of her own labors. She began payments, starting with a lump sum, and continuing monthly payments with a view to purchasing the same amount of Annuity to begin at the same age (55). In the course of time she became afflicted with a malady, which, though not fatal, incapacitated her from earning a livelihood. Under the terms of the Act, she was entitled to have her contract converted into an immediate Annuity contract. She had this done, and is now receiving, and will receive as long as she lives, an Annuity of over \$212. It is doubtful if there is a more satisfied woman in all Canada.

The Annuities System does not promise to give something for nothing, and no benefits can be received which are not paid for; but it does promise to give a return, and with the security of the Government of Canada behind it, greater than can be obtained from the investment of the same amounts in any other manner. "World's Work" says: "It is the Savings Bank, the Insurance Company, and the Government Bond rolled into one in a shape adapted to the smallest of depositors." Your Postmaster will furnish you literature descriptive of this marvellous system of investment, or you may obtain the information desired by writing to the Superintendent of Annuities, Ottawa, to whom your letter will go free of postage.

TRADE TOPIC.

SCOTS GUARD BAND FOR OTTAWA EXHIBITION.—Great Musical Organization is Engaged for Thursday, Sept. 12. The famous band of His Majesty's Scots Guard, London, Eng., will be brought to Ottawa by the Central Canada Exhibition Association, as one of the special Dominion Fair attractions. By permission of the officer commanding, and through an arrangement with the Canadian National Exhibition, the Scots Guard Band have been engaged for one day, Thursday, September 12th. The military spectacle, "Battle of Omdurman," includes a big tattoo feature, which must be presented on a grand scale. The railway companies have agreed to carry members of bands engaged to play at one-half the lowest one-way first-class fare.

Attention is called to the advertisement in this issue of Jas. W. Glendinning, V. S. Beaverton, Ont. Special attention is called to operations. See the advertisement.

GOSSIP.

Two first-class Jersey bulls a little over a year old, and of solid color, with full black points, are advertised in this issue by Geo. A. Reburn, Massawippi, Que. These bulls are sired by Brampton Ruby Golden Fox, and their dams are of pure St. Lambert breeding. If interested, write Mr. Reburn for full particulars.

During the period from April 25 to April 27, 1912, records for 264 cows were received and have been accepted for entry to the Holstein-Friesian Advanced Register; thirteen of which were extended to fourteen days, one to twenty-one days, twenty-four to thirty days, and one to sixty days. This herd of 264 animals, of which over one-half were heifers with first or second calves, produced in seven consecutive days, 106,328.7 lbs. of milk, containing 3,895.843 lbs. of butter-fat; thus showing an average of 3.66 per cent. fat. The average production for each animal was 402.8 lbs. of milk, containing 14.757 lbs. of butter-fat; equivalent to 57.54 lbs. or 27.4 quarts of milk per day, and over 17.2 lbs. of the best commercial butter per week.

HOLSTEINS AT AUCTION.

Attention is again called to the extensive dispersion sale of eighty head of registered Holstein cattle at Hill Cliff Stock Farm, only four miles east of Salford and a like distance west of Burgessville, in the great dairy county of Oxford, on Monday, June 10th, 1912, at 1 o'clock. The cattle are the property of W. A. Tackell, Holbrook, Ont., and are bred from some of the best breeding bulls of the breed, as Prince Albert De Kol, a full brother to the noted Lord Roberts De Kol and Queen De Kol 2nd's Teake. At the head of the herd is Dutchland Sir Hengerveld Maple Croft, a bull bred by Fred F. Fields, Brockton, Mass., and whose sire has upwards of 100 A. R. O. daughters and 30 proven sons. This affords a rare opportunity of obtaining an excellent sire, as he and many of his get are for sale. Forty pounds of milk per day is a common yield for two-year-old heifers in this herd, and seventy pounds for mature cows. The entire herd has been bred for persistency in heavy milk flow, and the form which goes with heavy production. Plan to attend the sale. Catalogues are ready. If interested, write for one. Trains will be met at the Salford and Burgessville stations on the day of sale.

THE ORMSTOWN SALE.

The first annual sale of registered stock, under the auspices of the Beauharnois Live-stock Breeders' Association, which will be held at Ormstown, Que., June 14th, 1912, promises to be one of the greatest live-stock sales ever held in Eastern Canada. Already there are one hundred Ayrshires, thirty Holsteins, and twenty Clydesdales, all registered, and many imported, consigned. The noted Ayrshire breeders, R. R. Ness & Sons, Howick, Que., have consigned several sensational animals. Hector Gordon, another breeder of show-yard winners, has a number in the list, as has also P. D. McArthur, the owner of the famous Netherhall Milkman (imp.) 25775. With such well-known breeders as these, and others in the person of Mr. Logan, Mr. Bryson, D. M. Watt, R. Howden, Duncan McEwen, J. P. Covers, S. A. Cleland, McMillan & Leggat, and D. A. McFarlane, the Ayrshire consignment is especially strong.

Those who are upholding the Holstein end of the sale are J. J. Alexander, John McRae, J. J. Tannahill, Neil Sangster, D. H. Brown, and the public may rest assured that each and every animal is of high quality, and is the right kind to advance dairying and breeders' interests.

The Clydesdales comprise a fine lot, and will be a valuable asset to the sale. Catalogues are ready, and may be had by applying to J. G. Bryson, Sec.-Treas., Ormstown, Que.

Ringworm Cure.

A Northern Ontario correspondent writes: "I have used the following recipe as a cure for ringworm with good results: Mix up a salve of lard, sulphur, and saltpetre, in the ratio of 3:2:1. A few applications will cure the ringworm." J. R. B.

TRADE TOPICS.

CREAM TO SELL?—Readers of "The Farmer's Advocate" who can supply fresh cream for buttermaking purposes, would do well to write at once for particulars to the Walkerton Egg and Dairy Co., Walkerton, Ont., who furnish cans, prepay express charges, and pay every two weeks. By this plan, the sweet skim milk remains on the farm to feed stock and build up the soil. The cream is paid for by careful test. Mention "The Farmer's Advocate" in writing.

One of the most serious obstacles to profitable poultry-keeping is the presence of vermin on the birds. Poultry houses should also be kept in a sanitary condition, and one of the preparations recommended by several authorities for this purpose is "Avenarius Carbolinum," said to be effective, easily applied, and cheap. Write a post-card request for free bulletins to Carbolinum Wood Preserving Co., 194 Franklin street, New York City, and secure complete and useful information.

Ditching and underdraining are important questions on most farms. Labor is scarce, and hard to get at any price. Drains must be dug. The solution of the problem is a Traction Ditcher. The Buckeye Traction Ditcher Company, of Findlay, Ohio, whose advertisement runs in these columns, make a machine, either gasoline or steam power, which will dig from 100 to 150 rods of ditch daily. Two men can operate the steam machine, and one man the gasoline ditcher. It looks like one of the best propositions. If interested in ditching, write the company for their catalogue illustrating and describing all the various types of ditches made by them. See advertisement in another column.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

VETERINARY COURSE — CORN.

1. What qualifications are required to learn to be a veterinary?
2. How much are the fees for each term?
3. How old does one have to be to enter the college?
4. How long do you have to go with another veterinary? Any other information you can give me on this subject will be thankfully received.

5. What varieties of ensilage corn do you recommend?
SUBSCRIBER.
Ans.—1, 2, 3 and 4. Write Dr. Grange, President, Ontario Veterinary College, Toronto.

5. There are several varieties of corn well suited for ensilage, as Leaming, Bailey, White Cap Yellow Dent, and many others.

BREEDING MARE.

1. Have a mare five years old that urinates often, a little at a time, and especially when taken to the stable after a drive or work. Bred her last year, and she aborted about five months afterwards. Would the existing condition of her kidneys tend to cause her to abort? Would you advise to breed her again?
2. Have another mare due to foal soon. She is sixteen years old. At that age, would you breed her again this summer in preference to the younger one or not?
F. A.

Ans.—1. If the mare's kidneys were in such a bad condition as to affect her constitutional vigor, they would likely have a bad effect upon the fetus. Would get a veterinarian to prescribe some treatment to tone up the mare's system, and try breeding her again, being careful to give good care.

2. Why not breed both mares? Would certainly breed the old mare as long as she will raise a colt.

MORE ABOUT MELILOT.

Since publication in "The Farmer's Advocate" (April 25th) of my article on melilot, inquiries for further information have come to hand. The following from D. F. M. is representative:

I have just noticed your article in "The Farmer's Advocate" re the growing of Bokhara clover. Will you kindly answer me the following questions at your earliest convenience:

1. Do you sow the clover seed by itself or with a grain crop?
2. How much seed do you sow to the acre?
3. Where can the seed be bought?
4. How does the time of cutting it compare with the mammoth or red clover?

Any other particulars regarding it will be thankfully received.

If I could get the seed in time I would like to try one acre of it this spring.

Yours truly,

D. F. MACDONALD.

In answer, would say that I sow the sweet clover with any kind of spring grain crop, and sow 20 lbs. per acre. I think the seed can be bought from Toronto seedsmen. Cut it for hay when 2½ feet high. I do not know that I can answer or give a more intelligent general answer to the many inquiries I am receiving than to quote I. M. Buell, in Hoard's Dairyman.

"Valuable as melilot is shown to be as a forage crop, it will rank still higher as a renovator of the fertility of the soil. Being a legume, it shares with other genera of that family in the maintenance of the nitrogen-secreting organisms that enrich the soil. In fact, our lucerne growers inoculate their fields with the melilot bacteria to make their plants vigorous and lasting. It has the advantage of its hardness, adaptability to poor soils, its spontaneous growth, and, most notably, of its remarkable root development. This last feature is due to its biennial habit. The first year's growth, like that of the cabbage, beet, and turnip, goes to provide a storehouse of food for the rapid second year's production of seed, so that, unlike the other legumes, with their slender fibrous roots, it develops a cluster of fleshy roots which reach several feet into the ground. My own observations afford an estimate of over 20 tons of root-growth per acre. From the New York Experimental station I get an estimate of 28 tons per acre. This root-development is unique in the pulse family, and, with the nitrogen-secreting organisms, makes an ideal combination.

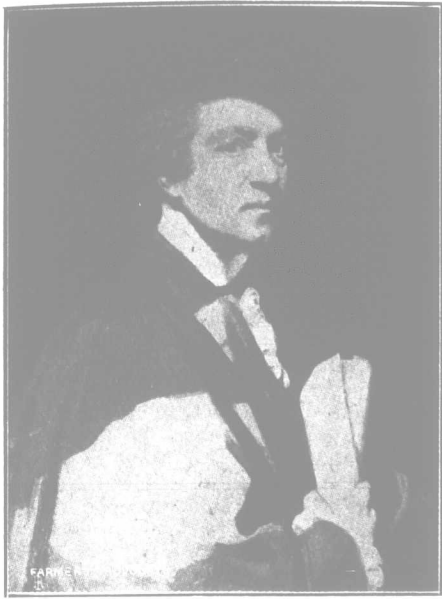
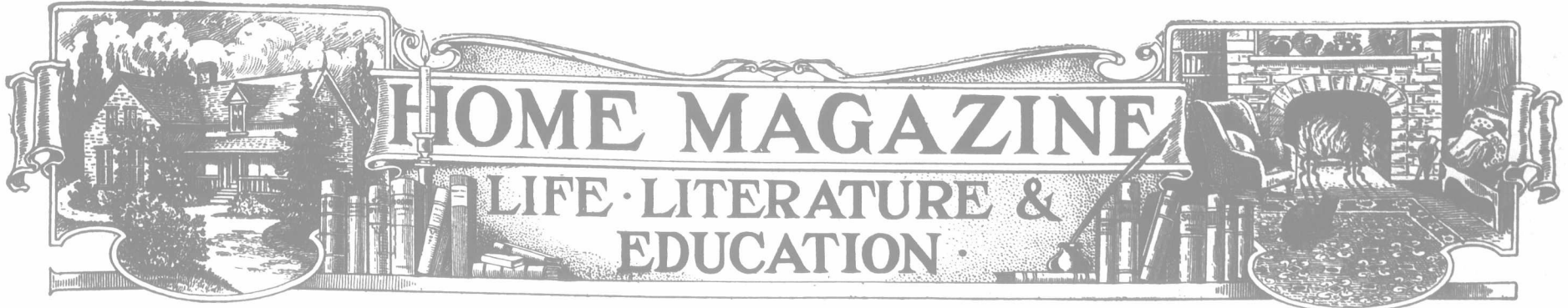
"The second-year growth is even more remarkable than this. I have taken ten pounds of half-grown herbage from a square yard of surface early in June, or more than 24 tons per acre, in less than half the growing season. This is followed by a corresponding crop of seed, which explains its rapid propagation.

"But its biennial habit gives it another value as a fertilizer. The dense fibrous roots of the perennials are slow to decay, and yield their fertility to the soil, but the long, fleshy roots of melilot decay almost as soon as the seed matures, leaving their nitrogen content in condition for immediate use, and the soil in the highest state of permeability through this deep penetration."

"These marked advantages have been verified many times by observation. I do not know what further testimony anyone wants than the above. Just fancy 28 tons of roots per acre, and 48 tons of vegetable matter per acre. What does it mean? It means that we are now independent of farmyard manure.

I think I can see a whole host of farmers hold up their hands in horror at this statement, but they must remember that there are great revelations taking place in agriculture, as well as in art and science. Who would have thought a few years ago that you could hear a person talk 100 miles away, and recognize his or her voice, and who would have believed that you would ever see anyone flying through the air at the rate of 100 miles per hour, or that we should ever see people driving through the country roads without horses, or that we should be able to make our apple trees bear all the apples that they can stand up under. Wake up, brother farmers, and move on with the rest of the world.

WM. LINTON.



Sir Joshua Reynolds.

From a painting by himself.—Perry Print.

Little Trips Among the Eminent.

Sir Joshua Reynolds.

[With acknowledgments to Encyclopædia Britannica, and biographies by William Martin Conway, and others.]

We now come to the time at which art in England achieved a point of excellence which gave it right to be classed with the great art of Europe, a time at which distinctively original and typical characteristics appeared, so that the artists of England might be correctly said to have formed a "school"; and it is not remarkable that the first "school" should be in portrait painting.

It was, perhaps, inevitable that the painters of the time should devote themselves chiefly to this class of art. The period was one of action, of war—of the French Revolution, the revolt of the American Colonies, the troubles in India that led, through the genius of Warren Hastings, to the consolidation of a great British possession in Southern Asia. It was a time, too, of great thinkers and statesmen, a time when, in the newspapers of the day, names of such men as Pitt, and Burke, and Grattan, and Fox, and Adam Smith, and Samuel Johnson, and John Adams, and Franklin, stood side by side with those of Washington and Sherman, Rodney and Hyder Ali, Sir John Moore, and Napoleon and Wellington. "Men of action were needed and known on all hands," says Conway. "The world of fashion was witty, and prided itself upon its culture and refinement. Whether for good or evil, fame was everywhere ready to carry far the glory of success. In such a day, portrait-painting must of necessity flourish." Men who were doing things to make history were naturally anxious that their personality should be "the more vividly handed down to posterity in this way. Among women of beauty and fashion it became the fad of the hour to see their fair features depicted on canvas, and often large amounts were paid to favorite artists for doing such work. And so Reynolds and Ramsay, Gainsborough and Romney, waxed fat in the land, while poor Richard Wilson and his following of landscape-painters starved.

Among those mentioned, the first named has been considered by many the most talented of all—Joshua Reynolds, first president of the Royal Academy, for some time "painter to the king" at the Court of George III.

Had the state of affairs been other in the artistic world of England, however, it is not likely that Reynolds would have been other than a painter of portraits.

As a boy he showed marked talent in drawing, but it was always people that he drew, never trees and cottages and rolling downs, such as delighted some of his brothers of the brush. Indeed, all his life long he evinced very little interest in nature for her own sake. The realms of pure intellect, the society of brilliantly-intellectual people appealed to him infinitely more, and the chances are that, had he not turned to art, he would have been a man of letters.

Reynolds was born at Plympton Earl, Devonshire, July 16th, 1723, the son of a clergyman, who was also master in the free Grammar School in that place. Naturally, brought up in such environment, he received a good education, but so decided was his leaning towards the artist's career that, at eighteen, he was sent up to London, to study under Hudson, at that time (although but little appreciated now) the leader among the portrait-painters of the metropolis.

Reynolds soon, however, tired of Hudson's men in velvet and much-befouled ladies. He had his own ideas of art, his own ideals for expressing, above all things, character, through features and pose, with comparatively little attention to mere details of present fashion or fabric, so in two years he left the studio and returned to Devonshire, setting up for himself as portrait-painter at Plymouth Dock.

Possibly commissions did not at first come in thick and fast, for several more fluctuations between London and Plymouth ensued before the young artist finally settled down in the former city with a clear probability of a good livelihood and of an extended scope for his genius before him. In the meantime, he had had opportunity to study the fine effects of flesh-texture by William Gandy, and had made, through his courtly manner and impressive personality, some influential friends who were soon to stand him as benefactors not to be despised.

Among these was Viscount Keppel, who, on hearing of his great desire to study Italian art, invited him to accompany him, in his own ship, the Centurion, on a trip to Italy. Reynolds gladly accepted the opportunity, and for the next two years spent the greater part of his time studying the works of the great masters in Rome, Florence, and Venice. At first he was greatly disappointed in the works of Raphael, but before long he confessed that he had been in the wrong, and to the end of his career the influence of the masters might be recognized in many of his works, especially in his groups of mothers with their children, posed somewhat as were the madonnas with the Christ-child and St. John, over which he had so often pored, and clad, with the fashions of the time thrown aside, in drapery of his own imagining. Above all was he influenced, for all time henceforth, by Michael Angelo, whom he never ceased to regard with an admiration akin to worship.

A less happy effect of his sojourn in Italy was the deafness succeeding from a cold which he caught there, and from which he was never able to rid himself.

On his return, via Paris, he again established a studio in London, exhibited a portrait or two, and, through the recommendations of Keppel (of whom he had painted a portrait) and others, was immediately overwhelmed with orders. Men and women of fashion and wealth flocked to his studio, each anxious to be painted by this good-looking, dignified and courtly young artist, who could make each and all look poetical. He was invited to the homes of the great; he formed friendships with Dr. Johnson, Burke, Goldsmith, Garrick, and Sterne; he soon began to live in a style that comported with his prosperity, keeping liveried servants and a showy coach, with gilt

wheels, and pictures of the four seasons on its panels; in short, he became the rage.

His art, however, did not suffer through his social successes, and when in 1768 the Royal Academy was founded, he was unanimously chosen as its first President. In this office he showed tact and executive ability, and although he was never beloved as was his successor, Lord Leighton, he was always respected. Even the king, George III., showed his appreciation of him by knighting him, and, on the death of Allan Ramsay, appointing him as Court painter.

It was as President of the Academy that Reynolds delivered his addresses, since published as the "Discourses of Sir Joshua Reynolds." So great was the literary excellence of these, that it was held impossible that they could be the work of a painter, and credit for their composition was variously attributed to Johnson and to Burke. Both of these men, however, emphatically denied the gentle imputation. "Sir Joshua, sir," spluttered Dr. Johnson, "would as soon get me to paint for him as to write for him!"

Reynolds was an indefatigable worker. In 1753 alone, one hundred and twenty persons sat to him for their portraits. Often, to be sure, he painted only their faces and general outlines, employing journeymen to complete the details of costume and background, but the many pictures, ostensibly his own from start to finish, that still remain, enough reveal his prodigious energy and application;—"still remain," it may be repeated, for, owing to his many experiments in color, in a vain attempt to achieve the effects produced by the old masters, especially Correggio and Titian, numbers of his pictures, lacking permanent qualities, speedily went to ruin. Later in life he achieved more permanent methods, but these he seldom divulged.

Among famous people whose portraits he painted were Johnson, Sterne, Goldsmith, Gibbon, Burke, Fox, Garrick, and Mrs. Siddons, as the Muse of Tragedy. It is told that, when completing the painting of the robe of the famous actress, he wrought his name on the border. Mrs. Siddons, conceiving it to be a piece of classic embroidery went near to examine it, and seeing the words, smiled. The artist bowed, and said, "I could not lose this opportunity of sending my name to posterity on the hem of your garment."

"Reynolds' portraits," says Sir Ronald Gower, "of Lord Heathfield, of Laurence Sterne, and of Mrs. Siddons as the Muse of Tragedy, are the very greatest portraits any English painter has created, unapproachable in dignity, intellect and force." Perhaps the same praise might have been given to more of his portraits had he not yielded so often to the temptation to flatter, and to seize upon classic poses and titles for his sitters, a concession that never did aught for him save to lead him away from himself into a certain artificiality that could not but detract from his work.

He was especially happy in his portraiture of women and children, as his very well-known pictures of the three beautiful ladies, Waldegrave, and the sweet child in "The Age of Innocence," will alone testify. He also painted several pictures of the beautiful Elizabeth Gunning (afterwards Duchess of Hamilton) and her sister. These women, by the way, were so beautiful and so fascinating that whenever they appeared at Court, it is said, peers and peeresses used frequently to lose all their dignity and climb on chairs and tables to obtain a better view of them.

As a colorist, Reynolds has been highly praised. Ruskin deems him one of "the seven supreme colorists of the world," the



The Age of Innocence.

From a painting by Sir Joshua Reynolds.

other six being Titian, Giorgione, Correggio, Tintoret, Veronese, and Turner. He also says of him, "Considered as a painter of individuality in the human form and mind, I think him, even as it is, the prince of portrait painters."

About 1789 Reynolds' eyesight began to fail, and three years later, on February 23rd, 1792, he succumbed to an acute attack of liver trouble.

He was buried in St. Paul's Cathedral, and the bulk of his fortune, amounting to £100,000, with works of art which sold for £30,000, was left to his niece, Mary Palmer. About £15,000 was distributed in legacies to other friends.

Mr. Carnegie's Advice to Girls.

Andrew Carnegie was introduced to the girl employees of a newspaper office in New York recently, and gave them some advice which is worthy of a wider hearing than it received at the time. After contrasting the happiness of toil with the disadvantages of being born rich, he said: "Most millionaires' wives are not happy. They have too many luxuries and few mental resources to fall back upon. Don't refuse a man simply because he is a millionaire. I would rather be born poor than a millionaire. I have had some experience in both directions. I have made forty-two millions in my time, but I want to say the only right man has to wealth lies in acquiring it by some useful labor. The great trouble with the wealth of to-day is that the sons of millionaires do not realize the necessity of being of use to the community. I shall never forget how proud I was when I got my first wages of \$1.25 a week, and how I felt when I was raised to \$1.40 as a telegraph operator. To take home that sum to my good mother gave me such a feeling of manly independence. I owe a great deal to my mother. She was a seamstress, cook, washlady, and never until late in life had a servant in the house. And yet she was a cultivated woman. She read Channing and kept up with the literature of the day. When I was a little tot she used to read good books to me. You young women have every opportunity for literary culture, and you ought to avail yourselves of it." This common-sense encouragement to industry from such a source will do a world of good, and his excellent tribute to his washwoman mother is tender and beautiful beyond expression. His tribute to his mother's industry and virtue calls to mind the description of the ideal wife and mother: "She looketh well to the ways of her

household, and eateth not the bread of idleness; her children arise up and call her blessed."—(Prov. xxxi.: 27, 28.)—Onward.

Hope's Quiet Hour.

Difficulties of Unbelief.

Then said JESUS unto the twelve, "Will ye also go away?" Then Simon Peter answered Him, "Lord, to whom shall we go? Thou hast the words of eternal life."—S. John vi.: 67, 68.

"There is no unbelief. Whoever plants a seed beneath the sod, And waits to see it push away the clod, He trusts in God."

We hear so much talk about the "difficulties of belief," that some half-doubtful Christians become quite apologetic for their belief. Instead of glorying in the Name of their Great Master—the Name which, even from a worldly point of view, towers infinitely above every other name which any man has borne from the beginning of the world—they shrink back ashamed when an unbeliever accuses them of putting their reason behind their backs. There are plenty of "difficulties of belief," life would be very flat and uninteresting if we had learned all that there is to know and our eager minds were forced to rust from disuse. There always will be difficulties of belief—in this world, at least—thank God. When we can understand all the mysteries of the Infinite God, then our minds will be infinite, too. Until that time arrives, we are children in our Father's great school, making progress more or less swiftly, but not able when in the lower classes to grasp the meaning of things which will be quite clear when we have studied longer.

But, when men talk scornfully about the "difficulties of belief," they have evidently not faced the fact that the "difficulties of unbelief" are thousands of times harder to surmount. Whichever side we are on we shall find difficulties, but believers have chiefly physical difficulties to get over, while unbelievers have moral difficulties. Our belief in apparent impossibilities, which are merely physical, depends on our experience or on the reliable evidence of other people. We are all like the Queen in "Alice Behind the Looking-glass," who—with practice—found it quite easy to believe a great many impossible things before breakfast. It seems quite impossible that a big yellow pumpkin can come out of a dead-looking seed, or a big stalk of corn out of a small kernel. More impossible still is it that the pumpkin should contain many seeds, each capable of growing into a pumpkin, so that out of one seed might easily come millions of pumpkins. And that is only one thing. Every seed you sow is trustfully put in the ground in the expectation that an apparent impossibility will be the result. If a man who had always lived in the frozen North, without any information about temperate climates, should go through your orchards and be told that the beautiful but tasteless blossoms would mysteriously change into delicious apples, plums or cherries, he would say you were expecting him to believe an impossibility. But when every farmer told him the same thing, he would be a fool unless he believed it—although it would still appear as impossible until he got used to it. Open your eyes in wonder, you farmers who are allowed to help God in working His yearly miracles. You put hard little seeds into the ground—that part is simple and easy—then God sends His wonder-working magicians (sun, rain and air) to wake up in each seed that most marvellous thing of all, LIFE. In the fall you gather in the fruit, grain and vegetables which have come out of the invisible into the visible, the solid gifts from the Father, which had no existence

before. Why should we not be filled with wonder each year, as the men and women wondered when the loaves and fishes were multiplied to feed them in their need. We should starve, every one of us, unless God every year worked apparently impossible miracles for us. Is anyone foolish enough to say: "I won't plant any seeds until I can understand how and why they can increase?" We are all like the child who—when watching chickens hatch in an incubator—remarked: "I see how they get out, but I don't see how they get in." The apparent impossibility of chickens getting into sealed cases, where there were no chickens before, does not keep anyone from acting on faith and sacrificing the eggs for the sake of chickens which have—as yet—no existence.

We believe that dead food can be mysteriously transformed into living flesh and blood, into bones, skin, muscles, nerves and mind. This seems to be impossible, but our faith in it is practically shown at every meal.

Then we believe other apparent impossibilities because of the evidence of trust-

not shake our faith. The question to be decided is whether the evidence is strong enough. As a matter of fact, the evidence of the Resurrection is stronger than it is for any other fact of history. For no other facts have so many witnesses—people who could not have been mistaken—dared torture and death.

One of the difficulties unbelievers have to face is why the followers of JESUS of Nazareth, scattered and broken-hearted by His death, suddenly began to try to convert the world to believe in Him. What could they gain by publishing a lie? Nothing but earthly ruin and punishment hereafter. Yet it is a fact of history, which nothing can disprove, that immediately after the Leader was crucified, Christianity spread like wildfire, in the face of the most awful persecution—tortures that we can hardly bear to read about were calmly and even joyfully endured for Christ's sake. The little Christian Church, which seemed so helpless and weak, and which demanded of all disciples that they must put away every sin, and must obey to the death One Who had been put to death as a

If the ship had been filled with heathen men and women, the large majority of the men would have trampled down the women and children as they fought their way to life. It is indeed "a law of human nature" to save the weakest first, but it is a law that was only discovered by a few choice souls here and there, until the Sun of Righteousness arose to be the Light of the world. Now only a few blinded souls doubt the glory and necessity of sacrifice. Let them explain, if they can, why it is worth while—grandly worth while—for great and gifted men to stand aside and give up this life in order to save women and children, many of whom are ignorant and desperately poor. We Christians know why it is worth while—our Leader has thrown light on that difficulty. The Good Shepherd must save His sheep in their helplessness, though it meant the sacrifice of Himself—the greatest and best of men.

"The strongest shall stand the most weak."

The Bishop of London has asked of unbelievers some difficult questions. How is it that Christians lift the Cross (the old gallows) in triumph on the highest steeples in the city and country? Their loved Leader died on it, why should they not hide it in sorrow and shame? Unless He rose again, there is no explanation of this mystery. How is it that the most holy rite of the Christian religion is called the "Eucharist," or Thanksgiving, and is always celebrated with joy, although it is the solemn memorial of the awful death of the Founder of the Church? Unless He rose again, how is it that for nearly two thousand years there has been no trace of sadness in this constantly-repeated Memorial? How is it that conservative Jews changed their holy day from Saturday to Sunday? Something of great importance must have caused the sudden change. Unless it was the Resurrection, what was it? Have unbelievers any reasonable explanation to offer of this undoubted fact?

How is it that the men and women who believe most enthusiastically in the living Presence of their Risen Master win love and respect from the world? There have been great men who did not believe in God, but they are usually admired for what they have discovered rather than for their own personality.

Ask a hundred of the strongest Christians you know what it is that makes them happy, and see if they will not reply: "The love of Christ." Ask a hundred open unbelievers—if you can find so many among your acquaintances—what it is that makes them happy, and they will probably tell you that they are not happy at all. If Christianity is false, then there is a moral impossibility to be explained in the fact that those who accept it wholeheartedly grow always nobler and happier. Not only a learned philosopher here and there, but thousands upon thousands of ordinary men and women, of all races and conditions, climb out of darkness and misery into light and joy on the Ladder of the Son of Man. When you want to know the value of a medicine, you consider that the testimony of one who has honestly tried it, and has been cured by it, is of more value than the confident assertion of hundreds who have never tested it at all. So, if you want to know the value of Christianity for curing sin and misery, ask genuine Christians and you will get expert testimony.

Very few really dare to face the difficulties which infidels have to explain, and therefore there are very few who openly proclaim themselves to be unbelievers. But, if Christ is our lawful King, it is not enough to be afraid to openly join His foes. He demands our love and our obedience, our loyalty, and our lives. Has He not a right? To whom shall we go, if not to Him? If He cannot give us life for our hungry souls and joy and happiness, can anyone? We can find the Living Master if we seek. But only those who seek earnestly really find Him. Brown-

"What is the 'love of Christ,' friend? When I love myself, I love myself, and said, 'I will not give up my life for you, but I will give up my life for you if you will give up your life for me.'—then you've faith."

DORA FARNCOMB.



Mrs. Siddons, as the Muse of Tragedy.

From a painting by Sir Joshua Reynolds.—Perry Print, Perry Pictures Company, Malden, Mass.

worthy witnesses. For instance, anyone who has read the newspapers lately would be a fool if he doubted the possibility of wireless telegraphy. Personally, he may have had no experience of this new mystery, twenty years ago he would probably have said that it was impossible, but the testimony is too strong to be doubted now. So also it is with the telephone, electric cars, moving pictures, phonographs, and hosts of other things. We don't understand, but we believe. We don't surrender our reason, but we know it would be most unreasonable to doubt the evidence. We stand prepared to believe in any apparent impossibility which Edison or other reliable experimenters may reveal in the future.

Therefore, when we Christians stake our hopes for this world and the next on the Resurrection of the Founder of our religion, Who, as the Roman historian Tacitus declares, was put to death by Pilate, its apparent impossibility does

criminal, went forth on its apparently impossible mission of converting the world. How the Romans must have ridiculed its pretensions. Yet, in less than 300 years, the Empire had been captured for Christ. Empire after Empire has crumbled away, and still the Church of Christ goes forth conquering and to conquer. If it is not based on Truth—truth often proclaimed in very mistaken fashion—how is it that belief in its doctrines builds up men and nations in righteousness and civilization? The world gazed in wondering admiration when 1,600 men used their strength to save the weak, but seeking what seemed "the survival of the fittest," for the survival of those who had no power to save themselves. Where, but among people inspired by the Bible teaching and the example of One Who was so mighty that He could not save Himself, could such a glorious triumph have been a wreck of the "Fittest"?

The Ingle Nook.

[Rules for correspondents 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.]

Hot Weather Clothing.

Dear Ingle Nook Friends,—The hot weather on the threshold, thin dresses, June roses, strawberries and salads! What a jumble, and yet jumble they do into one's mind as May closes and the fairy pink and white apple blossoms flutter away, giving place to the hard little green knots that promise luscious red fruitage and another scene of beauty when September comes.

No doubt Mrs. Thrifty had all the thin dresses made long ago, in snow time, so that they are lying all crisp or crinkly or shimmery, as the case may be, waiting for the first hot day that June springs upon us; but I believe you will agree with me that most of your friends leave these very summeriest of garments to be made up in the lull between putting in gardens and haying time. And, after all, one does get the very newest fashions then, if one cares for that.

How very pretty and simple they are this year, and how very easily cleaned,—baby waists, surplices, elbow sleeves, flat shoulders without even the suspicion of fullness about the top of the sleeve, trimming of flat bandings and insertions,—what could be "easier"? And how light! Really for out-and-out comfort one could ask nothing better than a fairly warm day and a one-piece gown of linen, chambray, cotton-crepe, cotton voile, dimity, mull or muslin.

It is a mistake to trim any of these up too much; the simpler forms have better style. Besides, too much elaboration is surely, so surely, paving the way for another day not so pleasant, a day of stewing kitchen heat, hot irons, red face and general out-of-sort-ness. One can't have an elaborate wash-dress and escape the penalty thereof.

By the way, if any of your wash dresses from last year have become faded you can restore the color very easily by using Maypole soap; or you may run a good chance of making it perfectly white by using the following bleach: Dissolve 2 tablespoons chloride of lime in one pint hot water; strain, then add 1 gallon water. Soak the goods until the faded pattern or color disappears, then rinse and boil, rinsing again to remove all trace of the chloride solution.

Scientific American, a very valuable work, gives the following as a bleach for very delicate fabrics: Wash and boil the goods, then transfer them to a warm bath of 500 parts water and 2 parts permanganate of potash. Leave for an hour quite under water; then transfer to a second cold bath of 500 parts water with 50 parts sulphurous acid. Leave in this 3 to 4 hours, then dry in a warm place.

Here are a few hints that I have found of use in my own laundering operations, so as a consistent friend of the Women's Institute I must "pass them on." All of you may not know them:

Let pongee silk become perfectly dry before ironing. It presses out beautifully.

To iron the button edge of a waist, make a very thick pad of ironing sheet or towel, stretch the portion of the waist with the buttons on this, buttons down, then press well. It is very easy to fold the sheet back to make the pad as necessary. The same plan, although quite so thick a pad may not be necessary, will be found excellent for ironing embroidery or braided goods.

Add a little borax and a few drops of turpentine to starch, either boiled or cold. The danger of the irons sticking will be much lessened, and the very faint odor of the turpentine will soon evaporate. If you boil starch for 20 minutes, stirring frequently to prevent burning, the irons are much less likely to stick. While the starch is cooling, stir it from time to time and there will be no thick coating on top.

Now, haven't you some handy hints to pass on? The Ingle Nook is a very good medium for spreading such news, so know, and so helping to make the daily toil a bit easier for someone else.

By the way, Carlotta, who asked for hints along the line of simplifying housework, will be interested to hear that a certain Mr. Charles Barnard has been so much impressed with the need of this very thing that he has instituted a Housekeeping Experiment Station at Darien, Conn., through which some very valuable lessons have already been taught.

Mr. Barnard started from the premise that people do not make the best of their work, that they are wasting their energies or applying them wrongly, and so becoming nervous, irritable and compar-

aimed at for the working man, "eight hours for work, eight for sleep, eight for recreation." Surely this is not too much to ask for any woman, especially if the "recreation" is to consist, as it often must, of sewing, for more or less of the time.

Well, more of this, perhaps, anon.
JUNIA.

WEDDINGS IN SIGHT.

Dear Junia,—For a house wedding, where the bride wears a suit, kindly tell me: How the bridesmaid should dress? Should the groom wear gloves? What flowers for bride? Should guests wear hats? Should bride wear white gloves? And if not asking too much, give me a four or five course menu.
M. B. Oxford Co., Ont.

When the bride wears a suit the bridesmaid must also wear a suit, and both must wear hats. Guests may wear hats as at an afternoon tea. When a suit is worn by the bride it would be better to have the wedding in the church. Pretty, fluffy dresses seem more in keeping with a home wedding.

If bride and bridesmaid appear coated and hatted, all ready for an early departure, the groom must carry hat and



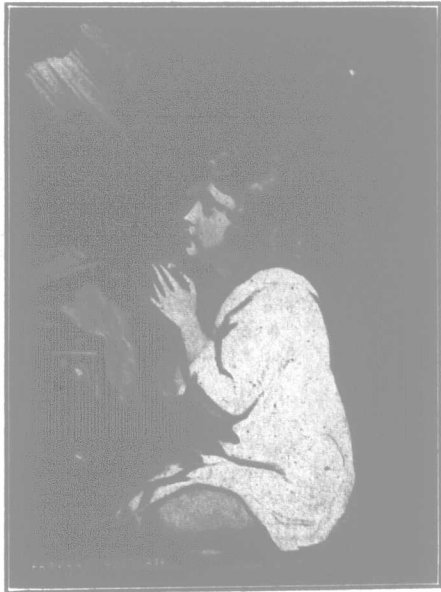
Little Miss Bowles.

From a painting by Sir Joshua Reynolds.—Perry Print.

"As a painter of little 'girlhood,' Sir J. has no rival; no, not even an equal."
—Conway.

actively non-producing so far as useful work is concerned. The high cost of living, he considered, could also be greatly reduced by scientific housekeeping, and so he proceeded to find out and demonstrate a remedy for all the evils.

I do not know all about his experiment yet, but we have written to him for information, so hope to tell you something more before very long. One thing which, I know, he does taboo, is the old-fashioned kitchen with long routes to travel between stove, and sink, and cupboard, and work-table, all the groceries in one place, all the graniteware in another, etc., etc. He would have things that must be used together kept together, e.g., bread-box, bread-board and knife; all materials for baking, pans used therefor, and stove; tea, coffee and cocoa all together with the pots to be used with them; and so on. All this may seem trivial, but it is not so. Indeed, it has



The Child Samuel.

From a painting by Sir Joshua Reynolds.—Perry Print.

gloves, which he hands to the best man just before the ceremony. The usual wedding outfit for him, for a day wedding, is a black cutaway coat for morning or black frock coat for afternoon, gray trousers, white vest, light tie and gray gloves. A silk hat should invariably appear with a frock coat, a Christie with a cutaway coat.

The bride may wear white gloves or very, very light gloves that may tone with her suit.

The groom provides the flowers. The bouquet should consist of one kind of flowers—roses, lilies of the valley, white asters, or sweet peas,—tied with long white ribbons.

A four or five course luncheon menu is given on page 1034.

CROCHET WORK.

Dear Junia,—Norfolk Reader asks for pattern of yoke made of novelty braid. I have one made with the braid and insertion. It is all straight work, made in five pieces; each piece made by itself, then all are sewed together. For 36-inch

been actually computed that the average farmer's wife, in her kitchen alone, walks a distance of 365 miles in the year. When to this distance is added trips to the garden, to the henhouse, to the milking yard, to the pump, some idea of the distances traversed can be arrived at, and the necessity for having everything handy—water to run into the house, wood or coal at hand, all appliances for making labor lighter—appears.

Mr. Barnard's experiment aims at securing for the housewife the division of time that most social reformers have

ribbon is run in just above the braid at top and bottom of the yoke it is certainly a very pretty garment. I am sending a bit of the work.

BLUE BONNET.

Very many thanks, Blue Bonnet. Your reply will also do, perhaps, for Mrs. O. R. L., Bruce Co., Ont., who asked for a crochet pattern for ladies' square neck yoke for a waist.

I saw such a yoke the other day. It was made of very tiny wheels, crocheted in a very simple pattern without the novelty braid, the wheels being then sewn together to form the square yoke. I should imagine a good plan would be to make a fitted yoke of cambric, then sew the wheels together above this to be sure of getting the right shape. The wheels I saw had a good deal of thick work about them, like buttonholing, made by putting the hook over the foundation, drawing the thread up, then drawing a stitch through the two loops, taking a tight slip-stitch at intervals to form scallops. If I can secure a pattern from it I will give it to you, but I should think any pattern for tiny wheels about an inch across would do.

TO REDUCE FLESH.

Dear Junia,—I now turn to you for help. Can you give me some information as to how to reduce my flesh? I am very fleshy and would like to remove some of it. Thanking you in advance.
Kent Co., Ont. ANXIOUS ONE.

I once knew a woman in Chicago who
(Continued on page 1034.)

The Dandelions.

Low hidden by the springing grass
Till April's chilly rains shall pass,
Sleep the dandelions!
Their tender forms—as by a shield—
By green cloaks' close-drawn folds concealed,
Till May-bells gladsome note has pealed,
Prudent dandelions!

Then, when the Southern breeze has stirred
By welcome tinkle long deferred,
Happy dandelions!
Awake, alert, with smiling face,
Each smooths her robe with dainty grace,
Each tiny petal turns in place,
Lovely dandelions!

I greet your advent with delight,
From first brave scout to last small wight
Of dandelions!
What joy those walks with you insure!
You beauties; tipped with gold dust's lure!
Gleaming as suns in miniature,
Fair dandelions!

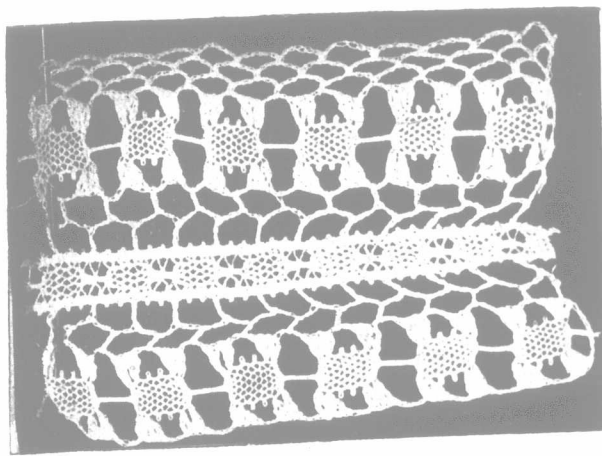
Some call you common—just a weed!
E'en be it so—'tis true, indeed,
My dandelions!
But why their scorn? The sun's clear ray
Is common, too, but can they say
'Tis not most precious, priceless? Nay,
Dear dandelions!

Does this old world a surplus hold
Of beauty, brightness, joy enrolled?
Think, dandelions!
That it should frown on any flower
Whose mission brings such gracious dower
As thine—of sunshine—spreading power,
Loved dandelions!

"We love to share our sunshine—wealth!
Take as you will, nor offer pearl
For dandelions.
We bloom for beggar-maid and thee
Alike, proud connoisseur, and we
Care not which plucks more lavishly."
Say dandelions.
—Norris Barrymore.

Freckles — Superfluous Hair.

With hot summer winds and bright sunshine come freckles. To remove them, use Princess Complexion Purifier, sold by the Hiscott Dermatological Institute, 61 College street, Toronto. This firm also treats superfluous hair, moles, warts, pimples, red nose. Write to them for all information.



Crochet and Novelty Braid Pattern for Yoke.

Epigrams from Peter McArthur.

Every clear statement of truth is a blasphemy against error.

The knowledge of most men is just enough to make them aggressively ignorant.

It is sometimes hard to distinguish the men who are independently rich from those who are independently lazy.

As a Canadian citizen, I feel that in treating any man as an equal, be he a drayman or a duke, I am paying him the highest compliment in my power.

To treat some men as equals is to make them feel that they are your superiors.

A man of cheerful disposition can devise a new set of good prospects whenever he needs them.

Much of the thrift we see practised is simply a combination of meanness and dishonesty.

No man gets more good out of life than the man who has the courage to fail as well as the ability to succeed.

We should strive to grow but not to become perfect.

Perfection is the goal to be aimed at, but growth is the reward. Perfection is the first step of decay.

Argument is absurd. Why should I expect another man to give up his errors for mine.

When th' Fever's in th' Blood.

Lemme tell you this—when th' world gits green,

An' a feller gits ornery, restless, an' mean,

Thar ain't no doctor in eny place
Es kin properly diagnose his case.

The on'y cure fer a man I know
Is t' git right out o' th' town an' go
Where th' wil' ducks swarm, an' th' geese go by,

An' th' trout an' bass are a-jumpin' high;
Th' on'y thing thet'll cure him then

Is t' git away from his feller men,
An' loaf all day by some laffin' stream,

An' fish an' whistle an' sing an' dream,
An' listen t' birds an' bugs, an' hear
Th' voice o' th' woods in his eager ear,
An' smell th' flowers, an' watch th' squirrels,

An' cast a fly where th' eddy whirls,
An' fergit that there's cities an' houses
an' men,

Fergit that he's got ter go back agen;
Fergit, when on moss-grown bank he's curled,

Thet thar's enythin' else in th' whole
wide world

But jes' him, an' th' birds, an' th' bugs
an' things

Thet live right thar where th' wild
stream sings.

—Credit Lost.

The Return.

By Alfred Noyes.

O, hedges white with laughing May,
O, meadows where we met,
This heart of mine must break to-day
Unless ye, too, forget.

Breathe not so sweet, breathe not so sweet,
But swiftly let me pass
Across the fields that felt her feet
In the old time that was.

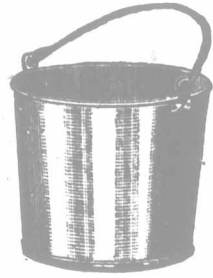
A year ago, but one brief year,
O, happy flowering land,
We wandered here and whispered there,
And hand was warm in hand.

O, crisp white clouds beyond the hill,
O, lavrock in the skies,
Why do ye all remember still
Her bright uplifted eyes?

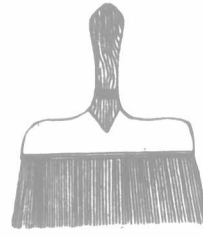
Red heather on the windy moor,
Wild thyme beside the way,
White jasmine by the cottage door,
Harden your hearts to-day.

Smile not so kind, smile not so kind,
Thou happy haunted place,
Or thou wilt strike these poor eyes blind
With her remembered face.

—From the London Daily Mail.



Housecleaning Time.



(By Mrs. W. Buchanan, Grey Co., Ont.)

O, I'll sing you a song of the whitewash brush,
And a song of the scrubbing-pail;
It won't be sentimental gush,
Nor a love-lorn maiden's wail,
But a song of the women who have to work
Mid whitewash, and soapsuds, and dirt,
A song of the time when the house is cleaned,
And a mate for the song of the shirt.
For they rub, rub, and scrub, scrub,
Till their backs and their bones all ache,
And they feel so tired that they scarce can sleep,
But lie half the night awake.

In the spring of the year, when the days lengthen out,
And the mornings are balmy and bright,
It is then that the house-cleaning fever begins,
And rages for days at its height;
And the women folk scrub, and scrub again,
As room after room they go through,
Till never a speck of dirt remains,
And things look as if they were new.
Oh, they rub, rub, and scrub, scrub,
Till their backs and their bones all ache,
And they feel so tired that they cannot sleep,
But lie half the night awake.

The housewife rises at early dawn,
And plans out the mode of attack;
And while some of the things are laid out on the lawn,
There are others set out at the back,
She moves all the stoves and wrestles with pipes,
That never were meant as mates,
And sighs for the good old-fashioned times
When the fires were built in grates.
And she rubs, rubs, and scrubs, scrubs,
Till her back and her bones all ache,
And she feels so tired she scarce can sleep,
But lies half the night awake.

She goes at her work in a determined way,
For, really, she feels that she must,
And marshals her weapons in gallant array,
To make war on the dirt and the dust,
Wall paper and paint, and alabastine,
And all such things as these,
A whitewash brush and fresh-slaked lime,
And plenty of elbow-grease,
And she rubs, rubs, and scrubs, scrubs,
Tho' her back and her bones all ache,
And she feels so tired that she cannot sleep,
But lies half the night awake.

But the men folk grumble, and growl, and grunt,
When the house is dismantled and bare,
For their boots, and their clothes, they have often to hunt,
And can't find them anywhere,
But the women must work, and the women must sweep,
(Let the men say what they will),
They've to work so hard that they scarce can sleep,
While of dust they get their fill.
Oh, they rub, rub, and scrub, scrub,
Tho' their backs and their bones all ache,
And they feel so tired that they cannot sleep,
But lie half the night awake.

Oh, the women who work get little thanks,
And oft-times little pay,
And often they are not liked so well
As the women who only play,
For the women who play get often praise,
When the women who work get none,
But they have their reward in a nice, clean house,
And the knowledge of work well done.
So they rub, rub, and scrub, scrub,
Tho' their backs and their bones all ache,
And they feel so tired that they scarce can sleep,
But lie half the night awake.



How to Act.

(Requested.)

ART II.

As the boy grows older he should be taught that it is the part of the gentleman to move the chair back for the lady whom he is to take in to dinner, provided there are no servants to do this. He should also be taught that he should first offer any dish which he may be expected to pass, to the lady, or to any old person beside whom he may chance to sit, before helping himself. The latter applies also to girls; indeed all children and young folk should have it impressed upon them that, as embryo ladies and gentlemen, they must constantly defer to and give precedence to the old, no matter what the occasion may be.

Now to a few points which pertain more particularly to entertaining.

As a rule, very formal dinners and luncheons are seldom given in the country, hence there is no need of pausing here to give all the details of such functions. A few outstanding points, enough to cover nicely all semi-ceremonious occasions, may suffice.

When giving a dinner, it is scarcely necessary to suggest, it is wise to have all arrangements carefully perfected in good time, to leave no possible chance for confusion after the guests arrive. Thus the hostess may greet her guests without fluster or pre-occupation, knowing that everything is all right.

To begin with, the table should be first provided with a silence cloth of felt or heavy Canton flannel. Over this the carefully-ironed cloth is spread. In the center of the table is then placed the center doily, with a low arrangement of flowers upon it,—at least low enough so that the guests can see one another across it. At each place the knives and forks are laid, the forks to the left, with the points of the prongs up, the knives to the right, also the soup-spoon, bowl up. Two forks and two knives (a large, steel-bladed one, and a dessert knife) are sufficient, unless there are a great many courses.

Near the points of the knives the water glass is placed, and between the knives and forks a plate bearing the napkin and place-card, if place-cards are used, this plate being used to receive the soup-plate. The napkin should be folded square, to show the initial or monogram (fancy foldings are not considered in good taste), and within it should be placed a cube of bread, or a roll.

Individual salt and pepper holders may be used, but larger sets for general use are more in favor, a pair somewhere near each corner of the table. If open salt dishes are used, salt-spoons must be provided.

Upon the table may also appear, from the beginning, little dishes of olives, or small pickles drained dry, celery, and salted nuts, catsups, etc.

Finally, if the dinner is at night, four candles or two small lamps may be placed, a candle towards each corner. The shades of candles or lamps should match the color of the flowers in the centerpiece—pink, if roses are used, yellow with daffodils, yellow or pale green with marguerites, and so on. As these shades may be made of tissue paper, the expense is but trifling, even though changed for each dinner party.

The method of serving need not be given here, as it appeared recently, in detail, in these pages; but we may repeat once more the order of the courses for a formal dinner. Soup or oysters should be served first; then fish (with or without potatoes) and cucumbers; then meat with a vegetable; then a salad with, perhaps crackers; then pudding, followed, if one chooses, by an ice, fruit and bonbons, and coffee or tea.

After the fish course, the hostess requests that the olives and salted nuts be passed.

After each course, the plates and dishes containing the viands of the course are removed, and before the sweets appear, the crumbs are brushed off. No plate or dish must be taken away, however, until all the guests have stopped eating.

After all things, everything must be deliberate. Eating and serving must not be hurried. The company has not gathered simply to "coal up," but to en-

joy a social occasion, therefore conversation and eating should go on together, with conversation taking the lead.

Guests invited to a dinner should be exactly on time, that is a few minutes before the time for which the dinner has been set. A hostess need not wait longer than 15 minutes for a guest. If he arrives after the dinner has begun, he must express his regret to the hostess, who need not arise to receive him (if the late-comer is a lady, she must), but the host arises and takes him to his place.

The hostess, of course, receives her guests in the drawing-room. When dinner is announced, the host leads the way to the dining-room with the lady of honor of the occasion, if there is a special guest, if not, with the eldest lady present, or with one who is at the house for the first time. If the occasion is quite formal, there are equal numbers of ladies and gentlemen, and the gentlemen have been apprised by cards slipped in envelopes and given to them in hall or dressing-room, of the names of the ladies whom they are expected to take in to dinner. When the host leads, each gentleman offers his left arm to his lady, and all pass to the dining-room, the hostess following last with the husband of the lady whom the host has taken. If there is an uneven number, say eight ladies in all, and seven gentlemen, the hostess walks alone.

Sometimes place-cards are used, in which case the guests quietly find their own places.

Invariably the hostess sits down first, then, immediately, each gentleman draws back the chair for his lady, and all sit down.

When the dinner is over, the hostess gives the signal to leave by arising. The gentlemen, of course, remain at their places, standing, to allow the ladies all to leave the room first.

In case of accident, no fuss must be made. The hostess passes over the affair as trivial, and the guest who has been so unfortunate as to spill anything, after a few words of regret, says nothing more. He should not attempt to scrape up the muss which, if serious, is quickly covered by a napkin.

At a formal dinner, relatives, or husband and wife, are never seated side by side.

One must not eat heavily of any dish when several courses are served; neither must one refuse a dish. If one simply cannot partake of any dish that appears, one must at least take a little of it. One can at least play with it in pretence of eating, while really eating some relish taken along with it. Thus one runs no risk of embarrassing the hostess.

When finger-bowls are used, they should be brought in on small plates at the close of the meal. Each should be half-filled with warm water, and should have a rose-geranium leaf or two or three violets floating on top. One merely moistens the tips of one's fingers very quickly in the water, and dries them on the napkin. One occasionally hears of ludicrous mistakes made in regard to finger-bowls. "One poor unfortunate," in a public dining-hall, was observed trying to drink the water; another washed an apple in it; yet another ostentatiously washed his fingers therein.

If one is present for a single meal, one should leave the napkin, loosely folded, on the edge of the table, as it must be laundered before being used again. If one is to stay for other meals, one should fold it unostentatiously in the original creases.

Some confusion sometimes arises as to how certain foods are to be eaten. A rather safe rule to follow, is to use the fork whenever possible, e. g., for pie, soft cake, firm puddings and ices, melon, etc. When eating meat and potatoes, hold the knife with the right hand, the fork with the left. In some places, the fashion of cutting the meat in bits and eating with the fork in the right hand seems to obtain, but the other way is more general in Canada.

Salt should be placed in a little heap on the edge of the plate, and unobtrusively conveyed to the food. To tap a knife with a fork in distributing it, or to flourish a salt-shaker about, are equally in bad form.

Bones, even of chicken, "must never be taken in the fingers," say some authori-

ties; others take exception to this, holding that small bones may be taken up if very daintily manipulated. Perhaps the safer plan is to trust to knife and fork.

Cheese should be cut in very small bits, as needed, and conveyed to the mouth on a small bit of bread or biscuit.

(To be continued.)

The "Farmer's Advocate" Fashions.



7448 Semi-Princess Dress, 34 to 44 bust.



7460 Girl's Tunic Dress, 8 to 12 years.



7465 Child's One-Piece Dress, 2 to 6 years.

7440 Child's One-Piece Dress, 2 to 6 years.



7457 Child's Cap, 6 mos. to 1 or 2 years.



7449 Child's Sun Bonnet, 6 mos. or 1 year, 2 or 4 years.

Please order by number, giving age or measurement, as required, and allowing at least ten days to receive pattern. Price, ten cents per pattern. Address, Fashion Dept., "The Farmer's Advocate," London, Ont.

The Beaver Circle.

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

The Little Blue Boys.

I. Up in Cotton Factory Hollow, Near the ruins of the mill, I once heard a great commotion; And I kept me very still, Softly breathing, scarcely stirring; Until, to my great surprise, A noisy band of fairy-folks Appeared before my eyes.

II. Up and down the wall they clambered, Peeking in each tiny nook, "Playing hide-go-seek" I thought me; Then, I took a sharper look, And discovered they were finding Tiny letters in the wall. In a circle soon they gathered, While one read aloud to all.

III. Many wishes which the birds brought From the children of the town. Some were good but some were selfish; And such made the fairies frown. "How can boys e'er be so cruel!" Cried one pixy in dismay. Then, contemptuously added, "List to this, dear friends, I pray!"

IV. "I wish I could shoot a robin; "What a cruel boy is he!" All the fairies cried in chorus. "Now, my friends, don't you think we Ought to teach that boy a lesson? "Teach him maimed birds suffer pain; "And that God made not His creatures Thus to be for pastime slain?"

V. "I'll become a little bluebird; "When he shoots, then I will fall "But, when in his bag he puts me, "Softly then to you I'll call. "To a wounded bird we'll change him "With the magic blue vervain. "Thus through suffering we'll teach him "To ne'er cause birds needless pain."

VI. "A good plan!" cried all the fairies, And, quick as a cat can wink its eye Two score pixies changed to blue birds And soared high up in the sky. They flew swiftly o'er the city; But, soon back again they came, Bringing their small prisoner with them; And I heard them speak his name.

VII. To the ruins they descended, And to elves again changed they. To the bird whose wing was broken Mockingly I heard them say, "Little boy how do you like it Now that you're the wounded bird?" "O, I did not know it hurt so," Was the answer which I heard.

VIII. "Now, that you have learned a lesson, We will heal your broken wing; "You may fly back home to-morrow And a song to your folks sing." "But, I'm 'fraid of little brother; For an air-gun he has too. "Can't I be a boy again please? "O, dear me, what shall I do."

IX. Cried the frightened little fellow, But, the pixies laughed and danced; Till, at last, one rich-robed fairy, Much more kindly at him glanced. "My heart aches for him," she murmured "Don't you see he's not to blame? "For, 'twas Santy brought the air-gun, "When last Christmas time he came."

X. Said the queen of Old Dorp fairies While she by the bird knelt down. With her wand she lightly touched him; Then, above him held her crown. And though hardly true you'll think it, A boy sprang up with a gun. Hat in hand, he bowed politely, Thanking her for what she'd done.

XI. At her feet he placed his air-gun; And, I heard him softly say, "Never more will I shoot birdies! "So, please throw this gun away." Greatly pleased, then, were the fairies, And around him danced with glee. Till one said, "Come; we must go now, But, we'll first set the boy free."

XII. Soon I saw him stand alone there, While the fairies skipped away. He looked like Gainsborough's "Blue Boy"; For, they'd changed his suit that day. All his playmates gladly joined him, And pledged ne'er to kill a bird. Now they're called "the Band of Mercy Little Blue Boys," so I've heard.

XIII. If some day you'd like to join them, And become a Blue Boy too, Wear a star or bright blue ribbon, Matching well the blue-bird's hue, And a note write to the fairies Who live near the old mill wall; Tell them you have joined the boys' club To protect the birds; that's all. —Corinne Eloise Campbell, in "Our Dumb Animals."

Ontario Children Inter-ested.

From the same issue of "Our Dumb Animals" in which appeared the poem, "Little Blue Boys," has been taken the following item:

"Miss E. Case, a public school teacher in Thessalon, Ontario, writes to tell us of the cruelty practiced upon dogs and horses in that small lumbering town, and in the same letter sends the signatures of thirty-nine children to our Band of Mercy pledge. We wish every school teacher in Canada would follow Miss Case's fine example and get all the children interested in being actively kind to animals."

We hope the Band of Mercy is still active in Thessalon (the item was published some time ago), also that the movement has been spreading to other schools. Wouldn't it be fine if there were a Band of Mercy in every school in Canada? How very much happier the birds and animals would be if all boys and girls were kind to them and tried to protect them in every way.

A Competition.

Find three wild flowers or weeds (which, after all, are wild flowers also, aren't they?), draw a picture of them, then write a little essay telling where you found the plants, their names, the kind of soil in which they grew, etc. The prizes which we will give for the best drawings and essays this time will all be nature-study books. They are fine. Won't you try hard to win one? All compositions, etc., must be received at this office not later than June 15th. Be sure to address to "The Beaver Circle," "The Farmer's Advocate," London, Ont.

Senior Beavers' Letter Box.

Dear Puck and Beavers,—I enjoyed reading your letters so much that I was tempted to write one myself. My father has taken "The Farmer's Advocate" for five years, and he claims that it is the best magazine; he enjoys reading it every week. I live on a big farm in the township of Usborne and the county of Huron.

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terested in it. A few years ago a brown wren built its nest under our veranda roof. It became very tame, and at last it would eat the bread crumbs I put out for it.

For pets, I have a little calf which I call Blossom. She is very tame, and will eat corn from my hands.

Well, I guess I must close for this time. Wishing the Circle every success.

EVA REESOR (age 13, Jr. IV.).
 Cedar Grove, Ont.

Dear Puck and Beavers.—This is my first letter to the Circle. I live about three miles from the city of St. Thomas. I have about two miles to walk to school. I like to go to school very much. I would like to tell you about a bird I found last summer. It was a little brown bird with lighter brown on its wings. The bird built its nest about six inches down in the ground. Its eggs were small, white balls, with brown specks on them. I came back two weeks after and found little birds there. I wish someone could tell me what kind of a bird it might be.

MAY MCCREDIE (age 11, Jr. IV.).
 St. Thomas, Ont.

Probably the bird was one of the sparrows, but it is impossible to tell without a much more accurate description. . . . You are Number 9 on the Gardening Competition list, May.

Dear Puck and Beavers,—I live with my brother-in-law at Mayfield, and as he has taken "The Farmer's Advocate" for quite a while, I have grown very interested in your Circle. I have three-quarters of a mile to go to school. We live on the third line east, on lot 18, in Peel County. We have fourteen cows and thirteen calves, seven horses and two colts. There are two hundred acres in the whole farm, forty of which are in fall wheat. I expect to go out West to Saskatoon next summer to live with my mother. I will miss "The Farmer's Advocate" for the Beaver Circle. When I get home from school I feed the hens and hunt the eggs and a few other chores. We get about thirteen eggs a day, and make about sixty pounds of butter a week. I must close, wishing your Circle every success.

EDWARD EARLY
 (Age 11 years, Jr. IV.).
 Mayfield, Ont.

Dear Puck and Beavers.—This is only my second letter to your Circle, Beavers. I go to school every day, and I have about a mile to walk. I have not missed a day this term. Our teacher's name is Miss Clarke; her father and mine are first cousins.

I learned to swim and ride the bicycle last summer. It is great fun.

My father has taken "The Farmer's Advocate" for a great many years, and we never destroy any of them.

Our school has been closed for three months on account of smallpox. I did not have it, but my seat-mate had. It was very light. Hoping this will escape the w-p. b., I remain,

M. JOSEPHINE CLARK
 (Age 12 years, Grade VII.).
 Bayhead, Colchester Co., N. S.

Dear Puck and Beavers,—I was twelve years old on the seventh of May, and I am in the Senior Third Class in school, but I never went in the winter yet, as I have two miles and three-quarters to go. We have the telephone in our house, and I like talking through it.

I have started to gather a library. I have about eight books now. I read the book that was sent to me for sending the picture of my dog, and enjoyed it very much.

My father and mother are both dead, and I live on the farm with my uncle. He has taken "The Farmer's Advocate" for over twenty years. I like reading the Beaver Circle letters. We have twenty-four sheep and eight lambs. I have one sheep for a pet. I also have a colt.

ELIZABETH HUGHES
 (Age 11, Book III.).
 Hanover, Ont.

You will find collecting a library very delightful, Elizabeth.

Dear Puck and Jolly Beaver Circle.—I

We live five miles from the town of Exeter, and two miles from school. I am in the Senior Fourth Class, expecting to try Entrance a year from this June. There is a river running through our farm called the Sauble. It was dredged out two years ago. I always go fishing on the twenty-fourth of May. Well, I guess my letter is getting long. Wishing the Circle every success.

LILLIE M. SELVES
 (Age 12, Book Sr. IV.).
 Lumley, Ont., R. R. No. 1.

Dear Puck and Beavers,—This is my first letter to your charming Circle. I will not make it too long. My father has taken "The Farmer's Advocate" for about 25 or 30 years, and likes it fine.

We live about three miles east of Guelph, but I do not go to school there, as Arkell village is only two miles east of us, so that is where I go to school. We have a gentleman teacher; his name is Mr. R. Boal. We have a library at our school which contains about six hundred books. I will close, hoping this will escape the w-p. b.

EARL CARTER (age 12, Jr. IV.).
 Guelph, Ont., R. R. No. 3.

Dear Puck,—This is my first letter to the Beaver Circle. I live on a farm, and go to school nearly every day. Our teacher's name is J. R. Strangeways. I just passed into the Junior Fourth Class at Easter holidays. I was thirteen years old on the twenty-first of April. I have two brothers. The oldest brother, who is twenty years old, works the farm, while my other brother, who is seventeen years old, works at the real-estate business, and has been taking "The Farmer's Advocate" this year. I have a horse named Billy. Billy is a bay horse. I often harness him up and drive my mother over to see some of her neighbors on Sunday afternoons. As my letter is getting very long, I must close now.

JENNIE PHILLIPS
 (Age 13, Book IV.).
 Alberton, Ont., R. R. No. 1.

Dear Puck and Beavers.—This is my first letter to your Circle, so I thought I would like very much to say. I read the letters that the other little Beavers write, but never picked up enough courage to write till now. My father has taken "The Farmer's Advocate" for about fifteen years. I live on a farm of about seventy acres. I read "The Farmer's Advocate" and was very interested in Elliott's letter, and was very glad to see

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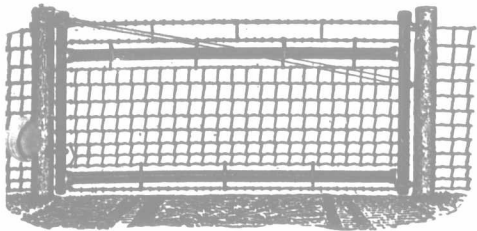
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PLEASE MENTION THE ADVOCATE.

have read so many interesting Beaver letters that I thought I would write also. I am a farmer's daughter, and I live on a farm about six miles from Lake Huron. I often go there in the summer. I am going to enter the Garden Competition this year, so Puck, please add my name to the list. I have four sisters; three of them are older than myself and go to High School. My youngest sister and I have a pup which we call Buster. She is always into something. I am going to tell you what she did one day when we were not watching her. She went out to the barn and bit the head off a duck, and she has killed several hens. One day mother caught her at it and gave her a good whipping for it, and she never did it again. We are teaching her to pull us in the little wagon this summer.

Now, I am going to tell you about our sheep. One Friday night some dogs came and worried them pretty badly, and killed one, and one the next Monday. We have eight little lambs. Papa sold one for Easter, but it was not one of the eight. It weighed 51 pounds. I was sorry the day it went away. It would play with us every day we went to the barn if we would stop and play with it. I guess my letter is getting too long, and I will close, wishing the Beaver Circle much success.

ISABEL YOUNG.

Carlow, Ontario.

You are twelfth on the garden list, Isabel.

Beaver Circle Notes.

Irene Denham (15), Granton, Ont., would be pleased if some of the Beavers would write to her. She is the sole housekeeper at her home, and has charge of little motherless brothers and sisters.

Ettie Baker (age 13), Greensville, Ont., would like Edna Simpson to write to her.

Eulah A. Reed (age 11), North Hatley, Que., wishes Fannie H. Hilborn to write to her.

Louise Kelly (age 12), Ayr, Ont., wishes to correspond with some of the Beavers.

Riddles.

"I went to the bush and got it. I looked all around and could not find it. The more I looked the less I liked it, but I brought it home in my hand. Ans.—A sliver."—Sent by Marion Hall.

"Why didn't Moses take pigs into the ark with him? Ans.—Because he didn't go himself; it was Noah."—Pearlie Hall, Markdale, Ont.

Esther Hanna, Kirkton, Ont., sends two riddles for the Beavers to answer: (1) There was a thing when three weeks old, when Adam was no more; before that thing was five weeks old, Adam was threescore and more.

(2) What is it that goes on four in the morning, two at noon, and three at night?

The Auction: A True Story.

By Lyman G. Smith.

At a low sunken doorway an auctioneer stood,

And he and the crowd were in jocular mood.

For before him about on the walk was displayed

The goods of a debtor whose rent was unpaid—

Old-fashioned and shrunken, disfigured by wear,

Unvarnished and broken beyond all repair.

"A collection of articles here I present Such as never to hammer of auctioneer went.

Of their value as relics I need but remark

That Noah secured them to furnish his ark.

A garden unpeopled this world might have smiled

Had these not the gloom of that voyage beguiled.

"Now, here is a bed so decrepit and old It leans for support as it stands to be sold.

Its tremulous wails of rheumatic distress

Tell the twinges of pain that it cannot suppress. Who bids for an article useful and cheap, A bed that makes music to lull you to sleep?

"Here's a fine chest of drawers. Allow me to state 'Twas the first Adam made when he left Eden's gate.

Mother Eve kept her bonnet in this; while in that You'll yet find the band of his best Sunday hat;

While here, as a proof that it was once Mother Eve's, Are a few relics left of her garment of leaves.

"Here's a chair; and you'll say, when it closely you view, That Adam could never have made more than two.

On that he perched Abel; on this he raised Cain; That this is the cane chair is perfectly plain.

It will rock without rockers, for 'mong its good points Are double, back-acting and flexible joints."

While he jested and jeered without ceasing, the crowd, As they bid or they listened, laughed hearty and loud.

But, apart, on the margin, dejected and sad, Stood a grey-headed woman all shabbily clad.

No smile at the auctioneer's wit could you trace, But the tears trickled fast down the wrinkled old face.

For she thought of a day when that chest was her pride, And the one precious boast of a new-wedded bride.

She thought of the gown and the bridal array That once nestled there neatly folded away.

Those few scattered leaves were a love-gift of old; But the hand that bestowed them was crumbled to mould.

And this was the chair where that loved one reposed When darkness his long day of labor had closed,

When, with strength in his arm and with hope in his breast, In the struggle of life he had fought with the best.

And this was the chair where he, day after day, Sat pallid and strengthless and faded away.

And this was the bed, when no more he could rise, When the light of another world shone in his eyes

And illumined his cheek, where he sank down at last And lay while the years drifted languidly past;

Till one dismal morning, here clasped on his breast, The thin, shrunken fingers at last found a rest.

On that old creaking couch, after day's weary round,

For forty long years he a rest nightly found;

And now on that couch, after life's weary close, He found from his toil an eternal repose;

No more the lip quivered with half-suppressed pain, No pang broke the peace of his slumber again.

When the auctioneer next took a wee baby's chair— The one single piece yet untarnished by wear—

Again rose the vision of ne'er-forgotten years, Again burst the stream from the fountain of tears,

And there broke from her lips such a moan of distress That it told more of anguish than words could express.

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There were only a few things to divide—just a small farm and a few cattle, but the family could not agree. The little place had to be sold quickly for less than it was worth, and the family is hopelessly divided.

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THIS WASHER MUST PAY FOR ITSELF.

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it, I wanted a fine horse, but, I didn't know anything about horses much. And I didn't know the man very well either.

So I told him I wanted to try the horse for a month. He said "All right," but pay me first, and I'll give you back your money if the horse isn't all right."

Well, I didn't like that. I was afraid the horse was not "all right" and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now, this set me thinking.

You see I make Washing Machines—the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it. But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over half a million that way. So, I thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in Six Minutes. I know no other machine ever invented can do that, without wearing the clothes. Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it don't wear the clothes, fray the edges, nor break buttons, the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might.

So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight, too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 60 cents a week 'till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer that washes clothes in six minutes.

Address me personally—G. B. Bach, Manager, 1900 Washer Co., 357 Yonge street, Toronto.



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In the lone, happy days of the long, long ago,
Had she pleaded with heaven a child to bestow.
The Lord heard her cry, and, in answer of those
Best-beloved by the angels, the dearest He chose.
Its hair into ringlets their hands had caressed,
Its cheeks into dimples their fingers had pressed.

Its face wore the joy of the glad scraph throng
When they circle the altar and burst into song;
Its brow had been smoothed by the Lord's shining hand,
Its lips had been touched with His red altar-brand.
The heart-winning ways that endeared it above
Awoke all her dormant affection and love.

And this plain little chair for the child was a throne
Where it prattled and sang in a low musing tone
Of the wonderful world it had dwelt in on high,
And the glad-pinioned years flitted tranquilly by
In a radiant clime of ineffable peace,
For she dreamed that her happiness never could cease.

But all that the angels can suffer of pain,
They felt, and they pined for their darling again,
So, downward they stole at the close of the day
Where restless and flushed on the pillow it lay.
It slept while she fondled each pain-moistened tress—
It woke at the touch of an angel's caress.

The casket was broken, the treasure was gone;
Though childless and widowed she long struggled on;
But in all of her poverty, hunger and pain,
Her lost baby's chair she contrived to retain.
But now, as she gazed through the mist of her tears,
'Twas the one verdant plot in the desert of years.

The chair he uplifted; the crowd nearer pressed,
Expectantly waiting the auctioneer's jest;
But his ear caught the cry and the moan of dismay,
And the half-uttered jest on his lip died away:
For he saw on her face the mute look of despair,
And he read at a glance all its history there.

The hammer he dropped. From his station he went,
He flung to the landlord the keys of the rent,
The chair in the hands of the mother he pressed,

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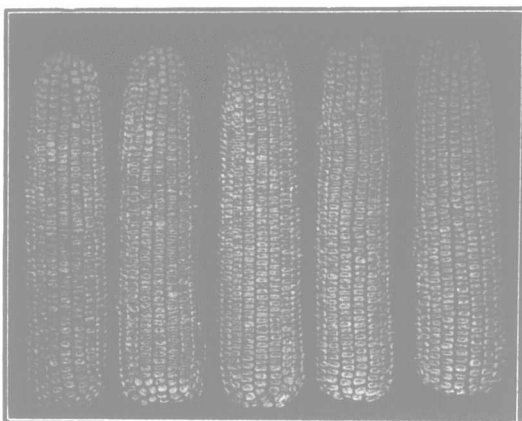
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SALT

Ask your dealer for **RICE'S SALT**

The old reliable brand. It is purer than any other make, and you get better satisfaction and value. Besides, you know it is made from Canada's purest brine.

FOR ALL PURPOSES
North American Chemical Co.
CLINTON, ONTARIO

Who hugged it convulsively close to her breast,
And silently lifted her tear-streaming eyes
Where gratitude mingled with joyful surprise.

The crowd saw the act and they gave him a cheer—
(If the chord's rightly touched it will ever ring clear)—
He found her a shelter from tempest and cold,
And it lacked not her store of the treasures of old.
With his hand and his heart moving thus in accord
He felt something higher than earthly reward.

Visitor—"Do you think a four-leaf clover is a sign of luck?"
Farmer—"Yep. There ain't no doubt in my mind that anybody with time to fool away lookin' for 'em is bound to be purty lucky."

The Rink Hog.

(A new species of fauna occasionally found in skating rinks.)

I am a rink hog—hooray!
And I cleave my impetuous way
Through the crowd on the rink,
Who stagger and shrink,
And make for the rail in dismay.
But if in their flurry they fall
The weakest must go to the wall—
Of course they'll get hurt,
If they're not more expert—
That isn't my business at all.

I am a rink hog—hurroo!
And don't I enjoy myself, too!
I'm a swank on my skates,
And my dash culminates
In a grape-vine, an 8, or a Q.
I can twist and revolve like a top,
With a lateral scrape I can stop;
And when others collide,
Through the litter I glide,
And leave 'em all over the shop.

I am a rink hog—what oh!
There's panic wherever I go.
I dart round the floor
To the tune of the roar,
And for manners I don't care a blow.
Let cavaliers frown as they may,
Of the rules of the rink I make hay,
And couples in front
Had best do a shunt,
For I am a rink hog—hooray!
—J. Pope, in Canadian Century.

DIFFERENT COMPLEXION.

A stranger in Boston was once interested to discover, when dining with friends, that the dessert he would have classed as cream layer cake at home was known in Boston as Washington pie. The next time he lunched at a restaurant he ordered the same thing; but the waiter put before him a rather heavy-looking square of cake covered with chocolate. A puzzled expression came over his face as he said reprovingly: "I ordered Washington pie, waiter."

"That is Washington pie, sir."
"Well," expostulated the disappointed man, "I did not mean Booker T. I want George."—Everybody's Magazine.

At the season of the year when our own, or somebody else's, umbrella is our constant companion, we may spare a grateful thought for Jonas Hanway, the man who 150 years ago had the moral courage to carry the first gamp ever seen in the streets of London. He was the object of very impolite attentions from the cabmen of the period, who feared that the coming in of that strange portable shelter would ruin their business. It was Dr. Johnson who said of Hanway, "Jonas acquired some reputation by travelling abroad, but lost it all by travelling at home."

"I, sir," said the demonstrative candidate, "am a servant of the people."
"Gosh!" replied Farmer Cornstossel, "ain't this servant problem gettin' to be awful!"

News of the Week.

The Chinese Premier has resigned.

Forest fires have been raging in the Yukon Valley.

The body of Frederick VIII., King of Denmark, was interred at Roskilde on May 24th.

The Farmers' Binder Twine Company's plant at Brantford, Ont., was struck by lightning and burned on May 20th.

Great damage was caused by wind and flood during a fierce electrical storm that visited Collingwood, Ont., on May 24th.

The Monteith Experimental Farm, Northern Ontario, has been given over to the charge of the Ontario Agricultural College.

Canada and Australia were awarded gold medals for collections of fruit at the International Show, London, Eng., which was held last week.

The Canadian Association for the Prevention of Tuberculosis met in convention in Toronto last week. The necessity for educating the public in regard to preventive measures was emphasized, particularly the necessity of fighting flying dust and dirt, prolific agencies in the spread of the disease.

Dr. Sain J. Meltzer, of the Rockefeller Institute for Medical Research, New York, recently restored to life two animals which had been put to death, and which were dead had not his method of respiration been applied immediately. He says that it should be tried in all cases of death.

How Much Fresh Air.

Fresh air, and especially fresh air in the bedroom at night, has by dint of incessant warning and preaching at last become the goal of all thinking people.

Hygiene is so powerful a goddess today that even custom and fashion must bow down to her, in theory if not in practice. There is danger here, for when people begin to credit themselves with virtues they do not possess, or to mistake decent theories for proper practice, they cease to advance in wisdom or health.

Some people take to the fresh air only as a timid bather takes to the water. They have heard that it is good for them and they think that they think it is; but in reality they detest it and regard it as full of threat and peril.

In a cross-examination of any dozen people as to what each regarded as a ventilated bedroom, the results would vary from a room too cold for a self-respecting St. Bernard dog to sleep in down to one to which air leaked in from an open crack in some adjacent bathroom or corridor.

Sometimes inquirers show by their questions that they really desire to do right, hygienically, if only they knew how to begin. For these there is a motto for their banner—"Be bold, be bold, and evermore be bold!"

What constitutes bad air in a bedroom? The answer to this is any air that has been rebreathed.

To what extent should the window be kept open in cold weather for one in ordinary health? The answer to this is, to the same extent that it should be kept open in all weather and in all states of health—wide. Furthermore, when it can possibly be managed, window should be spelled with an "s." Fortunate is the sleeper who has one on at least two sides of his room. Let such a person fear no drafts, for these are the friend of mankind. Bad air and drafts do not live together. Neither do colds and drafts, hard as many people find it to believe this.—The Youth's Companion.

FOR THE JUNE BRIDE---



THIS CHARMING GIFT---

Louis XV.—Style 80.

A Sherlock-Manning 20th Century Piano
"Canada's Biggest Piano Value"

June is here—beautiful, balmy June—the month of Brides and Roses.
 So let this remind you of that Bridal Gift you have to select.

The Bride is keenly alive to everything that is beautiful about her new home, and what gift so **suitable** or so truly **satisfying** as a first-class piano? It combines beauty and sentiment with utility, and just what the Bride herself would be likely to choose. Make it a **SHERLOCK-MANNING 20th Century Piano!** Its beautiful appearance will not vanish. Its rich, resonant, singing tone will endure. For the **SHERLOCK-MANNING 20th Century Piano** is built honestly and built to last. Yet—its price is moderate.

You'd best select that Bridal Gift Piano NOW and save \$100.00.
Write us to-day for full particulars and handsome art catalogue.

Sherlock-Manning Piano & Organ Co.
 London (No Street Address Necessary) Canada

POULTRY AND EGGS

BUFF LEGHORN EGGS—\$1.00 per fifteen. J. E. Griffin, Dunnville, Ontario.

BARRED ROCK EGGS—From good, strong, healthy, vigorous birds, and barred to the skin, mated especially for winter laying, \$1 per 15, or \$2 for 40. Hens have large orchard run. Plenty of exercise should guarantee a good hatch. Harvey Oulp, St. Catharines, Ontario.

BUFF ORPINGTONS—Winners at Guelph Winter Fair, 1911, of 1st cockerel, silver cup; specials for best shape, best male, best bird, best three cockerels and 2nd utility pen (all classes competing). Over 60% egg yield since December last. Eggs from pens headed by above best three cockerels, \$5.00, \$3.00 and \$1.50 per setting of 15. Mrs. E. D. Graham, Queensville, Ontario.

BUFF ORPINGTON EGGS that will hatch; 9 chicks guaranteed with every setting. Three splendid pens, \$1.00 per setting. Special prices on incubator lots and fancy stock. Hugh A. Scott, Caledonia, Ontario.

CUT PRICES—Ancona eggs, \$6.00 per hundred; \$1.00 per fifteen. Buttercups' eggs, \$2.50 per fifteen, from prizewinners. Baby Buttercup chicks, \$4.50 per dozen. Ancona chicks, 15 cents each, any quantity. Big payers; winter layers. Edward Apps, V. P. Ancona Club, Box 224, Brantford, Ontario.

CLARK'S FAMOUS BUFF ORPINGTONS—Exhibition egg strains. Winners at New York, Chicago and Canadian leading shows. 12 breeding pens; eggs, \$1.00 to \$10.00 per 15. Incubator eggs, \$6.00 per 100. Satisfaction guaranteed. Free illustrated catalogue. J. W. Clark, Gainsville, Ontario.

EGGS—S.-C. White Leghorn, heavy layers and prizewinners, 75c per 15. A hatch guaranteed; \$2.50 per 100. Geo. D. Fletcher, Binkham, Ontario, Erin Sta.

FOR SALE—Eggs from prizewinning Golden and Silver Sebrights, Black Rose-combs and Dark Cornish Bantams and large Dark Cornish Game. M. B. Cosby, Smithville, Ont.

HATCHING EGGS—Single-comb White Leghorns. Size, vigor, productiveness; unexcelled eggs, dollar setting; four dollars hundred. E. W. Burt, Paris, Ontario.

ROSE-COMB RHODE ISLAND REDS—Eggs for hatching, one dollar per setting. Fred Colwell, Cooksville, Ontario.

SINGLE-COMB WHITE LEGHORNS—Disposition of our fine breeding pens. Five hens and cock, eight dollars. E. W. Burt, Paris.

SINGLE-COMB ANCONAS, bred to lay, win and pay. Eggs, \$2 per thirty. Guaranteed fertile. James Snyder, Wales, Ontario.

WHITE WYANDOTTE EGGS—From choice matings. \$1.50 per 30; \$3.50 per 100. W. A. Bryant, Cairngorm.

WHITE WYANDOTTES EXCLUSIVELY—Bred for heavy egg production and standard points. Eggs: \$1.00 per 15. Good hatch guaranteed. Thos. F. Pirie, Banner, Ont.

WANTED TO PURCHASE—Regular weekly supply of eggs, which must not be more than one week old. Cash paid on delivery. J. D. Arsenault, 371 Seigneurs, Montreal.

\$6.41 PER HEN—Write for our beautifully illustrated catalogue. Photos from life. B. P. Rocks, White Wyandottes, E. C. R. I. Reds, S.-C. White Leghorns. Eggs: \$1.50 per 15; \$2.75 per 30; \$7.00 per 100. L. R. Guild, Box 16, Rockwood, Ont.

EGGS EGGS EGGS
PLEASANT VALLEY FARMS

For hatching: White Wyandotte, \$4 per 100; special mating, several prizewinners, \$2 per 15; S.-C. White Leghorns, \$4 per 100; special mating, \$1.75 per 15 eggs. Grand laying strains, both varieties. **GEO. AMOS & SONS, MOFFAT, ONTARIO** Private phone Milton.

SINGLE COMB BROWN LEGHORNS
 Eggs for hatching, \$1.00 per 15. Bred from good laying strains.

WM. BARNET & SONS, LIVING SPRINGS
 Fergus station, Ont., G. T. R. and C. P. R.

DELAWARE FARMS—Money-making farms throughout the entire State, \$15 an acre up; live stock, implements and crops often included. We offer best bargains, and pay buyer's railroad fare. Catalogue free. Ford & Reis, Inc., Dept. 110 Wilmington, Del.

IMPORT YOUR BULBS and Perennial Plants direct from Holland at half the regular prices. Get our import bulb list at once. Morgan's Supply House, London, Canada.

VANCOUVER ISLAND, BRITISH COLUMBIA, offers sunny, mild climate; good profits for men with small capital in fruit-growing, poultry, mixed farming, timber, manufacturing, fisheries, new towns. Good chances for the boys. Investments safe at 6 per cent. For reliable information, free booklets, write Vancouver Island Development League, Room A, 23 Broughton Street, Victoria, British Columbia.

WANTED—A good steady man to act as foreman in charge of a large herd of milk cows. Must have experience and be familiar with balanced ration feeding. Address: Elmhurst Dairy, Montreal West, P.Q.

WANTED—Herdsmen for Shorthorns. Married man preferred. W. A. Dryden, Brooklin, Ontario.

WANTED—Cash paid for Military Land Grants in Northern Ontario. Please state price and location. Box 88, Brantford.

Jersey Bull Wanted
 Must be young, quiet and registered in A. J. C. C. State breeding and quality, also price. Address: **THOS. O'BRIAN, BRUNSWICK, ONTARIO**



For the Immigrant

The Immigration Department of the Canadian Northern Railway have inaugurated special facilities for the benefit of Immigrants travelling by the Royal Line of Steamers.

Organized parties in charge of experienced Conductors are arranged for the benefit of those who desire to travel in the care of responsible representatives of the Immigration Department.

BOATS MET AT HALIFAX AND QUEBEC

The Representative of the Immigration Department, thoroughly familiar with the customs and conditions of the Dominion, will meet the Royal Line of Steamers for the purpose of advising Immigrants and of conducting parties to various points in the interior, such as Montreal, Toronto, Winnipeg, etc.

SHIP'S MATRON

An Officer of this title has been appointed to each boat for the special benefit of third-class passengers. The sole duty of the Ship's Matron is the care of women travelling with children and young women travelling alone, also young children. For further information write:

T. Howell, General Emigration Agt., Canadian Northern Bldgs., Toronto, Can.

THE INGLE NOOK.

was under treatment for the reduction of superfluous flesh. She was required to walk seven miles a day, and was put on a diet which, as far as possible, excluded starchy foods. It would, perhaps, be necessary to consult a physician in regard to the matter. If one's heart were weak one could not, perhaps, stand so much walking. A doctor would be needed, too, to determine just the diet one might venture upon with safety. The right diet for one person might be very wrong for another.

MORE QUERIES.

"Blue Eyes," Elgin Co., Ont., asks for "a description of a wedding dinner for an August wedding. "Also," she asks, "would it be all right to have young men waiters? In what order should the courses be served, as I intend to have turkey?"

An August wedding dinner should be very easily managed, as there will be such an abundance of flowers, fruits and vegetables to choose from at that time of year.

The big fluffy asters, white and very light pink, will be out then, and you can use them for decorating the tables, if you like. Sweet peas would also be dainty, if you can procure masses of them. The courses might consist of:

Clear Soup.	
Fish.	Cucumbers.
	Turkey.
Boiled Tongue.	Potatoes.
Tomato Salad.	Chicken Salad.
	Nut Sandwiches.
Ice Cream.	Cakes.
Fruit.	Bonbons.
	Coffee.

You may vary this in many ways, providing you keep to the main courses,—soup, fish, meat, salad, sweets. Many, indeed, omit the fish course altogether. You may serve a hot vegetable and cranberry jelly with the turkey if you choose, and omit the chicken salad.

It would be very nice to have young men for waiters, if more convenient.

HAIR DRESSING—APPLE SAUCE CAKE.

Dear Junia,—Would you kindly answer a few questions? How long should a girl 18 years old have her dresses, and how should she do up her hair? It is only to her waist line.

Here is a recipe for an apple sauce cake: Beat to a cream 1 cup of sugar, and $\frac{1}{2}$ cup of butter. Add salt to taste, 1 cup raisins; cinnamon, cloves, nutmeg

Why Wood Silos are the Best

Many Government experiment stations, especially in the United States, have made exhaustive experiments as to the most suitable material for silo construction, and the general conclusion seems to be expressed in the following statement from a recent experiment station bulletin: "A round, wooden stave silo, taking all things into consideration, has proved most satisfactory."

The reason for this is simple.

The very best silage is obtained when the whole mass is kept at an even temperature and all air excluded. Cement, stone or brick silos conduct away the heat generated in the silage, and thus prevent proper fermentation; furthermore, both cement and brick are porous, and permit the air to get at the silage, thereby causing it to spoil.

The many experiments and tests made have gone to show that frequently as much as one-third of the silage in a cement or brick silo will be spoiled and unfit for use, while in properly constructed wood silos the only spoilage will be a little on the top.

Due to our colder Canadian climate wood is the only material suitable for silo construction. If you have any doubts on this point write to us, and we will be glad to give you further information on this vital subject, and show you why it is to your interest to erect an Ideal Green Feed Silo in preference to any other kind, not only from the standpoint of first cost, but also from the standpoint of more satisfactory service.

We are the oldest and best known silo manufacturers in Canada. Thousands of our Ideal Green Feed Silos are in use on many of the most prosperous farms, and they always give entire satisfaction.

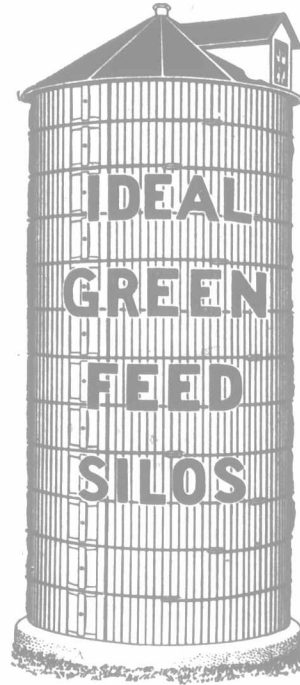
Send for our new Silo Book. It will explain fully why the

Ideal Green Feed Silo Is the Best Wood Silo

DE LAVAL DAIRY SUPPLY CO., LIMITED

LARGEST AND OLDEST SILO MANUFACTURERS IN CANADA

173 William Street, MONTREAL. 14 Princess Street, WINNIPEG.



to taste; 1 cup of apple sauce with 1 teaspoon soda in $\frac{1}{2}$ cup of cold water. Beat well, and pour over sugar and butter; add $1\frac{1}{2}$ cups of flour. Bake 45 minutes. BROWN BOW.

Peterboro Co., Ont.

Part the hair directly in the middle or slightly to one side, twist it into loose puffs over the ears, and arrange into three coils low on the head at the back. A girl of eighteen years should wear her skirts ankle lengths.

STARCHING COLORED GOODS—MINT POTATOES—CREAM SODA.

Dear Junia,—I get many useful hints and recipes from your valuable paper, so I thought I would take the liberty of writing to you for a little information myself. I have a black swiss muslin dress with white spots; could you tell me how to stiffen it? I think the ordinary starch would make it look patchy. Thanking you in return, I will send two good recipes:

Mint Potatoes:—Peel and slice $\frac{1}{2}$ dozen or more potatoes, then place a layer of them in a granite dish and sprinkle with salt, pepper and some dried mint. Place another layer and sprinkle the same, and so on, until dish is nearly full, then pour in enough milk to cover them and bake in oven from 1 to $1\frac{1}{2}$ hours. This makes a nice supper dish.

Cream Soda, Summer Drink:—2 pounds white sugar, 1 quart or little more of boiling water, whites of 2 eggs, 1 teaspoon vanilla, 5c. packet of tartaric acid. Pour water over the sugar, add whites of eggs, vanilla and tartaric acid; beat all together for a few minutes, then bottle ready for use. When required put 2 tablespoons to a glass of water; add a pinch of baking soda before filling the glass. FLORINA.

Carleton Co., Ont.

Ordinary starch would not do at all for your black swiss dress. There is a starch made especially for colored goods. If you cannot get it in your local stores you could probably get it in Ottawa, which is your nearest city, is it not? The following method has also been found useful for stiffening black and other dark colors: Dissolve 1 oz. gum arabic in cold water and pour over it a quart of boiling water,—at least use this proportion. Dip the garment in this, let it dry in the shade, then sprinkle slightly and iron on the wrong side. Two ounces of the gum are sufficient for a whole dress. When ironing be sure not to have the iron too hot.

Common starch, or skim milk, may be used for navy blue goods (if not too dark in color) if made very blue by adding ordinary laundry bluing.

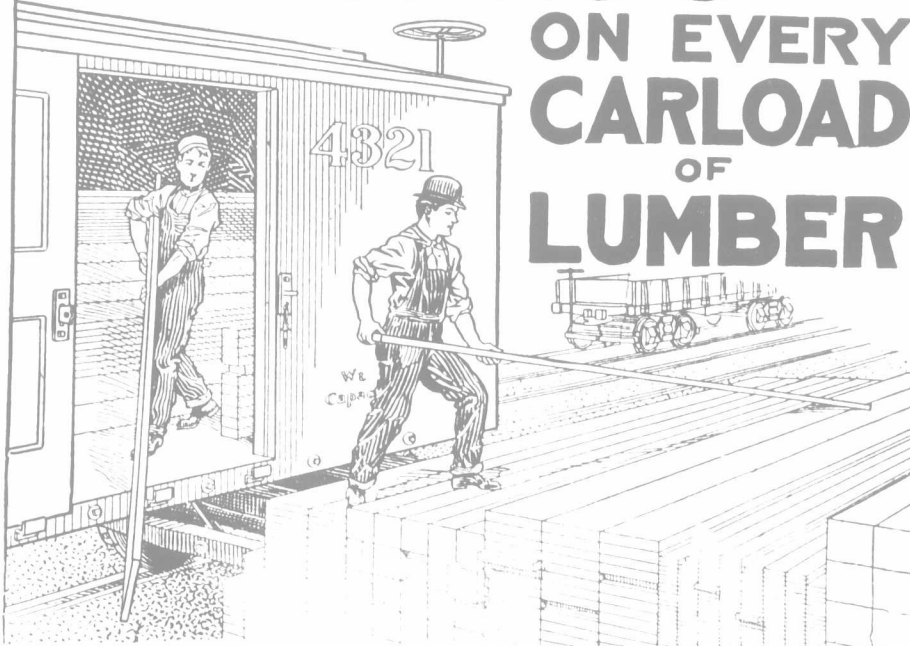
NO NAME GIVEN.

Two or three letters to which initials only were signed, no name being given anywhere on the paper, have arrived for this department. Please remember that letters must be accompanied by full address, otherwise they are likely to go into the waste-paper basket. This is a rule among publications.

TO A FLY.

What were you made for, you little fly
You are a nuisance that none can deny.
We're glad to be rid of you part of the year,
But when the warm weather comes then you appear.
The women can't bear you, they hate you like sin,
They say "There's a fly coming! Don't let him in."
I'll tell you the reason, they do not like dirt,
So stay out of doors or you'll likely get hurt.
When you enter the kitchen to the table you fly,
The uncovered sugar bowl soon you spy.
You don't care who sees you, into it you go,
Where you have come from, none of us know.
You act as if for you the table was set,
And you help yourself; no, you never forget.
The germs that you carry invisible are
To the naked eye, but you travel so far.
Our blinds we must draw to keep our rooms dark,
If you light on our windows there you leave your mark.
When once you get in, O! it makes our hearts sore.

SAVE \$100.00



ON EVERY CARLOAD OF LUMBER

We are headquarters for all kinds of

LUMBER

Cedar, Tamarac, Spruce, Hemlock, Pine, Oak, etc.

Also

Lath, Shingles, Sash, Doors, Blinds, Window and Door Screens, and Verandah Materials.

We carry a large stock of Silo Material, and will be pleased to give you prices on shipments delivered at your station.

Be sure to write for prices on any building material you want.

THE M. BRENNEN & SONS MFG. CO., LTD., HAMILTON, CANADA

BEST RESULTS ARE OBTAINED FROM ADVOCATE ADVERTISEMENTS.



A warm, dry Poultry house means more profit from your chickens

Poultry thrive and the hens will lay more eggs if they are kept in a warm dry house—and they will require less feed. This means more profit from your flock. Use

Certain-teed Rubber Roofing

Quality Certified—Durability Guaranteed

on the top of and sides of your Poultry House—its wind and rain proof—easy to apply—costs less money and is more durable—GUARANTEED FOR FIFTY YEARS—comes in Rolls or Shingles. **Certain-teed** Roofing is sold throughout the Provinces of Canada by local dealers, and is distributed in Halifax, Quebec, Montreal, Toronto, Winnipeg, Vancouver and Victoria. Send for our valuable book, B.F.S., "How to BUILD FOR LESS MONEY"—FREE.

General Roofing Mfg. Co.

World's Largest Roofing and Building Paper Manufacturers WINNIPEG MANITOBA

For in a few days there are a lot more of you mean little fly, the man and women.

Say that you and your race are the plague of their lives.

We put screens on our windows, but you have a knack

Of shoving yourself in through some little crack.

We don't like you at all, little fly, it is true,

Though some people say you're a scavenger too.

We know you're not cleanly, you'll surely get hurt,

If you enter our houses looking for dirt.

Little fly let me give you a bit of advice,

Our houses are cleaned, they are fixed up so nice,

We do not require your services here,

You'll get caught or poisoned, so do not come near.

Charlottetown, P.E.I. A. R.

So even in Prince Edward Island you have flies. There's a serpent in every paradise, isn't there?

BANDEAUX.

[A hint for the girls.]

When one notes how almost invariably becoming bandeaux for the hair are, when worn by young girls, and what a touch of distinctiveness they lend to a party costume, one wonders that they did not come into fashion long before, and whether they will ever again go out of it. To be most effective, of course, the bandeau should match the dress. For instance, with a pale pink dress a bandeau in which the prevailing tone is pink of the same shade should be worn; with a pale blue dress one with pale blue as the foundation color, and so on.

Any girl can make these pretty little trinkets for herself, but she should remember that they are only suitable for party wear, in afternoon or evening. A fancy hair-band worn at church or with a shirtwaist would be ridiculous.

Here are a few suggestions:

1. Twine together softly strips of tulle or malines, of any color you choose. Finish with choux over the ears. You may twist a string of tiny pearl beads along with the tulle if you choose.
2. Make tiny rosebuds of silk or satin and attach them into a loose wreath by means of hair wire wound with green ribbon. Mix with little leaves made of the ribbon, and wear across the top of the head from ear to ear.
3. Make a bandeau of any soft ribbon in a pale color. Fasten behind the left ear with a bunch of tiny satin rosebuds.
4. Buy enough silver lace insertion for a bandeau. Finish at the ears with tassels of steel beads.
5. Wear as a bandeau three strands of rather small pearl beads, separated somewhat on top of the head and drawn together behind the ears.
6. Sew a pattern of tiny pearl and silver beads on a band of silver net. Finish at the ears with wired bows of the same.
7. Sew a pattern of small jet and gold beads on a black velvet band, or stitch to it motifs from gilt applique. Let the band pass plainly under the hair at the ears.
8. Make a semicircle of small daisies skilfully constructed from narrow white ribbon, with yellow ribbon for the centers. Fasten all to a piece of narrow baby-ribbon that will not show when the bandeau is in place.
9. Make a broad band of malines and embroider it with metallic threads and fine silk thread, or trim it with metallic applique. Draw it together at the ends and finish with or without rosettes of the malines.
10. Make a bandeau of black velvet ribbon. Either embroider it with fine colored silks or trim it with very tiny rosebuds made of pink mousseline with green leaves.

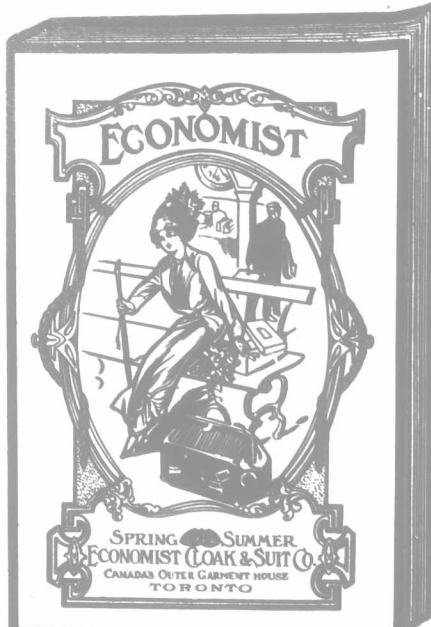
Our Scrap Bag.

PATCH BAGS.

Make large bags of muslin or netting to hold patches. They make it easier to find the bits of cloth when you need them.

TO KEEP THE CRUST FROM STICKING.

Stick the upper crust under the lower and press down a little with a fork.



Ladies, We Have a Copy of this Style Book for You

This picture is a reproduction of the front cover of the Economist Style Book. We want every woman reader of this paper to have a copy, and if you will send us your name and address, will mail one to you FREE.

Thousands of Canadian women use our "Style Book" always to assist them in purchasing their clothing—suits—coats—dresses—millinery, etc. All goods shown in this Style Book and bought from us carry our guarantee of **SATISFACTION TO YOU OR MONEY REFUNDED.**

We would like to convince you at our risk that by buying from the Economist Style Book, you can dress in the latest fashion, in garments that from every standpoint are exceptional value for your money.

Write to-day for Your Copy **The Economist Cloak & Suit Co.,** Dept. D Toronto, Ontario "Canada's Outer Garment House"

Remember the St. Lawrence Sugar

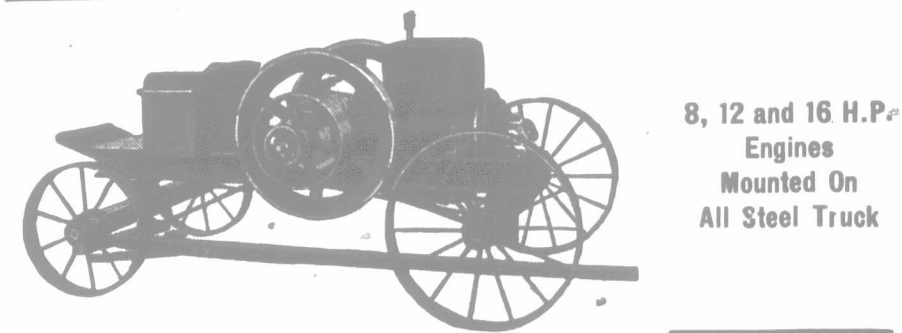
Try it—test it—see for yourself—that "St. Lawrence Granulated" is as choice a sugar as money can buy.

Get a 100 pound bag—or even a 20 pound bag—and compare "St. Lawrence" with any other high-grade granulated sugar.

Note the pure white color of "St. Lawrence"—its uniform grain—its diamond-like sparkle—its matchless sweetness. These are the signs of quality.

And Prof. Hersey's analysis is the proof of purity—"99 99/100 to 100% of pure cane sugar with no impurities whatever". Insist on having "ST. LAWRENCE GRANULATED" at your grocer's.

ST. LAWRENCE SUGAR REFINING CO., LIMITED, MONTREAL. 66



8, 12 and 16 H.P. Engines Mounted On All Steel Truck

"Bull Dog" Gasoline Engines

are built especially for agricultural trade. Mounted outfit, shown above, is just the thing for work requiring a portable engine. Built without cast iron sub-base, and all unnecessary weight eliminated. Completely equipped. 8, 12 and 16 H.P. Also 1 1/2, 2 1/2, 4 1/2 and 6 H.P. sizes adapted for stationary, semi-portable or portable mounting. Strong, rugged construction. No complicated working parts. Write our Canadian Agents for descriptive catalog of "Bull Dog" farm engines.

BATES & EDMONDS MOTOR CO., Lansing, Michigan
General Agents for Canada:
A. R. WILLIAMS MACHINERY CO., LTD., Toronto, Ont., St. John, N. B.

TO TEMPORARILY STOP A LEAK IN A BOILER.

If the hole is very small it may be temporarily stopped by dropping in a handful of cornmeal and leaving for a while before putting in the clothes. The suction will draw the meal towards the hole.

WORK APRONS.

Make large aprons, turn up the lower part and stitch up each side and down

the middle to form two pockets. These will be found very handy for carrying clothespins, etc.

TO CLEAN IVORY KNIFE HANDLES. Rub them with lemon dipped in salt.

Seasonable Recipes.

Fried Veal Cutlets:—Put into a frying-pan 2 tablespoons drippings. When boiling hot put in the cutlets well seasoned



Clean Basins & Sinks

may be had easily, quickly and continually by the use of

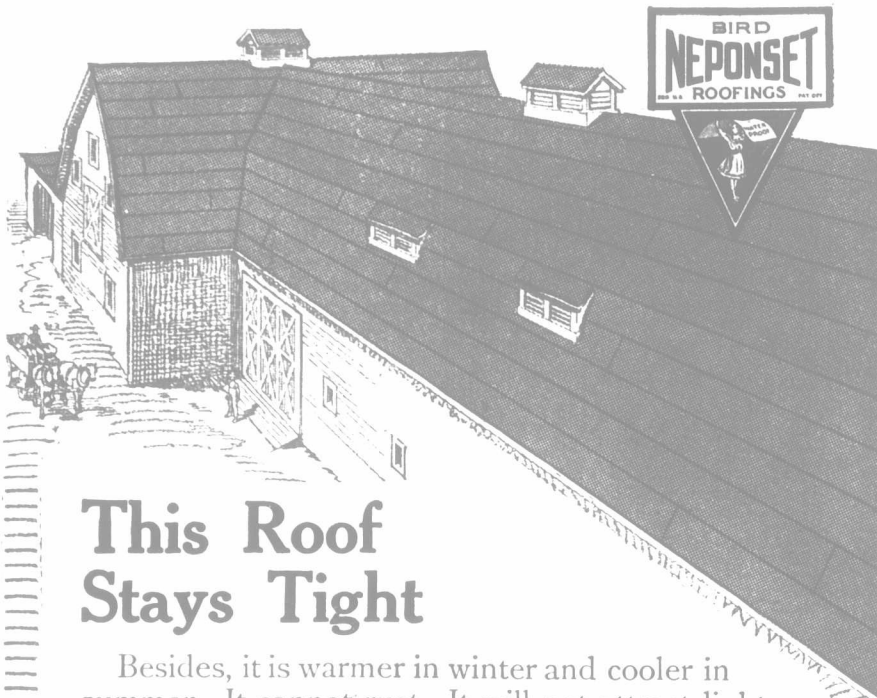
Old Dutch Cleanser

The safest, most efficient cleanser for everything about the house, barn and dairy. No dirt, grease or grime can withstand its wonderful action. The thick scum which often gathers on the sides and bottom of the sink and defies soap and soap cleaning, disappears like magic when Old Dutch Cleanser is used.

Avoid Caustics and Acids

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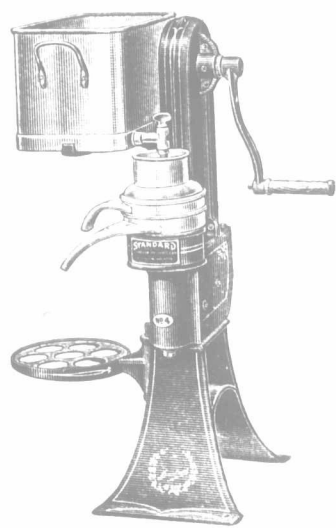
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and dredged with flour. Brown nicely, remove from the grease and serve with tomato sauce.

Tomato Sauce—Take canned tomatoes and stew them with a slice of onion, a clove or two, and seasoning. Strain, thicken slightly with flour and butter cooked together, and serve.

Cocoanut Cake—1 scant cup butter creamed with 1 1/2 cups sugar. Add 3 beaten eggs, 1 teaspoon vanilla, 1 salt-spoon mace, 1/2 cup milk, and lastly 3 cups pastry flour sifted with 1 teaspoon cream tartar and 1/2 teaspoon soda. Some beat the eggs separately and add the stiffly beaten whites last. Bake in layer cake tins. As soon as baked split each in two, spread with a thin layer of jelly and then with the following filling: 1 cup raisins stoned and chopped fine, 1/2 cup chopped almonds, 1/2 cup desiccated cocoanut, and white of 1 egg beaten stiff. Beat all well together.

Cream of Asparagus Soup—Boil 1 qt. asparagus, cut into inch lengths, until tender. Put through a colander into the water in which it was boiled. Season with pepper and salt. Heat 1 pint milk and thicken with 1 tablespoon butter rubbed with 1 tablespoon flour. When cooked add to asparagus. Serve at once with bits of toasted bread.

Scrambled Eggs—Break 8 fresh eggs into a saucepan. Add a piece of butter size of an egg, 8 tablespoons cream, salt and pepper to season. Stir the whole over the fire until the eggs begin to thicken, then take from the fire and beat with an egg-beater until light. Reheat a little and serve at once on toast.

My Most Profitable Failure.

One day I went to call on my old neighbor, Mrs. Blake. She was one of those proud, refined ladies who had seen better days, but misfortune had left her in destitute circumstances, and she confided her sorrow to me alone. Our conversation that day was varied, and as I left her she said, "You are the only confidant I have in the world." As I went on my road home I thought, "How nice it is to be able to help! How beautiful that I alone am the favored one to be worthy of her confidence because of my benevolent disposition."

Time passed on; I had almost forgotten the conversation when one evening my husband came home. He said to me, "Old Mrs. Blake came out as I went by and asked me if I would tell you to come over. She wanted to see you; she is not able to get here." "Oh yes," said I, "I will go right over in the morning; it is too late to-night."

The next evening my husband said to me, "Well, what did the old lady want?" "Well," I said, "I did not get over today. I have been so busy, and I'm too tired to-night."

The next day company came, and in my joy to see them old Mrs. Blake was forgotten. Before I knew it a week had slipped away, when I resolved, "Now as soon as my morning's work is done—"

As I was hurrying through my work a careless neighbor dropped in. Said she, "Did you hear the news? Old Mrs. Blake is dead, and the doctor said it is a clear case of starvation. But she was always so close-mouthed and proud any way, nobody could do anything for her."

My heart stood still; I fell to my knees; I wrung my hands in agony, but the stubborn fact still remained the same, while the bearer of the news looked on in dumb surprise. I staggered over to her home. There was not a morsel in the house. Oh, my agony! My useless grief! Now this was years ago, but when a call of distress comes, I go at once, with these thoughts running through my mind: Opportunity is the flower of time, and as the stalk remains after the flower is cut off, so time remains with us after opportunity has gone forever. MRS. R. WILLIS.

R.R. No. 1, London, Ont.

The above essay, while properly belonging to the "men's part" of "The Farmer's Advocate," in which the competition, "My Most Profitable Failure" was given, has been handed to me for publication. It was not awarded a prize, because the competition looked to the financial side of the question exclusively. Mrs. Willis, as may be seen, has dealt with the ethical rather than the financial, and a striking feature of her thought is the recognition of the moral failure.



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The Scarlet Pimpernel.

A STORY OF ADVENTURE.
By Baroness Orczy.

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(Continued from last week.)

CHAPTER XXIII.

Hope.

"Faith, Madame!" said Sir Andrew, seeing that Marguerite seemed desirous to call her surly host back again. "I think we'd better leave him alone. We shall not get anything more out of him, and we might arouse his suspicions. One never knows what spies may be lurking around these God-forsaken places."

"What care I?" she replied lightly. "now I know that my husband is safe, and that I shall see him almost directly!"

"Hush!" he said in genuine alarm, for she had talked quite loudly, in the fulness of her glee. "the very walls have ears in France, these days."

He rose quickly from the table, and walked round the bare, squalid room, listening attentively at the door, through which Brogard had just disappeared, and whence only muttered oaths and shuffling footsteps could be heard. He also ran up the rickety steps that led to the attic to assure himself that there were no spies of Chauvelin's about the place.

"Are we alone, Monsieur, my lacquey?" said Marguerite gaily, as the young man once more sat down beside her. "May we talk?"

"As cautiously as possible!" he entreated.

"Faith, man! but you wear a glum face! As for me, I could dance with joy! Surely there is no longer any cause for fear. Our boat is on the beach, the Foam Crest not two miles out at sea, and my husband will be here, under this very roof, within the next half hour perhaps. Sure! there is naught to hinder us. Chauvelin and his gang have not yet arrived."

"Nay, madam! that I fear we do not know."

"What do you mean?"

"He was at Dover at the same time that we were."

"Held up by the same storm, which kept us from starting."

"Exactly. But—I did not speak of it before, for I feared to alarm you—I saw him on the beach not five minutes before we embarked. At least, I swore to myself at the time that it was himself; he was disguised as a cure, so that Satan, his own guardian, would scarce have known him. But I heard him then, bargaining for a vessel to take him swiftly to Calais; and he must have set sail less than an hour after we did."

Marguerite's face had quickly lost its look of joy. The terrible danger in which Percy stood, now that he was actually on French soil, became suddenly and horribly clear to her. Chauvelin was close upon his heels; here in Calais, the astute diplomatist was all-powerful; a word from him and Percy could be tracked and arrested, and . . .

Every drop of blood seemed to freeze in her veins; not even during the moments of her wildest anguish in England had she so completely realized the imminence of the peril in which her husband stood. Chauvelin had sworn to bring the Scarlet Pimpernel to the guillotine, and now the daring plotter, whose anonymity hitherto had been his safeguard, stood revealed through her own hand, to his most bitter, most relentless enemy.

Chauvelin—when he waylaid Lord Tony and Sir Andrew Ffoulkes in the coffee-room of "The Fisherman's Rest"—had obtained possession of all the plans of this latest expedition. Armand St. Just, the Comte de Tournay and other fugitive royalists were to have met the Scarlet Pimpernel—or, rather, as it had been originally arranged, two of his emissaries—on this day, the 2nd of October, at a place evidently known to the league, and which he alluded to as the "Petit Blanc, and so forth."

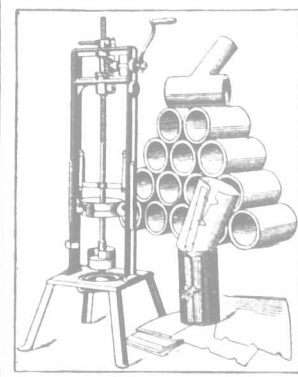
And whose connection with the Scarlet Pimpernel and disavowal of the league policy of the Reign of Terror was still unknown to his countrymen had left

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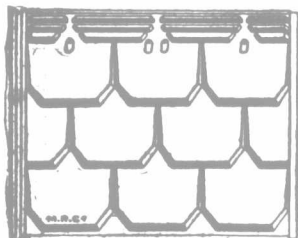
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19

England a little more than a week ago, carrying with him the necessary instructions, which would enable him to meet the other fugitives and to convey them to this place of safety.

This much Marguerite had fully understood from the first, and Sir Andrew Foulkes had confirmed her surmises. She knew, too, that when Sir Percy realized that his own plans and his directions to his lieutenants had been stolen by Chauvelin, it was too late to communicate with Armand, or to send fresh instructions to the fugitives.

They would, of necessity, be at the appointed time and place, not knowing how grave was the danger which now awaited their brave rescuer.

Blakeney, who as usual had planned and organized the whole expedition, would not allow any of his younger comrades to run the risk of almost certain capture. Hence his hurried note to them at Lord Grenville's ball—"Start myself to-morrow—alone."

And now with his identity known to his most bitter enemy, his every step would be dogged, the moment he set foot in France. He would be tracked by Chauvelin's emissaries, followed until he reached that mysterious hut where the fugitives were waiting for him, and there the trap would be closed on him and on them.

There was but one hour—the hour's start which Marguerite and Sir Andrew had of their enemy—in which to warn Percy of the imminence of his danger, and to persuade him to give up the foolhardy expedition, which could only end in his own death.

But there was that one hour.

"Chauvelin knows of this inn, from the papers he stole," said Sir Andrew, earnestly, "and on landing will make straight for it."

"He has not landed yet," she said, "we have an hour's start of him, and Percy will be here directly. We shall be mid-Channel ere Chauvelin has realized that we have slipped through his fingers."

She spoke excitedly and eagerly, wishing to infuse into her young friend some of that buoyant hope which still clung to her heart. But he shook his head sadly.

"Silent again, Sir Andrew?" she said with some impatience. "Why do you shake your head and look so glum?"

"Faith, Madame," he replied, "'tis only because in making your rose-colored plans you are forgetting the most important factor."

"What in the world do you mean?—I am forgetting nothing. . . . What factor do you mean?" she added with more impatience.

"It stands six foot odd high," replied Sir Andrew, quietly, "and hath name Percy Blakeney."

"I don't understand," she murmured. "Do you think that Blakeney would leave Calais without having accomplished what he set out to do?"

"You mean . . . ?"

"There's the old Comte de Tournay," "The Comte . . . ?" she murmured.

"And St. Just . . . and others . . ."

"My brother!" she said with a heart-broken sob of anguish. "Heaven help me, but I fear I had forgotten."

"Fugitives as they are, these men at this moment await with perfect confidence and unshaken faith the arrival of the Scarlet Pimpernel, who has pledged his honour to take them safely across the Channel."

Indeed, she had forgotten! With the sublime selfishness of a woman who loves with her whole heart, she had in the last twenty-four hours had no thought save for him. His precious, noble life, his danger—his, the loved one, the brave hero, he alone dwelt in her mind.

"My brother!" she murmured, as one by one the heavy tears gathered in her eyes, as memory came back to her of Armand, the companion and darling of her childhood, the man for whom she had committed the deadly sin, which had so hopelessly imperilled her brave husband's life.

"Sir Percy Blakeney would not be trusted, honourable leader of a score of English gentlemen," said Sir Andrew, proudly, "that he should land here, and play the part of a fugitive."

There was a moment's silence. As the words came back to her, she felt a sudden pang of remorse. "What a fool I have been!" she thought, "to have trusted my husband's life to a man who would not be trusted by his own countrymen!"

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young man said nothing; his heart ached for this beautiful woman in her awful grief. All along he had felt the terrible impasse in which her own rash act had plunged them all. He knew his friend and leader so well, with his reckless daring, his mad bravery, his worship of his own word of honour. Sir Andrew knew that Blakeney would brave any danger, run the wildest risks sooner than break it, and, with Chauvelin at his very heels, would make a final attempt, however desperate, to rescue those who trusted in him.

"Faith, Sir Andrew," said Marguerite at last, making brave efforts to dry her tears, "you are right, and I would not now shame myself by trying to dissuade him from doing his duty. As you say, I should plead in vain. God grant him strength and ability," she added fervently and resolutely, "to outwit his pursuers. He will not refuse to take you with him, perhaps, when he starts on his noble work; between you, you will have cunning as well as valour! God guard you both! In the meanwhile I think we should lose no time. I still believe that his safety depends upon his knowing that Chauvelin is on his track."

"Undoubtedly. He has wonderful resources at his command. As soon as he is aware of his danger he will exercise more caution: his ingenuity is a veritable miracle."

"Then, what say you to a voyage of reconnaissance in the village whilst I wait here against his coming!—You might come across Percy's track and thus save valuable time. If you find him, tell him to beware!—his bitterest enemy is on his heels!"

"But this is such a villainous hole for you to wait in."

"Nay, that I do not mind!—But you might ask our surly host if he could let me wait in another room, where I could be safer from the prying eyes of any chance traveller. Offer him some ready money, so that he should not fail to give me word the moment the tall Englishman returns."

She spoke quite calmly, even cheerfully now, thinking out her plans, ready for the worst if need be; she would show no more weakness, she would prove herself worthy of him, who was about to give his life for the sake of his fellow-men.

Sir Andrew obeyed her without further comment. Instinctively he felt that hers now was the stronger mind; he was willing to give himself over to her guidance, to become the hand, whilst she was the directing head.

He went to the door of the inner room, through which Brogard and his wife had disappeared before, and knocked; as usual he was answered by a salvo of muttered oaths.

"Hey! friend Brogard!" said the young man peremptorily, "my lady would wish to rest here awhile. Could you give her the use of another room? She would wish to be alone."

He took some money out of his pocket, and allowed it to jingle significantly in his hand. Brogard had opened the door and listened, with his usual surly apathy, to the young man's request. At sight of the gold, however, his lazy attitude relaxed slightly; he took his pipe from his mouth and shuffled into the room.

He then pointed over his shoulder at the attic up in the wall.

"She can wait up there!" he said with a grunt. "It's comfortable, and I have no other room."

"Nothing could be better," said Marguerite in English; she at once realized the advantages such a position hidden from view would give her. "Give him the money, Sir Andrew; I shall be quite happy up there, and can see everything without being seen."

She nodded to Brogard, who condescended to go up to the attic, and to shake up the straw that lay on the floor.

"May I entreat you, madam, to do nothing rash," said Sir Andrew, as Marguerite prepared in her turn to ascend the rickety flight of steps. "Remember this place is infested with spies. Do not, I beg of you, reveal yourself to Sir Percy, unless you are absolutely certain that you are alone with him."

Even as he spoke, he felt how unnecessary was this caution: Marguerite was as calm, as clear-headed as any man. There was no fear of her doing anything that was rash.

"Nay," she said, with a slight attempt at cheerfulness, "that can I faithfully promise you. I would not jeopardise my husband's life, nor yet his plans, by

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1870

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We have for service this season the Champion Imp. Clydesdale stallions Netherby, by Fries of Blonco, dam by Sir Everard; also Lord Aberdeen, by Netherby, and the Champion Hackney stallion Terrington Lucifer, by Copper King. For terms and rates apply to the manager.
T. B. MACAULAY, Prop. ED. WATSON Manager.

Clydesdales, Imp., Just Arrived

Our new importation has arrived safely, and we are now in a position to supply the trade with stallions from 1 year old up to 4, with more draft character, big, strong, flat bone, and better breeding than any other firm in the trade. Prices and terms as favorable as any other importer in Canada.

BARBER BROS., GATINEAU PT., QUEBEC, NEAR HULL.

ORMSBY GRANGE STOCK FARM, Ormstown, P. Que.

A large importation of specially-selected 2-year-old stallions, fillies and show mares. Will arrive early in May.

D. McEACHRAN, PROPRIETOR

CLYDESDALES (Imported) CLYDESDALES

SPRING HILL Top Notchers. Stallions, mares and fillies. 65 per cent. guarantee with stallions. Every mare guaranteed in foal. Ages, 3 years old and upwards.

J. & J. SEMPLE
Milverton, Ontario, and La Verne, Minnesota

CLYDES, SHIRES, PERCHERONS

Now offering 8 imp. Clydesdale fillies, rising 3 years; 1 imp. Clydesdale stallion 12 years, a good one, and several stallions 2 and 3 years; one Shire stallion, sure foal-getter; two black Percheron stallions, 6 and 8 years, and one Thoroughbred stallion. All will be sold at bargain prices.

T. D. ELLIOTT, Bolton, Ont. Long-distance Phone.

IMPORTED CLYDESDALES

I have for sale mares and fillies, from foals up to 5 years of age; richly bred and big in size; a number of them in foal; matched pairs, the kind to make you money. They will be sold at prices that defy competition.

L.-D. phone. **ALEX. F. McNIVEN, St. Thomas, Ont.**

Imp. Clydesdale Stallions of Size and Quality

Our latest importation of Clyde stallions include several that were 1st prizewinners in Scotland. We have them from one year old up, of choicest breeding, big, flashy quality fellows, full of draft character. Our prices are the lowest, and our terms the best.

L.-D. phone. **CRAWFORD & McLACHLAN, Thedford P.O. and Stn.**

We still have on hand a few good **Clydesdale Stallions** with both size and quality, all prizewinners and breeding of the best blood in Scotland. Prices and terms the best in Canada.

John A. Boag & Son, Bay View Farm, Queensville, Ont.
On the Toronto & Sutton Radial Railway Line. Long-distance Phone.

BLAIRGOWRIE IS OFFERING AT PRESENT:

CLYDESDALE MARES, imported and Canadian-bred, from one year up to 5 years; also a pair of Canadian-bred stallions, rising three years. Young cows with calves by side, and heifers well on or in calf. Children's ponies, well broken and quiet, from 1½ to 14 hands.

Myrtle, C. P. R. Sta. L.-D. Phone. **JOHN MILLER, JR. Ashburn, P. Q.**

A Few Choice Clyde Fillies—I am offering several choice and particularly well-bred Clydesdale fillies from foals of 1911 up to 3 years of age, imp. sires and dams. Also one stallion colt of 1911, imp. sire and dam. These are the kind that make the money.

HARRY SMITH; Hay P.O., Ont. Exeter Sta. L.-D. Phone.

IMP. CLYDESDALE STALLIONS AND FILLIES

In my late importation of Clydesdale stallions and fillies I have exceptionally choice breeding idea draft characters; as much quality as can be got with size, and I can undersell any man in the business. Let me know your wants.

GEO. C. STEWART, Howick, Que. L.-D. Phone.

BIG QUALITY CLYDESDALES

We have them on hand imported this year, Stallions and Fillies, many of them winners, the best blood of the breed, with size, character and quality. There are none better and no firm can sell cheaper.

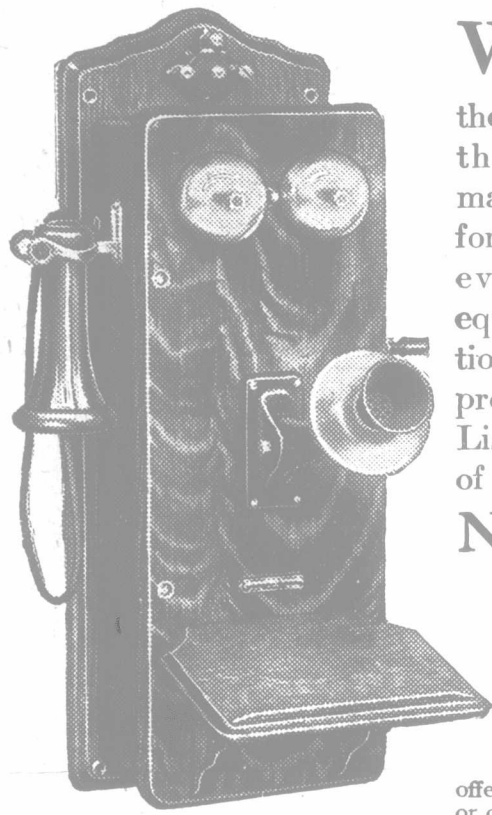
R. NESS & SON, Howick, Que.

IMPORTED CLYDE FILLIES

A choice bunch of young imp. Clyde fillies just landed, from two to four years old; also a few young stallions left, two and three years old; all big size and quality. Prices away down, as they must be sold.

W. B. ANNETT, Alvinston, Ont. Watford Sta., G.T.R., 30 miles west of London.

High-Class Telephones and Construction Materials



The strongest ringing and talking telephone made.

WE make the highest-grade telephones on the market. We guarantee them against defects in material and workmanship for 10 years. We handle everything in high-grade equipment and construction materials. We ship promptly. Write for Price List. Also send for a copy of our

No. 3 Bulletin

It contains the latest information on how to build, equip and maintain rural telephone lines. At the same time ask for particulars about our

Free Trial

offer, which enables any municipality or company to test, try and judge the efficiency of our telephones before investing a dollar.

Canadian Independent Telephone Co. Limited
20 DUNCAN STREET, TORONTO

Union Stock Yards of Toronto, Ltd.

HORSE DEPARTMENT

Auction Sale Every Wednesday Private Sales Every Day
Railroad Loading Facilities at Barn Doors

W. W. SUTHERLAND, J. H. ASHCRAFT, JR.,
In Office. Manager.

Toppers in Clydesdales at Markham, Ont.



I have sold more Clydesdales in the last four months than I ever did before in the same time. Why, because I can show more good horses than any other man in Canada. I have some crackers left. Come quick if you want the best the breed produces. No man can undersell me.

T. H. HASSARD, Markham, Ont.
Markham, G. T. R. Locust Hill, C. P. R.

GRAHAM & RENFREW COMPANY CLYDESDALES AND HACKNEYS

Our winnings at all shows are your guarantee that whatever you buy from us will be the best in the land. You cannot afford to buy without first seeing our importations.
Address all correspondence to Bedford Park P.O., Ont. Telegrams to Toronto. Telephone North 4483, Toronto.

Clydesdale Stallions and Fillies



Our past record for many years in the leading show-rings of Canada and in the yearly increase in volume of business is our best recommendation. This has been our best year. We have still some of the best of last year's importation in both stallions and fillies. We solicit your trade and confidence.

SMITH & RICHARDSON, Columbus P.O., Ont.
Brooklin G. T. R. Myrtle C. P. R. Ottawa C. N. R.

10 SHORTHORN BULLS 10

If you are looking for a young bull to head a purebred herd, or one to cross on grade cows to raise first-class steers, I have them to suit all customers at very reasonable prices. They are reds and roans, and one extra good white show calf; ages from 9 to 14 months, nearly all sired by imported bulls and from the best Scotch families of cows. Will be pleased to furnish breeding and prices.

Claremont Stn., C.P.R., 3 miles. **JOHN MILLER, Brougham P.O., Ont.**
Pickering Stn., G.T.R., 7 miles.

ORCHARD GROVE HEREFORDS

Champions of 1911 shows, winning both senior and junior herds at Winnipeg, Brandon, Regina, Edmonton, Toronto and London; also fifteen championships.
Young stock, both sexes, for sale at reasonable prices.
Long-distance Phone **L. O. CLIFFORD Oshawa, Ont.**

speaking to him before strangers. Have no fear, I will watch my opportunity, and serve him in the manner I think he needs it most."

Brogard had come down the steps again and Marguerite was ready to go up to her safe retreat.

"I dare not kiss your hand, madam," said Sir Andrew, as she began to mount the steps, "since I am your lacquey, but I pray you be of good cheer. If I do not come across Blakeney in half an hour I shall return, expecting to find him here."

"Yes, that will be best. We can afford to wait for half an hour. Chauvelin cannot possibly be here before that. God grant that either you or I may have seen Percy by then. Good luck to you, friend! Have no fear for me."

Lightly she mounted the rickety wooden steps that led to the attic. Brogard was taking no further heed of her. She could make herself comfortable there or not as she chose. Sir Andrew watched her until she had reached the loft and sat down upon the straw. She pulled the tattered curtains across, and the young man noted that she was singularly well placed there, for seeing and hearing, whilst remaining unobserved.

He had paid Brogard well; the surly old innkeeper would have no object in betraying her. Then Sir Andrew prepared to go. At the door he turned once again and looked up at the loft. Through the ragged curtains Marguerite's sweet face was peeping down at him, and the young man rejoiced to see that it looked serene, and even gently smiling. With a final nod of farewell to her, he walked out into the night.

(To be continued.)

QUESTIONS AND ANSWERS. Miscellaneous.

MANGERS FOR HORSES.

In putting in horses' mangers, which would you prefer, a slatted manger opening so as to clean out in stall, or to clean out in hall in front of horses, or a tight-bottom manger? I would like to hear of any different way.

A CONSTANT READER.

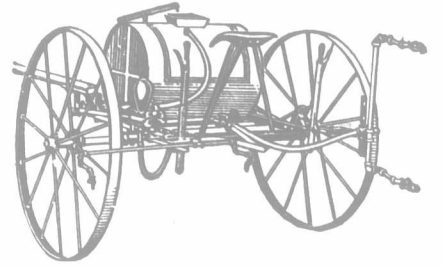
Ans.—As the material left by the horse in the manger, provided judicious feeding is practiced, is usually of no further use as feed, and is valuable only as litter, the logical place to have the manger open seems to be in the stall rather than in the feed alley. Some have tight-bottomed mangers with a small door at or near the bottom by which to clean it out. Others use slatted mangers with good results. It depends largely upon which suits your individual conditions best as to which you use. The slatted manger is handy, permits of the horse getting the feed readily, and properly constructed, prevents waste. Some use both, the rack above and the manger underneath. In some of the newer stables, an iron rack for the coarse feed is placed in one front corner of the stall, and the grain box in the other. This makes a neat arrangement, but would be more costly than the plain wooden racks and mangers.

GOSSIP.

The annual horse show at Cobourg will be held this year August 13, 14, 15, 16 and 17th.

The Shire stud of Sir Horace Regnard, comprising twenty-five head, was recently sold at Peterborough, England. In-foal mares were keenly sought after, and prices ranged up to 290 guineas, for a son of Montford Jupiter, called Sollar's Jupiter, falling to the bid of F. W. Griffin. A yearling filly brought 150 guineas, and an eight-year-old daughter of Lockinge Forest King brought 175 guineas. The entire stud averaged £91, 10s., making a total of over £2,228.

A letter from G. W. Clemons, Secretary, Holstein-Friesian Association of Canada, communicates the fact that the auction sale of Holstein cattle owned by Thos. Laycock & Son, and sold in Calgary May 8th, was a great success. "Seventy-four head, including three calves from one to two months old, brought an average of \$212 each. It looks," adds Mr. Clemons, "as if in Western Canada, as well as in the East, good Holsteins are about the most valuable property a man can have on his farm."



O.K. CANADIAN FOUR ROW SPRAYER

is a real pleasure to have on the farm, because it does its work so well. Both Pump and Agitator work "like clock work". Sprays like Arsenate of Lead won't settle in the tank while the "O.K." is in motion. Barrel holds 45 gallons of spray mixture. You ought to have one.

"O.K." Two Horse Potato Digger is used by thousands of prosperous farmers in every section of Canada and United States. Write for our book—"Money in Potatoes," and Catalogue L.

CANADIAN POTATO MACHINERY CO., LIMITED. - GALT, ONT.

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 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., Druggists,
171 King St., E. TORONTO, ONT.

Don't Cut Out A SHOE BOIL, CAPPED HOCK OR BURBITIS FOR ABSORBINE

will remove them and leave no blemishes. Cures any puff or swelling. Does not blister or remove the hair. Horse can be worked. £2.00 per bottle delivered. Book 6 F free.
ABSORBINE, JR., Liniment for manking. For Boils, Bruises, Old Sores, Swellings, Gout, Varicose Veins, Vascularities, Allays Pain. Price 1/6 and 2/6 a bottle at druggists or delivered. Will tell more if you write. Manufactured only by W. F. YOUNG, P.D.F., 258 Lyman's Bldg., Montreal, Ca.

Messrs. Hickman & Scruby COURT LODGE, EGBERTON, KENT, ENGLAND EXPORTERS OF PEDIGREE

Live Stock of all Descriptions.
In the spring months we shall be shipping large numbers of Percherons, Shires, Belgians, Clydesdales, Suffolks, etc., and all those who wish to buy imported stock should write us for full particulars.

For Sale Valley Dale Shires. Imported and Canadian bred Stallions, Mares and Fillies from 1 to 7 years old. For description and particulars apply to

Wm. Pearson & Son, West Flamboro,
Address 103 York Street,
HAMILTON, ONT.

For Sale 25,000 rods wire fencing; 300,000 ft. belting, all kinds; 50,000 ft. iron pipe; also pulleys, shafting, hangers, roofing, vices, chains, etc. Enormous stock; 25 to 75 per cent. less than regular value. Catalogue free.

IMPERIAL WASTE & METAL COY
20 Queen Street, Montreal

Aberdeen-Angus—A few bulls to sell yet; also females. Come and see them before buying. Drumbo Station.

Walter Hall, Washington, Ont.

Balmie Aberdeen-Angus I am offering for sale young bulls and heifers of the highest types of the breed. Show stock in show condition a specialty. Bred on the most popular lines. **Thos. B. Broadfoot, Fergus Sta., Wellington Co., Ont.**

Greenock Shorthorns!
For sale: Two registered bulls, 12 and 13 months; red and roan, highly bred; good quality; reasonable. **Nell A. McFarlane, Box 41, Dutton, Ont.** Elgin Co.

QUESTIONS AND ANSWERS.
Veterinary.

GOITRE.

Foal a week old has two small lumps in his throat. J. H.

Ans.—Rub well once daily with an ointment made of two drams each of iodine and iodide of potassium, mixed with two ounces vaseline. In many cases these enlargements of the glands gradually disappear without treatment. V.

FATALITY IN FOAL.

1. Is there a disease in foals known as "fish knees"?

2. We had a foal with lumps on its knees and it died. We were told that it had "fish knees." T. F. C.

Ans.—1. No.
2. The lumps on the knees did not cause death. In cases of joint ill affecting the knees, the whole joint becomes enlarged, but circumscribed lumps on the knees will not cause death. Your foal died from some other cause, probably some disease of the digestive system. V.

PARALYSIS.

1. In January last my cow showed slight lameness or stiffness in her hind legs. The trouble gradually got worse and she lost flesh. She has not been able to rise since April 6th. Her joints are slightly swollen.

2. I consulted a veterinarian, an old man, and he said she had tail soak. J. H.

Ans.—1. This apparently is a case of progressive paralysis, and a recovery is very doubtful. Give her 1½ pints of raw linseed oil, and follow up with 2 drams nux vomica three times daily. Keep comfortable, and turn her from side to side three times daily. Bathe the swollen joints well three or four times daily with hot water, and after bathing rub well with warm camphorated oil. If she does not show an improvement in two or three weeks, it will be wise to destroy her.

2. Are you not mistaken when you say that a veterinarian said she had "tail soak"? This is a disease that exists only in the imagination of some people who are not well versed in the diseases of stock. It would be very humiliating to the veterinary profession to think that a member made such a diagnosis. V.

GOSSIP.

Neil A. McFarlane, Dutton, Elgin Co., Ont., announces that he is continuing the breeding of Shorthorns at Greenock Farm. He has taken over a number of the most useful animals owned by McFarlane & Ford, amongst them being Tidy Lass (imp.), bred by Geo. Campbell, Harthill, Aberdeenshire, Scotland, and his stock bull, Blossom's Joy 73741, a son of Joy of Morning (imp.). Mr. McFarlane is offering for sale two young bulls, advertised in this issue. Parties in need of such should see or write Mr. McFarlane.

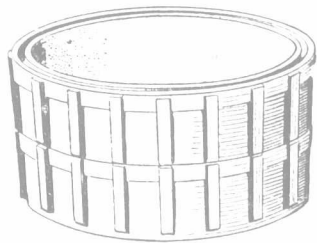
A. A. Farewell, of Oshawa, Ont., breeder of Holstein cattle, in ordering a change of advertisement, informs us that he has just completed testing Fairview Queen Korndyke, a daughter of Pontiac Korndyke. She gave 722 pounds of milk in seven days, her best daily yield being 108 pounds. Her 30-day record is 2,737 pounds milk. A junior three-year-old daughter of Pontiac Korndyke gave 570 pounds milk in seven days, her best daily yield being 88½ pounds. Young bulls and heifers from this heavy-yielding herd are for sale. See advertisement in another column.

The yearling Shorthorn bull, Leix President, bred by Viscount de Vesel Abbey-leix, Ireland, and shown by his breeder at various shows, has a good record of winnings to his credit for so young a bull. His record, according to the Livestock Journal, is as follows: At the Dublin show, first prize for the best yearling bull in the show and champion; first prize in the open class; first prize in the sale class, Queen Victoria Cup, value £100, for the best group of three bulls in the show; Phoenix Cup, value 70 guineas; champion prize of £20 for best yearling bull bred in Ireland; champion silver medal. At the Cork show: First prize and champion; Challenge Cup, 10 guineas; Gumbleton Challenge Cup.

Facts About McClary's "Sunshine" Furnace

--The Understudy of the Sun--

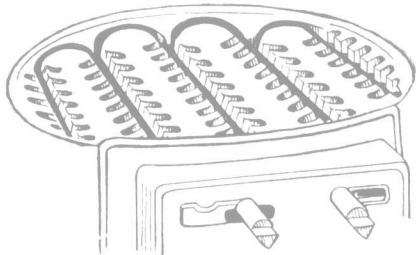
The Fire-pot of the "Sunshine" is made of Semi-Steel—that of the ordinary furnace is made of Grey Iron.



Here's the difference—Destructive sulphur fumes penetrate Grey Iron easily because it is porous. Semi-steel is not porous—it is a close-grained material with a smooth surface secretly processed by McClary's. Gas fumes cannot penetrate Semi-Steel therefore it lasts longer. The "Sunshine" Fire-pot is built in two sections joined together with our famous cup joint. The shape of this joint, combined with a layer of McClary's asbestos cement, makes it absolutely gas, smoke and dust-proof.

Clearly, the "Sunshine" is the premier furnace as far as the Fire-pot is concerned.

The Grates of the "Sunshine" Furnace have three sides each. Plainly, they have three times the endurance of one-sided grates. Every time you rock down the ashes of the "Sunshine" you can expose a fresh side of the grate to the fierce heat of the fire—lengthen the life of the grates.



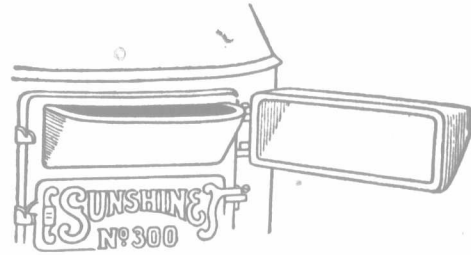
And the short, strong teeth of "Sunshine" grates simply grind up clinkers. The "Sunshine" Furnace is the best as far as grate construction goes.

Shaking an ordinary furnace is hard, back-breaking labor. You don't need to shake the "Sunshine"—you simply rock

it and the ashes drop into the ash-pan. A child can easily rock the grates of a "Sunshine"—merely another reason why you should buy a "Sunshine" Furnace.

Ordinary furnaces are called coal glut-tions. There may be good reasons for that—we don't know. But—we have built the "Sunshine" Furnace so that it is very easy on coal. Hundreds of people now using the "Sunshine," and having used ordinary furnaces, declare that the "Sunshine" makes two tons of coal do the work of three. Evidently, the "Sunshine" Furnace saves coal and money.

The ordinary furnace has a water-pan hidden somewhere about the base. There, it cannot carry out the purpose for which the water-pan was devised. The water-pan of the "Sunshine" Furnace is placed scientifically above the



radiator near the dome—the heat laps up the water, before being diffused all over the house. It contains the same amount of moisture as the air of a balmy June day. Plainly, as far as the water-pan is concerned, the "Sunshine" is the furnace you should buy.

There are many more reasons why you should invest your money in "The Understudy of the Sun"—McClary's "Sunshine" Furnace. Call on the McClary agent and ask him to show you all the mechanical reasons and exclusive devices which go to make the "Sunshine" the best and therefore the cheapest furnace you can buy. Write us at our nearest address if you cannot get in touch with him.

LONDON
TORONTO
VANCOUVER
ST. JOHN, N. B.

McClary's

MONTREAL
WINNIPEG
HAMILTON
CALGARY

Scotch Shorthorn Females for Sale I am offering at very reasonable prices, females from one year to five years of age. The youngsters are by my grand old stock bull, Scottish Hero (imp.) = 55042 = (90065), and the older ones have calves at foot by him, or are well gone in calf to him. Their breeding is unexcelled, and there are show animals amongst them. A. EDWARD MEYER, Box 378, GUELPH, ONT.

SHORTHORNS AND CLYDESDALES We have for sale four good bulls which we will sell right, sired by His Grace (imp.) = 69749 = One stallion rising three years old—a big, quality celt, and can spare a few heifers and cows. Write us, or come and see them. Farm one mile north of town. A. B. & T. W. DOUGLAS, STRATHROY, ONTARIO

SALEM SHORTHORNS Headed by (Imp.) Gainford Marquis, undoubted in Britain as a calf and yearling, and winner of junior championship honors at Toronto, 1911. Have on hand two yearlings and a number of bull under a year for sale at reasonable prices. J. A. WATT, Salem, Ont. Elora Sta, G. T. R. and C. P. R.

Scotch Shorthorns For Sale. Imp. Bandsman, a grand individual and an extra sire; one 10 months' imp. bull; one heavy-boned yearling bull for farmers' trade; 20 choice cows and heifers in calf, at prices most reasonable. Farm ¼ mile from Burlington Jct. Station. MITCHELL BROS., Burlington, Ont.

BEST RESULTS ARE OBTAINED FROM ADVOCATE ADVERTISEMENTS.

WILLOW BANK STOCK FARM
Shorthorns and Leicesters

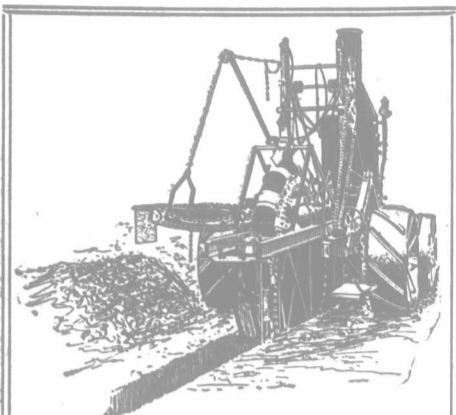
Herd established 1855, flock 1848, have a special good lot of Shorthorns of either sex to offer of various ages; also a grand lot of Leicester sheep of either sex—a few imported ones to offer. JAMES DOUGLAS, Caledonia, Ontario

"The Manor" Scotch Shorthorns

Present offering: Three choice yearling bulls. Young cows in calf. Yearling heifers: Clippers, Minas, Wimples, Julias, etc. Inspection solicited. Prices moderate. Phone connection.

J. T. GIBSON, DENFIELD, ONTARIO

Shorthorns and Swine—Am now offering a very choice lot of cows and heifers, safe in calf, and some choice young bulls for the fall trade; also Berkshire and Yorkshire pigs; showyard material. ISRAEL GROFF, Elmira Ont.



Get More Than Four Per Cent. Interest on Your Savings

YOU can make an investment pay \$15 to \$18 per day, nine to eleven months during the year if you will buy a

BUCKEYE TRACTION DITCHER

With this steam or gasoline power machine, yourself and a boy can dig from 100 to 150 rods of ditch a day, according to the depth and length of the trenches and the nature of the soil in which you are operating. One man can operate the gasoline machine.

Every Farmer Needs Drainage Ditches

You might as well do the work as some other man, and become your own boss. Farmers want machine-made ditches, because they are of uniform depth and perfect to grade, and the farmer does not have to board a gang of men, but only the operators of the machine.

Write to-day for Catalogue T and for information on what other men are making with a BUCKEYE.

The Buckeye Traction Ditcher Co. FINDLAY, OHIO

AGENTS \$3 a Day

NEW PATENTED LOCKSTITCH AWL
Sows Shoes, Harness, Buggy Tops, Canvas, Grain Bags, Anything. Sells at eight. Astonishing low price to agents. Big profits. To show it means a sale. We want a few good, live hustlers in each county. Splendid opportunity to make big money. No experience needed. Write quick—now—for terms. A postal will do. Send no money.
A. MATHEWS, 5944 Wayne Street, DAYTON, OHIO

MAPLE LODGE STOCK FARM
1854—1912

Have desirable Shorthorns and Leicester sheep. Cows are high-class milkers. A handsome young Clydesdale stallion for sale.

A. W. SMITH, Maple Lodge, Ontario
Luscan Crossing, G. T. Ry., one mile.

Shorthorns of Show Calibre

At present one nice red bull 12 months old (of the Bellona family) for sale at low price. Heifers of breeding age all sold.

Geo. Gier & Son, Grand Valley, Ont.

WOODHOLME SHORTHORNS,

I have for sale a number of choicely-bred Scotch Shorthorn heifers and several young bulls, all of high-class quality and sired by Imp. Dorothy's King—35009—, a Lady Dorothy.

G. M. FORSYTH, North Claremont P. O. & Sta.

SPRING VALLEY SHORTHORNS

Herd headed by the two imported bulls, Newton Ringleader, =73783=, and Scottish Pride, =36106=. The females are of the best Scotch families. Young stock of both sexes for sale at reasonable prices. Telephone connection.

KYLE BROS., - - Ayr, Ontario

IMPORTED BULL FOR SALE

Fletcher's Shorthorns—(Imp.) Spectator =50094=, and choice heifers for sale

GEO. D. FLETCHER, Binkham, Ont.
Eric Sta., C. P. R.

OAKLAND SHORTHORNS /

Present offering is five choice young bulls, from 7 to 22 months old, reds and roans, out of good dual-purpose dams, and sired by our champion Scotch Grey bull 72692. Visitors find things as represented. Good cattle and no big prices.

JOHN HILDER & SON, HENSALL, ONTARIO

Jas. W. Glendinning, Veterinary Surgeon, Beaverton, Ont.
Office and residence, Main St. Operation on Ridgling horses a specialty. Insurance arranged for if desired. Bell phone 61.

QUESTIONS AND ANSWERS. Miscellaneous.

ARSENATE OF LEAD—MILITARY QUERIES.

1. Does arsenate of lead lose its strength when it becomes hard and dry in the shipping, or by evaporating? Would it be all right to add water to make up the original number of pounds in keg?
2. What is the order of rank of officers in the Canadian regiment?
3. How long do they retain the title?
4. How do they attain the title?

A SUBSCRIBER.

Ans.—1. Commercial arsenate of lead is put up in paste and powder form. No doubt it is the paste form which is referred to here. The strength of the paste depends on the water content. A pound of lead arsenate paste containing 25 per cent. of water, will contain half as much again of actual lead arsenate as a pound of lead arsenate paste containing 50 per cent. water. Allowing the paste to dry out makes it more difficult to get a uniform grade of the material. It should be shipped with as nearly as possible 40 per cent. water in it, and the buyer should keep a layer of water over the paste to keep it from drying out. The only thing to do is, as suggested, make up with water to the original weight, being sure to get the water incorporated throughout the paste.

2, 3 and 4. Write Hon. Col. Sam Hughes, Minister of Militia, Parliament Buildings, Ottawa.

RAISING TURKEYS.

I read in "The Farmer's Advocate" last spring about someone who had raised young turkeys by feeding them shorts, and I have heard some people say they mixed shorts and bran together and had good luck raising them. Would someone who has tried either the shorts or bran, write soon about how they fed it and what they mixed it with, and what they gave their turkeys to drink? Is water good for young turkeys? Some say it causes bowel trouble. Would you prefer feeding the young turkeys something else besides bran or shorts? If so, what? Did you have good luck by feeding them shorts? Should young turkeys be greased with butter as soon as they are taken out of the nest? Would you kindly answer as soon as possible, as I expect some hatching out soon.

MRS R. K.

Ans.—There is considerable room for choice in selecting feed for young turkeys. Curds from sour milk, boiled rice, oatmeal, corn meal, cracked wheat, and other articles are good, but many of the most successful turkey breeders use shorts only. These they mix with skim milk for the first five weeks, except that the turkeys are started with bread-soaked in skim milk the first day, gradually substituting shorts on the second day, till the third day it is all shorts. They are mixed quite damp with the milk, but never sloppy, and fed from the hand five times a day, any that may be left over from the previous feeding being given each time to the hen in the coop and to other fowl. Sour food must be carefully avoided, as it causes bowel trouble. Leave no feed lying about on hot days. Allow all the skim milk or buttermilk the young poults want to drink. At each feeding, clean the dishes and give fresh milk. Give fresh water two or three times a day in a separate vessel; also keep it scrupulously clean. About one-fifth of one of the daily feeds should be onion tops, and the same proportion of another may be dandelion leaves, cut up fine and mixed with the shorts. This is the best known method of raising young turkeys, and has been tried with success by many of our readers.

For head lice, a little grease may be used. For the small lice, use insect powder. It is well to dust the hens well with insect powder before the turkeys are hatched, and so prevent further trouble.

SOLVING A DIFFICULTY.

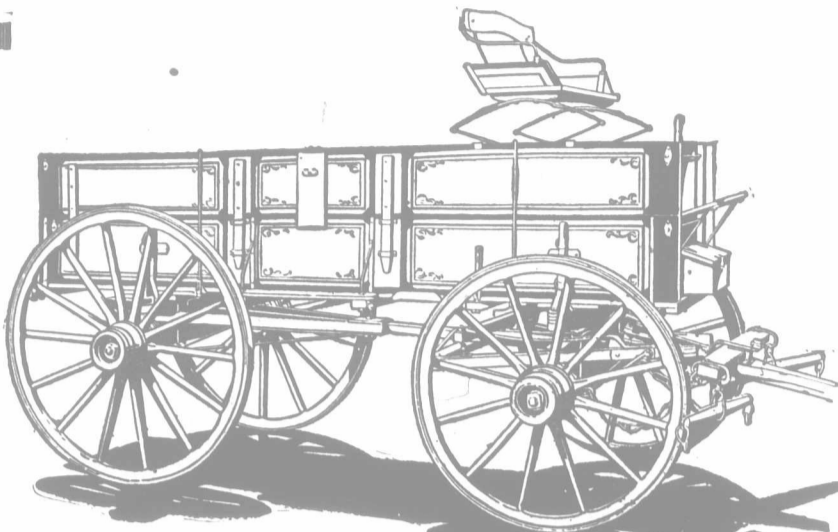
A Chicago banker was dictating a letter to his stenographer.

"Tell Mr. Soandso," he ordered, "that I will meet him in Schenectady."

"How do you spell Schenectady?"

asked the stenographer.

"S-c-e-r-e-r-e-r— Tell him I'll meet him in Albany."



SAVE YOUR HORSES

WHEN a wagon is designed for light draft, and the workmanship carries out that design, you have a wagon that is easy on horses. You need not be afraid to make your IHC wagon work. That's what it's built for. Loads and roads that make hard hauling are expected conditions for IHC wagons. IHC wagons have every advantage that first grade material and skilled labor can give them. They back up with actual results every claim we make for them. They haul heavy loads, with least strain on horses. Ask any farmer who has driven one of them. IHC wagons:

Petrolia Chatham

will do all the work you would ask of any wagon.

IHC wagon wheels—the foundation of wagon service—are built from selected, air-dried wood. Hubs, spokes, felloes and rims are designed for strength and service, and the workmanship on them carries out the plans of the designer. Hubs are accurately bored and mortised. Boxes are forced to position in the hubs by hydraulic pressure. Therefore, they fit accurately, and, the skains and skain boxes being paired, easy running is assured. The wheel has the proper amount of dish to make it as strong as a wheel can possibly be made.

The care and thought given to wheel construction and tire setting is evidence of equal thoroughness in the building of all parts of IHC wagons. Let the IHC local agent show you the extra value of other strong IHC points of construction. You can get literature and full information from him, or by writing the nearest branch house.

EASTERN BRANCH HOUSES

International Harvester Company of America
(Incorporated)

At
Hamilton, Ont. **London, Ont.** **Montreal, P. Q.**
Ottawa, Ont. **Quebec, P. Q.** **St. John, N. B.**



Present Special Offering

- 20 High-Class Scotch Shorthorn Heifers
- 10 High-Class Young Shorthorn Cows
- 5 High-Class Scotch Shorthorn Bulls

At moderate prices, including Marr Missies, Emmas, Cruickshank Nonpareils, Duchess of Glosters, Village Girls, Bridesmaids, Butterlys, Kinellar Clarets, Miss Ramsdens, Crimson Flowers; also a number of the grand old milking tribe, which have been famous in the showing.

ARTHUR J. HOWDEN & CO.
Columbus, Ontario



Shorthorn Bulls and Clydesdale Mares

If you are in the market for a young bull, write us for particulars, or, better still, come and see them. We have 13 young bulls, from 8 to 14 months old, of good breeding and quality. We also have four imported Clydesdale mares, safe in foal.

W. G. PETTIT & SONS, Freeman, Ontario

Bell phone. Burlington Jct. Sta., G. T. R., 1/2 mile from farm

SHORTHORNS

Have now a choice lot of young bulls to offer; also with something nice in heifers. Catalogue of herd and list of young animals on application.

H. CARGILL & SON, Proprietors, Cargill, Ont., Bruce Co.
JOHN CLANCY, Manager



THIS IS A GOOD TIME, AND I HAVE A GOOD PLACE, TO GET A HIGH-CLASS SCOTCH SHORTHORN BULL CALF by my great Whitehall Sultan sire, or a young cow in call to him, to start a herd that will be gilt-edged. SHROPSHIRE RAMS AND EWES, too, at low prices. CHILDREN'S PONIES. A CLYDES-DALE FILLY, such as I can send you, is one of the best things any man can buy. Just write me and say as nearly as possible what you want, and I will surprise you with prices on goods that are genuine.

ROBERT MILLER, STOUFFVILLE ONTARIO

Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine. Prices reasonable.

Porter Bros., Appleby, Ont., Burlington Sta. Phone.

QUESTIONS AND ANSWERS.
Miscellaneous.

QUACK GRASS.

Am inclosing a weed which I found on my farm, and which is giving me much trouble to get rid of. It grows very thick and matted, and is hard to plow. It chokes out most every kind of grain. Would you kindly let me know, through "The Farmer's Advocate," what it is, and if there is any way to get rid of it?
R. H. C.

Ans.—The enclosed specimen is the well-known, troublesome weed, quack grass, or twitch grass. It is a persistent grower, and from seed and underground rootstocks, soon becomes so thick as to crowd out other plants. Clean cultivation, preferably a summer-fallow, is the best method of checking and killing it. Plow lightly, and work frequently with a broad-share cultivator. The cultivator usually works better than the disk harrow, because it pulls the underground stems out, while the disk cuts them, and they sprout at each joint. Where the soil is very badly infested, it is sometimes necessary to rake up the rootstocks after cultivating and burn them. A good practice is to hoe the field after a season's summer-fallowing, or it may be sown to a smothering crop, like rape or buckwheat. Sow the rape in drills, and cultivate until it gets too large. Either of the crops are good to finish any plants of the weed which are still living, but in a sickly condition after the cultivation.

CUTTING CORN—PLANTING POTATOES AND MANGELS—FEEDING WHEAT AND GROWING ALFALFA.

1. Can fodder corn be cut with a binder? If so, how far apart is it necessary to drill the rows? What is the best distance for a big yield of fodder?
2. Have the stations conducted experiments as to the best time to plant potatoes (not early ones) for best results? What is your opinion?
3. How early should mangels be planted?
4. What is the relative value of wheat as compared with oats for feeding horses, when they are fed in about equal proportion? What proportion of wheat is best to feed?
5. When alfalfa is sowed with a nurse crop of barley, is the barley usually cut to make hay, or when ripe?

Ans.—1. The best binder for cutting corn is the ordinary corn binder, specially devised for this purpose. To cut with the ordinary grain binder, it would be necessary to sow it thickly in order to keep it fine. It would be better to plant in hills about 40 inches apart, and cut with the corn binder, or with a hoe.

2. Experiments have been conducted at the Ontario Agricultural College with respect to the time of planting potatoes. Results could be obtained by dropping a card to Prof. C. A. Zavitz, of the Field Husbandry Department, O. A. C., Guelph. Any time between May 24th and June 10th, according to soil, locality, and season, should prove suitable for the general crop.

3. Just as soon as possible after the grain seeding—the earlier the better. It is well to have the soil prepared in the autumn. Some put them in before the grain seeding is finished.

4. Whole wheat fed alone to horses has been found by experiments to be unsatisfactory. Fed mixed with other grains, it has been found more satisfactory. Half wheat and half oats is rather heavy feeding of wheat. One-third, or one-quarter, might give better results. Wheat is higher in carbohydrate material than oats, and slightly lower in protein and fat, by weight. Its proportionately high weight in comparison with oats, make it a much stronger feed. We must also remember that oats are the best feed for the horse.

5. The barley is usually sown very thin, about a bushel per acre, and is allowed to ripen.

OPERA AT HOME.

Old-timer—"Is your married life one grand, sweet song?"

Newlywed—"Well, since our baby's been born, it's been like an opera, full of grand marches, with loud calls for the butcher every night."

Breeders' Attention!

Summer Pests Injure the Condition of Your Cattle—Let Us Improve It.

Are your horses and cows tormented by flies? Are your cattle worried by lice? Do your sheep suffer from mange?



Cow Comfort

The most powerful insect destroyer and disinfectant, will rid all domestic animals of flies, mosquitoes and other vermin.

Far from injuring the skin, as do most preparations claiming to be "just as good," Cow Comfort possesses remarkable antiseptic qualities, and has a remarkable healing effect for all skin affections.

Given internally it constitutes the best preventive against cholera in swine or poultry and cures intestinal worms, sores in the mouth, etc.

Cow Comfort is a wonder worker, and a boon to all breeders. Sold in gallon cans at \$2.00 each, but as the contents of a can is to be diluted in four gallons of water, it makes the price really 40 cts. a gallon.

WRITE FOR CIRCULAR. DISTRIBUTORS FOR ONTARIO:

CLARENCE IMPERIAL CHEESE CO., LTD., CHATHAM, ONT.
THE SAPHO MANUFACTURING COMPANY, LIMITED
586 Henri Jullien Ave. (formerly Sanguinet St.), MONTREAL

Brampton Jerseys

cows and some calves for sale. Production and quality.

Bulls fit for service are getting scarce. Just a few left. Yearling heifers in calf are in great demand; 6 for sale; 6 now being bred Brampton Stockwell the sire. A few good

B. H. BULL & SON, BRAMPTON ONT.

Please Mention The Advocate

Cattle and Sheep Labels

Size	Price doz.	Fifty tags
Cattle	75c.	\$2.00
Light Cattle	60c.	1.50
Sheep or Hog	40c.	1.00

No postage or duty to pay. Cattle sizes with name and address and numbers; sheep or hog size, same and numbers. Get your neighbors to order with you and get better rate. Circular and sample. Mailed free. F. G. JAMES, Bowmanville, Ont.

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.

For Sale: Two Jersey Bulls

Twelve and sixteen months. Solid color, full black points. Sire Brampton Ruby Golden Fox. Dams pure St. Lambert cows. Price \$45.00 and \$50.00.

Apply to:
Geo. W. A. Reburn, Massawippi, Que.

For Sale—A pure St. Lambert Jersey bull, 14 months old, sire St. Lambert of Markham, No. 81910; dam Florence of Glen Rouge, No. 209540. For particulars, address:

H. M. ROLPH, Glen Rouge Farm, Markham, Ont.

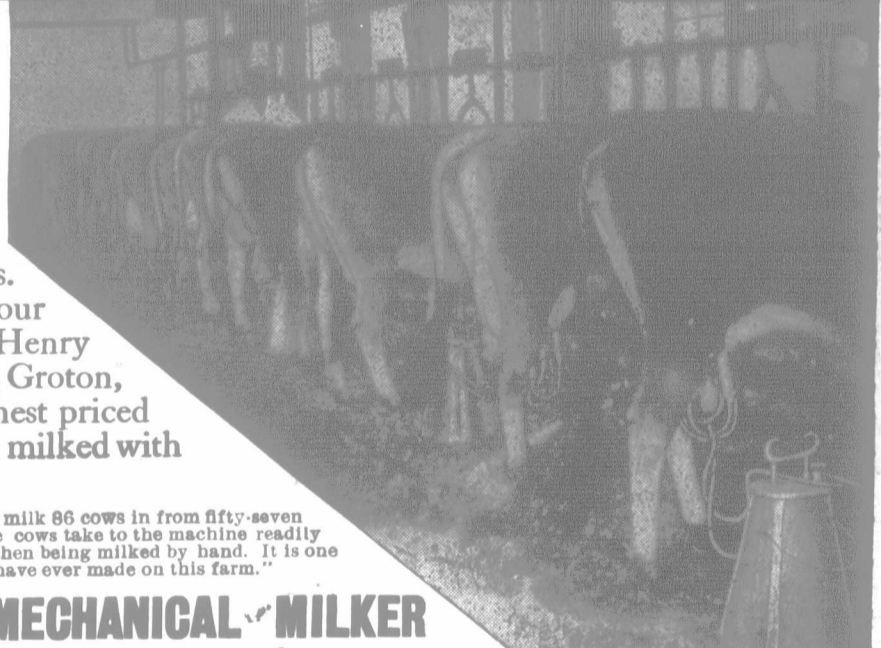
Balaphorene A. J. Jerseys—Foundation stock, St. Lambert, Coomania, Combination; stock from a grandson of Bin of Dentonia; also a grandson of the great Blue Blood of Dentonia, for sale. W. Wyandotte eggs, \$1 per 13. Joseph Seabrook, Havelock, Peterboro Co., Ont.

High Grove Stock Farm

No better Jersey blood in Canada. Stock all ages and both sexes for sale.
Arthur H. Tufts, P. O. Box 111, Tweed, Ont.

\$300 TO \$1000 A YEAR
IN EXTRA PROFITS FOR YOU

This is not a mere claim. It is the actual experience of all owners of Sharples Mechanical Milkers. We don't ask you to take our word, nor their word, for this. We stand ready to prove it on your own cows or no sale. Mr. Henry Fielden, Supt. Branford Farms, Groton, Conn., where some of the highest priced Guernsey cows in the world are milked with a Sharples Milker, writes:



"Two men with the Sharples Milker milk 86 cows in from fifty-seven minutes to an hour and a quarter. The cows take to the machine readily and seem much more contented than when being milked by hand. It is one of the most profitable investments we have ever made on this farm."

THE SHARPLES MECHANICAL MILKER

has the "Teat Cup with the Upward Squeeze," which pushes the blood back with each pulsation, overcoming the stumbling block of all former mechanical milkers. It leaves the teats in a perfectly normal condition, the same as after hand milking. The cow is treated so gently she enjoys it, and fears no injury, no abuse. She stands perfectly contented giving down her milk more readily and more freely than when milked by hand. The yield is increased—your dairy profits grow. Read this letter from Hon. Wm. C. Sproul, Chester, Pa.

"The Sharples Mechanical Milker seems to be entirely comfortable to the cows; in fact, our cows are in much better condition now than they were when the milker was started, and the quantity of the milk has increased about ten per cent. Altogether, I consider it about the most satisfactory investment about my dairy."

Fill Out the Coupon—Send for Catalog Today

Let us tell you how we will put a Sharples Milker in your dairy and guarantee it to give you perfect satisfaction or no sale. We prove it does the work to your satisfaction. We give you ample time for trial. Send the coupon now for catalog. Guaranteed by a company that has been making high-class dairy machinery for 31 years.

THE SHARPLES SEPARATOR CO.
WEST CHESTER, PA. Chicago, Ill.; San Francisco, Cal.; Portland, Ore.; Dallas, Tex.; Toronto, Can.; Winnipeg, Can.

The Sharples Mechanical Milker has few parts, is easily cleaned, and produces milk of the lowest bacterial content. It milks the cow cleaner than the average hand milker.

THE SHARPLES MECHANICAL MILKER

Name _____ P. O. _____ State _____

I am milking _____ cows at present.

The Sharples Separator Co. Gentlemen: Please send me the Catalog of the Sharples Mechanical Milkers.

Who Pays the Duty?

You can't get away from the fact that **directly or indirectly the DUTY has to be paid by the consumer**; therefore, why pay fancy prices for calf meals of foreign manufacture when you can buy CALFINE 15 to 20 dollars a ton cheaper and secure at least equal, and in most cases superior, results.

CALFINE

"The Stockman's Friend"

is a pure, whole-meal, nutritious meal for calves. It is now in use on many of the largest and best equipped dairy farms in the Dominion.

Ask your dealer for a 100 lb. bag of CALFINE as a trial—you will soon be back for more. If your dealer does not handle it, write us. We will do the rest.

Feeding Directions Sent on Application.

Canadian Cereal & Milling Co.
Limited
TORONTO, CANADA

15⁹⁵ AND UPWARD AMERICAN SEPARATOR

THIS OFFER IS NO CATCH. It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for \$15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Shipments made promptly from WINNIPEG, MAN., TORONTO, ONT., and ST. JOHN, N. B. Whether your dairy is large or small, write us and obtain our handsome free catalog. Address: AMERICAN SEPARATOR CO. Box 1200 BAINBRIDGE, N.Y.



A WISE MAN.

First Agitator—"How do you manage to be so popular with the people?"

Second Ditto—"It is very easy. Instead of trying to show the people I meet how much I know, I make it clear to them how much they know."

Suffered With Nerve Trouble For Two Years.

WAS IMPOSSIBLE FOR HIM TO SLEEP.

Mr. Chas. W. Wood, 34 Torrance Street, Montreal, Que., writes:—"For two years I suffered with nerve trouble, and it was impossible for me to sleep."

It did not matter what time I went to bed, in the morning I was even worse than the night before. I consulted a doctor, and he gave me a tonic to take a half hour before going to bed.

"It was all right for a time, but the old trouble returned with greater force than before."

"One of the boys, who works with me, gave me half a box of Milburn's Heart and Nerve Pills. I took them and I got such satisfaction that I got another box, and before I finished it I could enjoy sleep from 10 p.m. until 6 a.m., and now feel good."

The price of Milburn's Heart and Nerve Pills is 50 cents per box, or 3 boxes for \$1.25. They are for sale at all dealers, or will be mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

FILLY KNUCKLING.

I have a three-year-old mare knuckling over in the hind fetlocks. Would you kindly give me a good remedy for it?
G. W. B.

Ans.—Give rest and blister. For a blister, use 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip all the hair off around the joints. Tie so she cannot bite them. Rub well with the blister daily for two days, then wash off and apply sweet oil. Let loose now and oil daily. Let her out on pasture at this time. Repeat the blister every four weeks until cured. If she must be worked, the best treatment is showering with cold water frequently, and applying bandages when in the stable. Rest and blistering is the better treatment.

BREEDING BULL.

I have been a subscriber to "The Farmer's Advocate" for a number of years, and can honestly say that it is worth the money. We have found it a valuable paper in all respects, and especially in the care of young foals.

Will you kindly tell us at your earliest convenience, how many cows a young bull should serve the first season? We have a registered Shorthorn bull that was a year old the 10th of this month. He is well developed, and has been fed this winter on clover hay, cornstalks, roots, bran, oats and barley chop. How many cows should he be bred to this season?
E. B.

Ans.—This is a question which is difficult to answer, as a great deal depends upon circumstances. Do not overwork him. Many a bull has been ruined by doing too heavy a service during his first year. We have known bulls to serve upwards of 80 cows in a year, but this is too many for a youngster. From 30 to 50 would be quite enough, and under average conditions, the latter number is rather high. Perhaps a good average would be 40, and care must be taken that they are spread out over a reasonable length of time. You must, however, be governed largely by the vigor and development of the bull.

GETTING EARLIER FOALS— BLUE DEVIL.

1. I have a Percheron mare which will foal about July 4th. It is a little late. How can she be put back so she will foal a month earlier?

2. I have a field which has some blue devil in some spots. What time this season would I plow to keep them down, or would it be wise to summer-fallow?
U. S.

Ans.—1. Nothing should be done to defer or hasten her present foaling. The best way to get earlier colts and keep her breeding each year, would be to breed her on the ninth day after foaling. Most mares will take the horse on that date, and they are very likely to conceive. This will bring her foaling about three weeks earlier another year, and in two years' time she will be early enough. Of course, if this method is unsatisfactory for your conditions, she could be left a year without breeding, which is scarcely advisable, if a colt can be raised every year.

2. The blue devil or blue weed, is a biennial weed, with a deep tap root. It gives most trouble in pastures which cannot be brought under cultivation, and in crops where a regular rotation is not practiced. If kept closely cut to prevent seeding, it gives little trouble. It should be cut when in early bloom. Spudding below the crown will kill it, and if only in small patches, this may be feasible in this particular case. The seeds live in the soil for from three to five years. The main object is to prevent seeding. It is the old story of clean cultivation and a rotation of crops. Fall plowing, and thorough spring cultivation, worked in with the different crops, will exterminate it. If it is very bad, a good summer-fallow would check it.

A sale of Clydesdale horses was held in New Zealand recently, when J. F. Reid's stud of draft horses was dispersed. Competition was keen, and prices ranged up to 155 guineas, or, approximately, \$775.

SHE PAID To Escape These Disks!

We have in our office, this very minute, the letter telling how the plucky woman here mentioned paid her hard-earned money to escape washing these disks.



One Difference Between Tubulars and Others

Letters come to us telling how plucky women pay hard-earned money out of their own purses to escape washing disk-filled cream separators. Here is just one such instance: A lady and her husband decided to have a cream separator. He thought only of the purchase price and refused to pay more than the cost of a cheap, disk-filled machine. Like other women, this lady could not bear the thought of washing 40 or more disks twice a day. She wanted the wonderful

SHARPLES Dairy Tubular Cream Separator

She knew that Dairy Tubular bowls contain only the little piece shown in the right-hand pan and are the only easy-to-wash separator bowls. She also knew that Tubulars have twice the skimming force and skim twice as clean as others—thus paying more every year in extra profits than could be saved through buying any cheap machine. So, to what her husband was willing to pay she added enough hard-earned money from her own slender purse to buy a Sharples Tubular. And now she is one of the happiest, most contented separator users you ever saw.

What greater praise could be given Tubulars than the fact that women so greatly prefer Tubulars that they will pay to escape washing other machines? Ask for Catalog No. 193

Do you want a free trial? Do you want to exchange your old separator in part payment for a Tubular? You can do either.

THE SHARPLES SEPARATOR CO.
Toronto, Ont. Winnipeg, Man.

FIRST ANNUAL SALE

Under the auspices of DISTRICT OF BEAUVARNOIS LIVE STOCK BREEDERS' ASSOCIATION, will be held in connection with the Spring Show,

June 12th, 13th, 14th (14th Sale Day) at Ormstown, Que.

100 AYRSHIRES 30 HOLSTEINS

Showyard winners and Record of Performance animals, consigned by the foremost breeders and importers in Canada. If you need something for your show herd, or a foundation for a new one, here is your opportunity to secure them at your own price. Tuberculin tested. Also 20 REGISTERED CLYDESDALES.

J. P. CAVERS, Chairman Sales Committee
NEIL SANGSTER, President J. G. BRYSON, Secretary-Treasurer
Do not fail to write the Secretary-Treasurer for a catalogue

GLENHURST AYRSHIRES

Established over 50 years ago, and ever since kept up to a high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding; 45 head to select from. Let me know your wants.
JAMES BENNING, Williamstown P.O. Summerstown Sta., Glengarry

Stockwood Ayrshires

are coming to the front wherever shows. This herd is now headed by White Hill Free Trader (Imp.) No. 33273, championship bull at Sherbrooke; also headed the 1st-prize aged herd. Stock of all ages for sale. Satisfaction guaranteed.
D. M. WATT, ST. LOUIS STATION, QUE.
Telephone in house.



Lump Rock Salt, \$10.00 for ton lots, f.o.b. Toronto
Toronto Salt Works, 128 Adelaide St. E.
G. J. CLIFF, MANAGER. Toronto, Ont.

STONEHOUSE AYRSHIRES

Are coming to the front wherever shown. Look out for this at the leading exhibitions. Some choice young bulls for sale, as well as cows and heifers.
HECTOR GORDON, Howick, Quebec.

AYRSHIRES FOR SALE

Seven bulls and a few heifers of different ages, bred by Woodroffe Comrade, whose first heifer in milk, gave 11,392 lbs. milk, 480 lbs. butterfat in one year. Prices right. H. C. HAMILL, BOX GROVE P. O. ONT., Markham, G. T. R.; Locust Hill, C. P. R. Bell phone connection from Markham.

CHERRYBANK AYRSHIRES!

We are offering 5 young bulls fit for service, from dams of 40 lbs. to 50 lbs. daily of 4" milk. Anything else in the herd priced reasonable. This herd won over \$1,200 prize money in 1911.
P. D. McArthur, North Georgetown, Que.

Ayrshires and Yorkshires—We have still some good young bulls. Now is the time to buy for the coming season, before the best go. We have females any age, and can fill orders for carlots of Ayrshires. Pigs of either sex on hand.
ALEX. HUME & CO., Menie, Ont.

City View Ayrshires—All from R. O. P. ancestors. Young bulls of January, March, May and July, 1911; also calves of 1912. Right good ones. Males only for sale. Write, phone or call. JAMES BEGG, R. R. No. 1 half mile west. ST. THOMAS, ONT.

Hillcrest Ayrshires—At head of herd is Ivanhoe of Tanglewild, a son of the champion Ayrshire cow, Primrose of Tanglewild, R. O. P. test 16,195 lbs. milk and 625.62 lbs. fat; 60 head to select from. Inspection invited.
F. H. HARRIS, Mt. Elgin, Ont.

Silver Creek Holsteins

We are now offering about a dozen yearling heifers and 3 young bulls. They are all of superior type, and 7-day records that average 27 lbs., is at head of herd. A. H. TEEPLE, CURRIES P. O., Ont. Woodstock Station. Phone connection.

Dungannon Ayrshires and Yorkshires—For immediate sale are: Three choice young bulls and a few heifers; also young sows of breeding age, quality and breeding combined.
W. H. FURBER, Cobourg, Ont. L.D. Phone.

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 and sire, write me. Females all ages. Prices are easy. D. A. Macfarlane, Kelso, Que.

HOLSTEINS, YORKSHIRES, HACKNEYS

Our herd of over 50 Holstein females, from calves up, are for sale. Come and make your own selection. In Yorkshires we have a large number of young sows, bred and ready to breed, of the Minnie and Bloom tribes. Also one two-year-old Hackney stallion; black with white points. No fancy prices asked. A. Watson & Sons, R. R. No. 1, St. Thomas, Ont. L.D. phone from Fingal.

THE OXFORD DISTRICT HOLSTEIN BREEDERS' CLUB

WILL HOLD THEIR FIRST AUCTION SALE OF REGISTERED HOLSTEINS IN THE CURLING RINK.

City of Woodstock, on Wednesday, June 12th, 1912, Sale to Commence at 1 p. m. sharp

80 HEAD

Mostly R. of M. Cows and Heifers from R. of M. sires and dams.

Only a few males from high-performing ancestors.

This is strictly a high-class lot of Holsteins, and everything that goes into the ring will positively be sold to the highest bidder.



The Oxford Club are behind this sale, and have very strict rules, so as to give all a square deal.

A public meeting will be held the night before the sale to give all a good time.

Write the Secretary for a Catalogue.

GEO. RICE, Secretary,
Tilsonburg, Ont.

M. L. HALEY, President,
Springford, Ont.

R. E. HAEGER, Auctioneer,
Algonquin, Ill.

WANTED-CREAM

Highest Toronto prices paid for cream delivered at any express office. We pay all charges, furnish cans free, pay accounts fortnightly, engage man to collect at some points. Ice not essential. Write for particulars.

THE TORONTO CREAMERY CO'Y, LTD.
Toronto, O. Tario

Maple Soil Stock Farm

of High-Testing Holsteins—I have at present some bull calves, with dam and sire; dam averaging over 25 lbs. of butter in 7 days, testing better than 4 per cent. Phone connected.



H. C. Holtby, Belmont P. O., Ont.
Belmont Stn., C.P.R. or Gleanworth Stn., G.T.R.

Purebred 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 ASSO.
F. L. Houghton, Sec'y, Box 127, Brattleboro, Vt.

Holsteins of Quality

Write us to-day for our proposition, telling you how any good dairyman may own a registered Holstein bull from a Record-of-Performance cow without investing a cent for him. **Monro & Lawless, "Elmdale Farm," Thorold, Ont.**

The Maples Holstein Herd

offers a splendid lot of bull calves, all sired by Prince Aaggie Mechthilde and all from record of merit dams. For pedigrees and prices write

WALBURN RIVERS,
Folden, Ontario

HOLSTEINS & YORKSHIRES

MINSTER FARM offers a choice young boar fit for service, and bull calves from Lakeview Burke Fayne, whose sire has ten sisters averaging 30.63 lbs. butter 7 days. For extended pedigrees write:

R. HONEY & SONS, BRICKLEY, ONTARIO

Evergreen Stock Farm offers a choice lot of bulls ready for service, from high-testing, deep-milking Record of Merit ancestors. Also a few females for sale. Herd headed by Francy Sir Admiral; dam's record 26.71, sire Sir Admiral Ormsby. Write for prices.
F. E. PETTIT, Burgessville, Ont.

Maple Grove Holsteins—Herd headed by King Lyons Hengerveld, the greatest 30 lbs. back butter bred bull of the breed in this country. For stock of this kind, address:
H. BOLLERT, Tavistock, R. R. No. 5, Ont.

Holstein Bulls for sale—Springbank farm is offering two choicely bred Holstein bulls for sale at reasonable prices. For particulars write to: **Wm. Barnet & Sons, Living Springs P. O., Ont.** Ferguson station, C. P. R. and G. T. R.

Maple Line Holsteins and Yorkshires—Herd headed by Homestead Colantha Sir Abbecker 2nd, whose dam, sire's dam, g. dam, average 29.61 lbs. butter 7 days. For sale at bargain prices, choice bull calves from R.O.P. cows. **W. A. BRYANT, Middlesex Co., Cairngorm, Ont.**

Holstein heifer calves—From heavy milking, high testing unregistered dams. Sired by Cornelius De Kol, \$12 each.
GLENORO STOCK FARM, Rodney, Ont.

When writing mention this paper

GOSSIP.

A BIG SALE OF OFFICIAL-RECORD HOLSTEINS.

Another most interesting event to breeders of Holstein cattle, and all others interested in the great black and white breed of dairy cattle, will be the first annual sale of the Oxford District Holstein-breeders' Club, in the skating rink, in the town of Woodstock, on Wednesday, June 12th, when 80 head selected from the leading herds of Canada's greatest Holstein-breeding county, will be sold by auction. Under the rules governing the Club, no animal is accepted for entry in the sale until it is transferred to the officials of the club, consequently every animal appearing in the catalogue will positively be sold to the highest bidder, no matter what the price. This sale is intended to be an annual affair, and everything connected with it will be strictly straight and honorable, and every buyer can depend on getting exactly what was represented. In the selection of this lot, great care was exercised to allow only high-class representatives of the breed to be offered. An enumeration of the entire lot in these columns would require too much space, consequently only a few will be mentioned to show the high-class quality of those consigned, but a post card to Geo. Rice, of Tilsonburg, will bring a catalogue giving full particulars of the entire offering. For the benefit of the breeders who can make it convenient to arrive at Woodstock the evening before the sale, a public meeting, under the auspices of the Board of Trade of Woodstock and the Breeders' Club, will be held, when prominent speakers will be present to deliver addresses on topics of interest to live-stock breeders as a whole, and those engaged in dairy-stock breeding in particular. All breeders, and others interested, should make an effort to be present. The consignment of W. B. Poole, of Salford, consists of one male and five females. The male is a grandson of the great Prince Posch Calamity, who has sixteen sons in the R. O. M., and his dam, Midnight Gem De Kol, with a two-year-old R. O. M. record of 17.11, and at five years has a record of 22.79 lbs. The females he offers are all young, Doralice Myrtle De Kol, at two years, made a record of 61.5 lbs. milk in one day; 418.5 lbs. in seven days, and of butter, 17.54 lbs. Mary Mogi De Kol, at two years, made of butter, 14.92 lbs., and of milk 366.2 lbs. in seven days. Lena Josephine De Kol 2nd, at 4 years, made a record of 51.2 lbs. milk and 19.18 lbs. butter in seven days. This cow was sired by the noted show bull, Sir Mercedes Teake. Those mentioned are representative of Mr. Poole's offering, and they will be in calf to Sir Homewood Aaggie De Kol, a son of the famous Lady Aaggie De Kol, winner of the Guelph Dairy-test, with a record of 27.2 lbs. butter in seven days. T. L. Dunkin, Norwich, a born Holstein-breeder, is offering from his noted herd several of the choicest.

(Continued next week.)

80 HOLSTEINS 80

GREAT DISPERSION SALE
OF PURE-BRED REGISTERED HOLSTEIN CATTLE.

To be sold at Public Auction at Hill Cliff Stock Farm, Lot 1, Con. 1, Dereham, 4 miles east of Salford, C. P. Ry.; 4 miles west of Burgessville, G. T. Ry., on

MONDAY, JUNE 10, 1912

SALE TO COMMENCE AT ONE O'CLOCK, SHARP.

These cattle are bred from the best of sires, such as Prince Albert De Kol, a full brother to Lord Robert's De Kol, the sire of great producers; and Queen De Kol 2nd's Teake, whose name indicates his splendid breeding. The present herd header is Dutchland Sir Hengerveld Maplecroft. His sire has over 100 A. R. O. daughters, and 30 proven sons. This bull is for sale. He was bred by Fred F. Field of Brocton, Mass. In this herd there are females ranging from 40 pounds per day each for 2-year-olds, and 70 pounds for aged cows. Among these females is a cow 75 per cent. same blood as Helbon De Kol 31.54 pounds butter in 7 days. She is for sale, also many of her daughters from above sires. These cattle have been bred for persisting in heavy milk flow and symmetry of form. This sale will be held rain or shine. All trains will be met at above stations on day of sale. Lunch served to those from a distance. Catalogues now ready. Write for one to:

W. A. TACKELL, HOLBROOK P. O., ONT.

This herd will positively be sold to the highest bidder. No reserve whatever.

Clerk { **W. H. JONES, Leeds, Ont.** Auctioneers { **COL. R. E. HAEGER, Algonquin, Ill.**
WM. PULLEN, Woodstock, Ont.

KING SEGIS WALKER

The highest pedigree sire in Canada. Average record of dam, gr. dams, and g. gr. dams: Butter, 28.36 lbs.; milk, 544.42 lbs.; fat, 4.24 lbs. Fee for service, \$25. This sire's get are 80 per cent. females. For sale: A grandson of King Segis and Pontiac Pet, record 37.67 lbs. butter and the world's champion; also a bull calf whose dam is a daughter of Pontiac Korndyke, and **A. A. FAREWELL, OSHAWA, ONTARIO**, just completed a record of 722 lbs. in 7 days.

LAKEVIEW HOLSTEINS!

Bull calves sired by Dutchland Colantha Sir Mona, and out of heifers sired by Count Hengerveld Fayne De Kol.

Telephone. **E. F. OSLER, BRONTE, ONTARIO**

Fairview Farms Herd

Is where you can secure a son of Pontiac Korndyke, admitted by all breeders to be the greatest Holstein sire that ever lived. Look what his daughters are doing. Two of them with records over 37 lbs. each. Then, look at the work his sons are doing. **HE IS THE GREATEST PRODUCING SIRE OF THE BREED, THROUGH HIS SONS.** Every son of Pontiac Korndyke that has daughters old enough to milk is a sire of good ones. We can offer you several young ones that will give you great daughters.

E. H. DOLLAR, HUEVELTON, N. Y.

Near Prescott

SUMMER HILL HOLSTEIN CATTLE and YORKSHIRE HOGS

Our senior herd bull, Sir Admiral Ormsby, is the sire of the world's record 2-year-old for yearly butter production. Also sire of the three highest record four-year-olds in Canada. The dam of our junior herd bull made 34.60 lbs. butter in 7 days, and gave 111 lbs. milk per day. Come and make your selections from over 70 head.

In Improved English Yorkshires we have won 95 per cent. of all first prizes at Toronto Exhibition for ten years. We are still breeding them bigger and better than ever.

Buy Summer Hill Yorkshires, the big, quick-maturing kind, and double your profits.

D. C. FLATT & SON, R. F. D. Hamilton, Ontario, Bell phone: No. 2

Centre and Hillview Holsteins—We are offering young bulls from Sir Ladie Coraucopia Clothilde, the average of his dam sire dam and grand dams is 662.8 lbs. milk and 30.58 butter, 7 days, and 2,750.80 milk and 114.5 butter in 30 days; also Brookbank Butter Baron, who is a proven sire. He is sire of champion 3-year-old 30-day, 2-year-old 7-day and 2-year-old 30-day. Long-distance phone. **P. D. EDE Oxford Centre P.O. Woodstock Sta.**

HIGH-CLASS REGISTERED HOLSTEINS. Nothing more for sale until June 12th. On that date the Oxford Holstein Breeders Club will hold a Consignment Sale and we have decided to contribute sixteen head of choice females, all ages, and our splendid stock bull "Prince Abbecker Merceua". Any one wanting choice cattle at his own price should attend this sale as it is sure to be the best of this season.
A. E. HULET, Norwich, Ontario

WOOL

Let us know how much you will have this season, and the breed, that we may quote you our prices. Don't fail to write us before you sell.

E. T. CARTER & CO.

84 Front St. E

TORONTO, ONT.

Southdown Sheep

Orders taken now for this season's delivery. A low choice lambs and shearings on hand. Every animal shipped is guaranteed.

Angus Cattle

Write, or come and see my young bulls and heifers. They are going at farmers' prices.

ROBT. McEWEN, Byron, Ont.

O. I. C. White boar, Longfellow, register No. 6404; sired by Silver Jack 4341, dam White Beauty 3073. Longfellow weighs between 350 and 400 lbs., was farrowed Oct. 29, 1909; reason for selling is akin to too many of our breeding sows. Price, \$45 for quick sale.

GLEN ATHOL FRUIT RANCH
DAVID SMITH, Mgr., St. Catharines, Ont.

The Tamworths in Canada—I have a particularly nice lot of young Tamworths just now of both sexes, from youngsters up to breeding age. If you want the best types of the breed, write me. **HERBERT GERMAN, St. George, Ont.** Long-distance phone.

HAMPSHIRE SWINE

Both sexes and all ages, from imported stock. Prices reasonable.

C. A. POWELL, Arva, Ontario
Four miles north of London.

HIS IDEAL.

Maud—"I've just heard of a case where a man married a girl on his deathbed so she could have his millions when he was gone. Could you love a girl like that?"
Jack—"That's just the kind of a girl I could love. What's her address?"

SEVERE COLD

DEVELOPED INTO

PNEUMONIA

DOCTOR SAID HE WOULD NOT LIVE.

Next to consumption there are more deaths from pneumonia than from any other lung trouble.

There is only one way to prevent pneumonia, and that is to cure the cold just as soon as it appears. Dr. Wood's Norway Pine Syrup will do this quickly and effectively.

Mr. Hugh McLeod, Esterhazy, Sask., writes:—"My little boy took a very severe cold, and it developed into pneumonia. The doctor said he would not live. I got some of your Dr. Wood's Norway Pine Syrup and he began to improve right away. He is now a strong, healthy child, and shows no signs of it coming back."

Do not be talked into buying any other Norway Pine Syrup, but insist on getting the original "Dr. Wood's." It is put up in a yellow wrapper; three pine trees the trade mark; price, 25 cents.

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

GOSSIP.

A ewe in the flock of G. Foot, Fifield, Neville, England, recently gave birth to five lambs, four of which are living and apparently doing well.

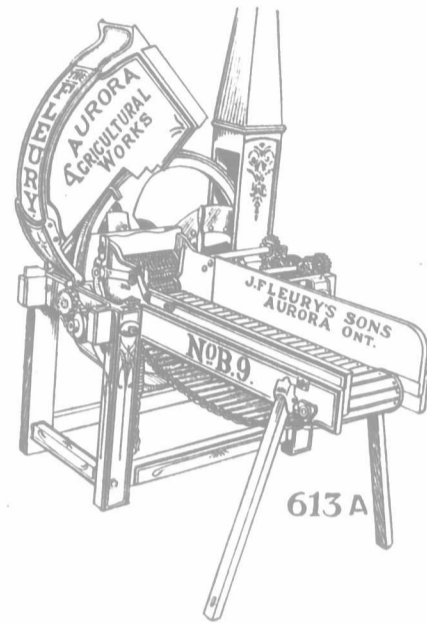
On Tuesday, April 30th, 1912, one of the largest consignments of Ayrshire cattle that ever left Scotland for the United States, was despatched to New York. A special train was arranged for conveyance of the cattle, the entire lot comprising some 150 head. Along with these cattle, a fine lot of Blackface yearlings were also shipped to the same destination.

Clydesdales are still coming to Canada. A recent issue of the Scottish Farmer contains an account of nine head being shipped by Jas. Argo, Crannabog, Rothienorman, to John Logan, Westview, Sask. Messrs. A. & W. Montgomery, Netherall Banks, Kirkcudbright, shipped a big black horse to Wm. Colquhoun, of Mitchell, Ont., and the Douglas Lake Cattle Co., Douglas Lake, B. C., got a two-year-old colt from Peter Dewar, Arrprior, Kippen. Besides these coming to Canada, J. W. Ogden, of the United States, gets six mares from John Slater, Grange, Kirkcudbright.

HOLSTEINS, YORKSHIRES, LEICESTERS AND HACKNEYS, AT SPRUCEDALE.

Five miles directly west of St. Thomas, on the main road to Fingal, lies the splendid 300-acre stock farm, Sprucedale, the property of A. Watson & Sons, breeders of Holstein cattle, Yorkshire swine, Leicester sheep, and Hackney horses. Sprucedale is one of the finest stock farms in the county of Elgin, beautifully situated in one of the banner districts of Ontario's most beautiful country. The farm appointments leave little to be desired for the comfort and convenience of both man and beast, in fact, when being shown by Mr. Watson, we were forcibly impressed with the idea that home life on such a farm as Sprucedale, about solves the problem of how to keep the young men on the farm. Mr. Watson & Sons are firm believers in the fact that it costs no more to keep a registered animal than it does a scrub or grade, and nearly everything on the farm is registered, and any are for sale. The Holstein herd numbers something over thirty head, from calves up, and while as yet none of them have ever been officially tested, they have the appearance of producing ability that make the official records when given a chance. Any of these are for sale. Some six or eight yearlings, and the same number of two-year-old heifers, look like good buying at the prices asked. The stock bull in service is King Peter Teake, a son of Peter Teake, O. A. C., and out of the great cow Queen Mab. The Yorkshires are of the usual modern type. The brood sows are all of the ever-popular strains, Minnies and Blooms, the foundation stock coming principally from the noted Millgrove and Monkland herds. For immediate sale are a number of young sows, some bred and others of breeding age, as well as young ones of both sexes. The Leicesters need no words of comment as to their type and quality. This season's crop of lambs is got by Marr's Tom 13409, bred by John F. Marr. They are doing remarkably well on the rich pastures of Sprucedale, and look good for reaching up to the toppers by fall. At the head of the Hackney stud is the noted prizewinner, Guelph Performer 89, winner of first at Toronto, London and Ottawa in 1901, and second at Toronto in 1902. He is a black of true Hackney mould and action, sired by the noted Square Shot (imp.), and out of the great prizewinner and many times champion, Miss Baker (imp.), by the world-renowned Ruby. Among the females is the noted show mare of other days, Wenona Dainty, bred by Burgess & Sons, of Wenona, Ill., sired by County Gentlemen 3rd, dam Black Bess, by Hawkstone Shales. Among her other winnings, this mare has to her credit first at Illinois State Fair for both 1894 and 1895. Out of her, and sired by the renowned Jubilee Chief (imp.), is Jubilee Chief 2nd, a black two-year-old stallion of splendid promise. As before stated, anything on the farm is for sale, including several grade Clydesdales.

Cut and Deliver



your coin by our

B. 9 BLOWER CUTTER

Fourteen-inch Mouth; Three Knives; Carrier Feed Table. Simple construction. Does the work. MODERATE IN PRICE.

J. FLEURY'S SONS, AURORA, ONT.

Medals and Diplomas — World's Fairs, Chicago and Paris.

IMPORTED SHEEP

Those wishing an imported ram, a few choice imported ewes or a few show sheep to make up their show flock, should write me, after this date, to

MOLESCROFT, BEVERLEY, E. YORKS, ENGLAND

G. HODGSON,

Brantford, Ontario

AMERICAN SHROPSHIRE REGISTRY ASSOCIATION
Only Shropshire Association recognized by U. S. Government. Largest membership of any live-stock association in the world. Life membership \$5.00. No yearly dues. Write for information. **J. M. WADE, SECRETARY, LAFAYETTE, INDIANA**

Large White Yorkshires

Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin, at reasonable prices. All breeding stock imported, or from imported heads. Write or call on:

H. J. Davis, Woodstock, Ont.

C. P. R. and G. T. R. Long-distance phone.

PLEASE MENTION THE ADVOCATE.

Hampshire Pigs
PRESENT OFFERING—7 Sows in pig from imported stock. Write for prices. Long-distance phone.
J. H. RUTHERFORD, Box 62, Caledon East, Ont.

Newcastle Tamworths and Clydesdales

Present offering: 15 boars, from 2 mos. to 1 year. Sows same age, some bred, others ready to breed. Several yearling sows that have raised one litter each. All by imp. boar, dam by Colwill's Choice, Canada's champion boar, 1901, 2, 3 and 5. Also one or two choice Clydesdale fillies for sale. L.-D. Phone.

A. A. COLWILL, NEWCASTLE, ONTARIO

When writing please mention The Advocate

ELMHURST LARGE ENGLISH BERKSHIRES
Present offering: Select sows bred for spring farrow. 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, GAINSVILLE P. O., Langford station, Brantford and Hamilton Radial.**

Ohio Improved Chester White Pigs—Largest strain, oldest registered herd in Canada. Choice lot of spring pigs; pairs and trios not akin; register; express paid; safe delivery guaranteed.
E. D. GEORGE & SONS, Putnam, Ont.

Maple Villa Yorkshires and Oxford Downs. We offer 30 splendid service boars; 50 strictly choice sows, bred and ready to breed; also ewes of quality bred to imp. rams.
J. A. GERSWELL, Bond Head, Ont

Hampshire Hogs—We have the greatest prize-winning herd of Hampshire Swine in Canada, bred from the best strains of the breed; stock of both sexes not related. **Hastings Bros. Crosshill P. O., Ont., Linwood Sta., C.P.R., Newton Sta., G.T.R., Telephone in residence.**

Morrison Tamworths
Bred from the prize winning herds of England; choice stock for sale; also Shorthorns of the deep milking strain.
CHAS. CURRIE, Morrison, Ontario

MAPLE GROVE YORKSHIRES

AS GOOD AS ANY.
S. H. Jack (imp.) champion and silver medal boar at Toronto for three successive years at head of the herd. Present offering: Fifteen young sows all good, being bred. Eight young boars fit for use; choice long fellows of excellent breeding and younger pigs of various ages. Pairs not related. Our prices will suit the average farmer, but are consistent with the best quality. Stock shipped C. O. D. and on approval. Correspondence and personal inspection invited. Long-distance phone via St. Thomas.

H. S. McDIARMID, FINGAL, ONTARIO

Shedden Station, P. M. and M. C. R.

Duroc Jersey Swine

A choice lot of boars fit for service. **WANTED**—Twenty dairy calves, seven to twenty days old, grades or pure bred; state price F.O.B.

Mac Campbell & Sons, Northwood, Ont.

"It Took Me Fifty Years to Know How to Give You Better Roofs than any other Man"

"I tell you, every farmer in Canada should realize the big share a good roof has in making a good barn. That is my life-work—making roofs. I have been making my roof better and better for more than fifty years. What I have done for farm roofs is one of the biggest things ever done for people who farm."



"You ask me why a barn roof is so important. I will tell you. You build a barn and expect the roof to protect it many years. You put thousands of dollars' worth of produce under that roof while it lasts. Every pound of this produce costs you hard work. If a poor roof lets it get spoiled by wet, you lose money year after year. This lost money is many times the roof cost. Some roofs will last for several years. Some roofs will last if they are kept painted. But a roof is mighty hard to get at. It is not too safe to work on anyhow. Once a roof starts to leak, it is often left as it is. The result is the things you have in your barn spoil. This is lost money, and soon amounts to more than the cost of a good roof."

This Took 50 Years

"You are beginning to see something of the big work I have done. I have made a low-cost roof that stands terrific cold and heat, that stands tremendous rains, that stands ice, that stands earthquakes. In fifty years, I have made Pedlar roof better and better by little points added every year. It has world sales to-day, just because it is the best roof in the world at its very moderate price."

get it. I stuck to it just as carefully as I had stuck to bettering my roof. And I got it at last. That's the metal I use to-day."

You Get the Benefit

"My roof is the only roof in the world with this kind of non-rusting iron in it. I am the only man a farmer can come to and say, 'I want a hundred-year roof at about the price I would pay for cedar shingle.' I am the only man that can deliver that kind of goods."

"My roof will not rust to the leaking point within 100 years. It saves the barn and its product from the weather. It saves the barn from thaw-water and lodged ice, because the seams cannot be gouged apart. It saves the barn from fire, because sparks cannot burn it. A burning stick on the roof will not harm it, or harm the barn under it. Lightning cannot burn a barn with my roof on it. My roof is a perfect conductor of electricity. My roof has 'give' in it to defy heat and frost, and protects in winter and summer. It protects even though the rafters sag. Wind cannot blow my roof off a barn. This is because it is a ventilated roof. It keeps your barn ventilated and stands the heaviest winds safely."

Get My Barn Book

"I want to send you my book, 'ROOFING RIGHT.' This lets you dig into more facts about the Pedlar roof. You will see how clean it is. It gives the best cistern water you can gather, as it is self-cleaning. This book shows scores of good barn designs—the best barns in Canada. Every one has my roof on it. You will get big help from my book, and I will send it free for a post-card, because you can plan your barn from it, whether you use my 100-year roof or not."

326

is worth going after a good long ways."

Stands the Arctics

"This roof is so good that the Canadian Government Bernier Arctic Expedition used it for the Arctic regions. Here is immense cold and sweeping winds and ice and poor foundations to stand up under. The North-West Mounted Police use it. The Canadian Government has found no better roof for them. My roof is a good roof for the Arctic Circle. It is a still better roof for milder climates elsewhere."

Stands the Tropics

"But that is not all. My roof is used in the West Indies. Here is a temperature of 135 degrees at Porus, Jamaica. My roof stands it. In Jamaica during rainy season at Montego Bay, rain falls 10 inches in a single day. My roof stands it. In Ontario rain falls 30 inches in a whole year. My roof in Jamaica stands in 24 hours the rainfall it has easily 4 months for in Ontario. Is that a good roof? Is a roof that stands the severe conditions in both Arctics and Tropics good enough for you? You get exactly the same article, made on the same machines."

Used All Over the World

"Not only that, go down to South Africa. Go to the farms there. Go around Port Elizabeth, or Durban, or up in the Transvaal. You'll see my roof there. People will go around the world for my roof, because it is the best roof in the world. It will last 100 years. People use my roof in Japan—an earthquake country. They get it from me. They have searched the world for a roof that would stand earthquake straining. My roof will."

MY LATEST TRIUMPH

"Then, a few years ago, I put my finishing touch that made my roof wonderful. I had been troubled, not by my roof design, but by the metal in it. It seemed impossible to get a metal which would not rust. I had to take the best metal I could get. The design was all right. I had been making that design better for fifty years. At last I struck a clew in Europe."

"You know they have cathedrals there that are hundreds of years old. Yet the iron hinges on the doors are as good as ever to-day, though they were hammered out hundreds of years ago. I said to myself, 'Why not make up my roof in this peculiar kind of iron, so my roof will last like those door hinges?' Well, sir, that was a hard job. It was hard to get that iron duplicated. I worked for a long time and my chemists worked with me to

"I am the best friend the farmer has, because I have given him one of the best roofs in the world at a very low cost. I want to send out more of my barn books, because I want to see good barns built. I send a book free to you, if you will ask for it. Write me to-day."

G. R. Pedlar

A Roof for Any Man See What a Good Roof Can Do!

"I have spent my life making a low-cost roof that any man or his tinsmith could lay right. This roof of mine saves the stuff stored under it. It saves the barn framing and beams. It saves the foundation. This roof of mine doesn't need special roof timbering at all."

Good for 100 Years

"The big point about my roof is that it cannot develop leaks after you have had it up a year or two. It is a real roof from the first year it is on your barn to the last year. And do you know when that 'last year' will be? You will use that barn, and your son will use that barn, and your grandson will use that barn before that 'last year' comes. I want to pound the fact home to you that when you get a roof from me, you get a roof that is good for one hundred years. Think of getting a roof that makes your barn good for a hundred years. And that at about the price of an ordinary roof."

"That is why I say, 'I have helped the farmer more than any man ever did.' My roof will protect a good \$100,000 of produce in your barn in 100 years. A roof that will do that

The PEDLAR PEOPLE Limited, of Oshawa

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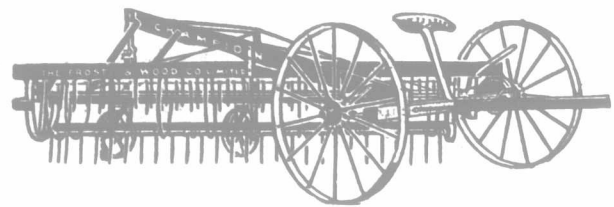
We want Agents in some sections.

Write for details.

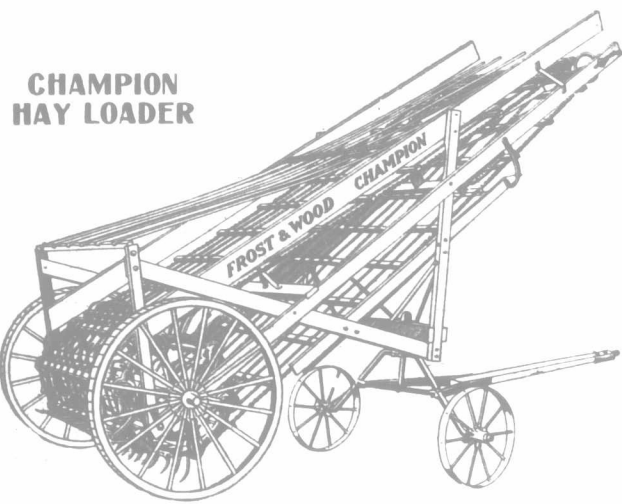
Direct your enquiry to the Pedlar Place nearest you. They will answer you promptly and save you time.

WHEN WRITING ASK FOR PEDLARIZATION BOOK NO. 150.

Get Ready for Harvest



SIDE DELIVERY
RAKE



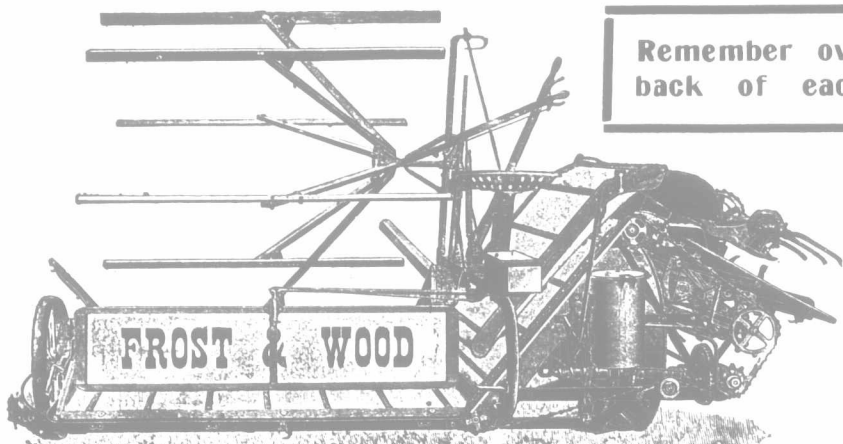
CHAMPION
HAY LOADER

FROST AND WOOD Champion Hay Loader

and Side Delivery Rakes

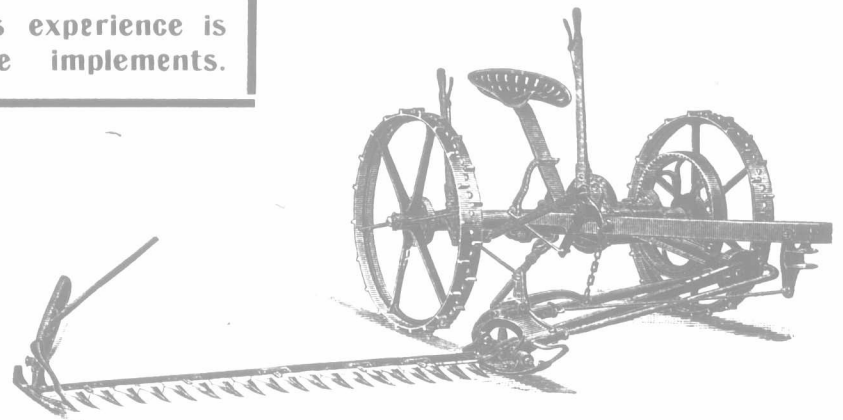
The Rake The top illustration shows our Side Delivery Rake which is chiefly used with our "Champion" Hay Loader. The Rake makes windrows best suited to the proper working of a loader. The operator simply drives round the field—he doesn't have to give any attention to the working of the machine—the action of the three sets of teeth leaves the hay in the best possible condition for curing—loose and bulky. Light or heavy crops are all the same to this Rake—it is built for hard work. The Castor Wheels at the rear ensure perfect work under all conditions. This machine is made of the finest quality of materials, is well braced and strongly built.

The Loader The "Champion" can load at the rate of two tons in ten minutes—think that over for a few minutes. It has six tooth bars, each containing twelve properly shaped malleable teeth. The Apron consists of the finest quality of straight grained slats, tough rope and steel chain. The "Champion" is provided with heavy wind slats to prevent high winds from blowing the hay off the carriers when the machine is in operation. You can't realize the time, labor and money saving qualities of these two machines until you have actually tried them in the field. Write for our fine illustrated Catalogue—it gives you a full list of harvesting machinery.



FROST and WOOD BINDERS.

Remember over 70 years experience is back of each of these implements.



FROST and WOOD No. 8 MOWER.

This binder is positively in a class of its own—far ahead of any other machine on the market. We haven't room to detail all its many excellent merits here, but we do want you to consider one important feature—our Eccentric Sprocket Wheel.

Notice that there are **three long** spokes and three short ones—based on the old leverage idea, the longer the bar, the greater the power. When the grain is being compressed and tied, the packer arms require all the power they can get to make nice tight sheaves, and the chain which drives the Eccentric Sprocket is then pulling over the long arms of the wheel, exerting a steady, powerful draw. After the bundles are compressed and tied, the chain has reached the short arms of the Eccentric Sprocket, and must therefore travel faster, thus the bundles are discharged quickly, and everything is ready again for another bundle to be compressed, tied and discharged. In short, the long arms develop **power**, the short arms **speed**. But get our Catalogue, and go into the whole details carefully.

Your Wants Supplied.

Our agents handle a full line of Farm Implements. They can supply you with practically everything you need for your farm, including Gasoline Engines, Manure Spreaders, Wagons and Carriages.

Here's another case where space prevents us giving all the good points, so we urge you to write for our Catalogue, if you are thinking of buying a reliable Mower. Ours are built in various sizes from 3 ft. 6 in. cut to a 7 ft. cut. You will notice that the small gear wheel is inside the large one on what is called the **Internal** Gear principle. Both these wheels travel in the same direction. Now, on most Mowers the gears are arranged exactly opposite, the small gear wheel being on the outside. This is a decidedly bad feature, because the wheels work one **against** the other, causing a great amount of friction, wearing down the cogs, and eventually a loose connection. You can easily prove the superiority of the Internal Gear principle, for as soon as you drop the bar and start the team the knives begin cutting. There is no lost motion, no jerks, no backing up—the action is immediate. Our Mower is liberally supplied with Roller Bearings—ensuring long life and light draft. It is made of first-class materials, and put together by expert workmen. Let us send you the whole story to read at home—free.

SOLD IN WESTERN ONTARIO BY

COCKSHUTT PLOW COMPANY LIMITED **BRANTFORD**

IN EASTERN ONTARIO, QUEBEC AND MARITIME PROVINCES BY

FROST & WOOD CO., Limited, Smith's Falls, Montreal, St. John, N. B.