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AND HOME MAGAZINE

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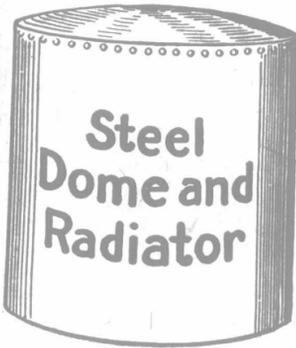
Install A Modern Furnace One With Latest Features, And Built To Last



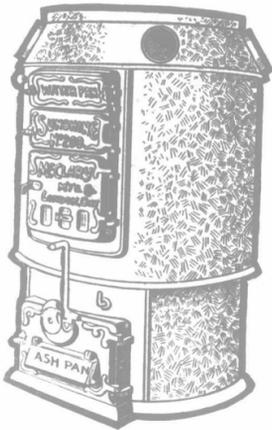
The Two-piece Firepot



Three-sided Grate Bars



Steel Dome and Radiator



CONSIDERING its extra weight, the superior quality of the materials, the skill and experience put into it, McClary's Sunshine furnace is the cheapest furnace on the market. You get more value for every dollar you invest in the Sunshine than you do in any other furnace.

McClary's Sunshine Furnace is the product of the largest stove and furnace makers in the British Empire. It has labor-saving, health-producing and fuel-economizing features—the result of long experience—that no other furnace has.

It has, for instance, the "rocking-down" system which eliminates the old-time back-breaking, dirty shaking. It has a conveniently located water-pan over the fuel door. It has a sure-acting dust-flue to prevent dust from falling ashes getting into the house. It has an almost straight-sided fire-pot to prevent ashes forming "pockets" and deadening the fire. And some coal-economizing features our agent will be glad to tell you about.

But, too important to overlook, is the fact that the Sunshine furnace is built to last. The materials are the best, and every piece of metal is tested. Every operation in the making is inspected, too. Nothing is left to chance.

As an example of the quality of materials used, take the fire-pot. This is of semi-steel—not gray iron as are other fire-pots. Semi-steel is not affected by sulphur fumes from burning coal. In addition, a semi-steel fire-pot weighs twenty per cent. more than the same size and pattern in gray iron.

But that's not all. The fire-pot is in two pieces to prevent it cracking from extreme expansion or contraction. One-piece fire-pots are continually cracking, having to be replaced.

Then take the grate bars. Those on the Sunshine are very heavy and have three sides—three lives. By exposing a different side to the fire every few days, the life of the grates is greatly prolonged.

Examine the dome, too. It is of heavy steel, as is also the radiator. The frame of the ash-pit, the doors on the furnace, the casing—every part of the furnace is of the most durable material. All joints are accurately fitted together, and rendered dust-tight by a special cement originated by McClary's.

Last, but not least, the McClary Company place the services of their corps of experienced installation men at your disposal. These men will assist you and the McClary agent in your locality to plan the arrangement of your heating system. They will also co-operate with you in other ways to insure the proper installation of your furnace.

Furthermore, the Sunshine furnace is guaranteed to heat your house to your satisfaction, if installed according to the directions of the McClary experts. You therefore run absolutely no risk in having one installed.

Send your name and address to our nearest office, with particulars about the size of your house, and we will tell you about how much it will cost to install a McClary's Sunshine in your home. The latest Sunshine booklet is also free on request.

McClary's Sunshine Furnace

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326

The Call of the North

Do you know of the many advantages that New Ontario, with its millions of fertile acres, offers to the prospective settler? Do you know that these rich agricultural lands, obtainable free, and at a nominal cost, are already producing grain and vegetables second to none in the world.

For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

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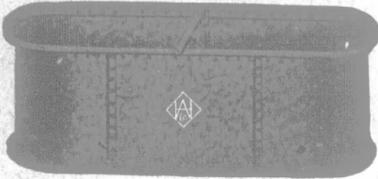
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Write for further particulars.

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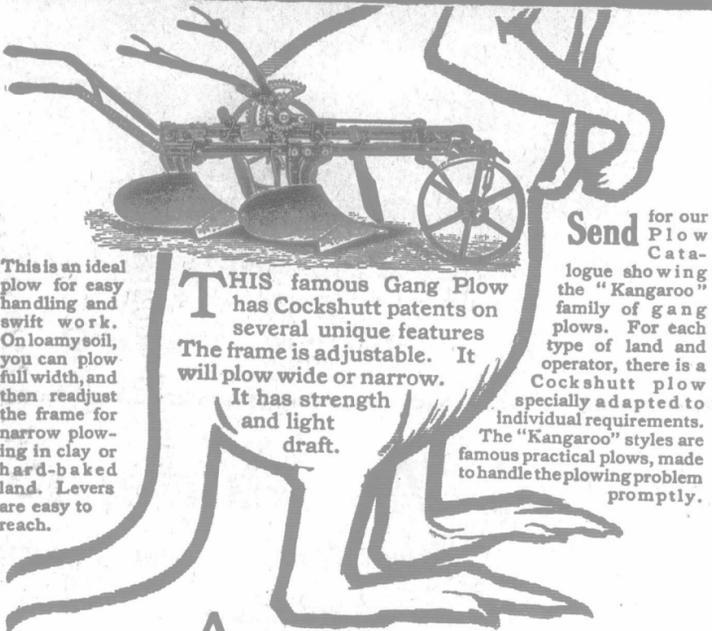
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Build Silos, Dwelling, or any class of building from Concrete Block. The London Adjustable Concrete Block Machine makes every kind and size of block. High grade. Moderate price. We manufacture a full line of Concrete Machinery. Tell us your requirements.

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Dept. B, London, Ont.

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This is an ideal plow for easy handling and swift work. On loamy soil, you can plow full width, and then readjust the frame for narrow plowing in clay or hard-baked land. Levers are easy to reach.

THIS famous Gang Plow has Cockshutt patents on several unique features. The frame is adjustable. It will plow wide or narrow. It has strength and light draft.

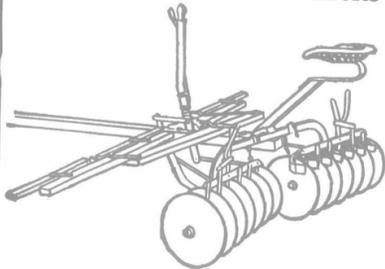
Send for our Plow Catalogue showing the "Kangaroo" family of gang plows. For each type of land and operator, there is a Cockshutt plow specially adapted to individual requirements. The "Kangaroo" styles are famous practical plows, made to handle the plowing problem promptly.

Any "Kangaroo Gang" is a handy plow of its class. The walking gang illustrated above is an exceptional favorite, because it is easy to guide, raise and adjust, while in motion. The operator has little difficulty in swinging it around obstructions. The light draft, wide furrow adjustment, and quick-change feature, mean quick plowing. See nearest agent for details.

COCKSHUTT PLOW COMPANY LIMITED
BRANTFORD, WINNIPEG

Sold in Eastern Ontario, Quebec and Maritime Provinces by
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Montreal SMITHS FALLS St. John, N.B.

The "Bissell" has the capacity



Because of its capacity, time after time the "Bissell" Disk Harrow has done **DOUBLE THE WORK** in field competition against all competitors, under the same conditions.

The special shape of the "Bissell" plates cause them to enter the ground naturally and **TURN THE SOIL EASILY**. Steel scraper blades meet the

Disk Plates chisel fashion and keep the plates clean of trash by movable clod irons—the only Harrow that has this feature. Anti-friction balls (40) are used in the bearings, on every "Bissell" Disk.

The seat is placed back on the Harrow so that the weight of the driver when riding balances over the frame and **REMOVES NECK WEIGHT**. The hitch is well back, **MAKING LIGHT DRAUGHT**.

Search the Continent over and you will not find a Harrow with such cutting capacity, easy draught and correct proportions as the "Bissell." A postcard to Dept. W will bring you a free catalogue.

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N.B. This year the "Bissell" exhibit of Disk Harrows and Steel Land Rollers will be grouped with the John Deere Plow Co. Farm Machinery at the Toronto Exhibition. Friends of the Bissell Company will remember the location.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 19th day of September, 1918, for the conveyance of His Majesty's Mails, on a proposed contract for four years, six times per week, over Glencoe (north) rural route, from the Postmaster-General's Pleasure, next.

Printed notices containing further information, as to conditions of proposed contract, may be seen, and blank forms of tender may be obtained at the Post-Offices of Glencoe, and at the office of the Post Office Inspector, London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Contract Branch,
Ottawa, 8th August, 1918.



MAIL CONTRACT.

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G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Contract Branch,
Ottawa, 8th August, 1918.

Take Warning—Keep Clean with Comfort



Do not be led astray by others. We manufacture the bath tub you have heard recommended so highly. Ours is a Canadian product, manufactured in Canada by Canadians, backed by Canadian capital, and carries the five-year guarantee.

We have placed thousands of tubs in Canadian homes this year, and have yet to find a dissatisfied customer. Do not delay, but write us at once for circular describing this tub in detail, or send us a money order for \$7.50, and we will immediately send to your address, express prepaid, one of these bath tubs. If you are not perfectly satisfied with it on receipt, send it back at our expense, and your money will be cheerfully refunded.

FOLDING BATH TUB CO., LIMITED
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Put this Cutter to the Hardest Test

then you'll know why Experiment Station Officials—and thousands of farmers, as well—unanimously agree that for power, speed and capacity, the

"SILBERZAHN"
ENSILAGE CUTTER

is the most uniformly satisfactory. It's the cutter that is honestly built from truck to tractor. In simplicity, durability, enormous capacity, economical power, absolute safety, the "Silberzahn" has no equal. Send now for new catalog, prices and details of Free Trial Offer.

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Dawson's Golden Chaff Seed Wheat for Sale, from winning field in standing grain contest in Waterloo County. Pure and free from all weeds. \$1.25 per bushel; bags free.

GEO. R. BARRIE Galt, Ont.
R. R. No. 7

Burned to the Ground AGAIN

BT Steel Stalls Uninjured

Two years ago, a barn was built on the Boys' Farm and Training School, Shawville, P.Q., and fitted with 30 BT Steel Stalls and Stanchions.

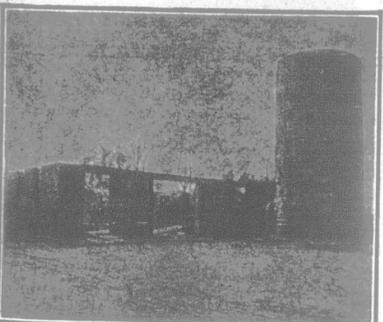
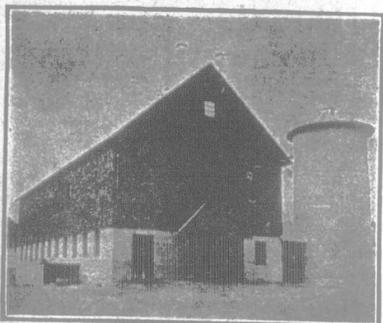
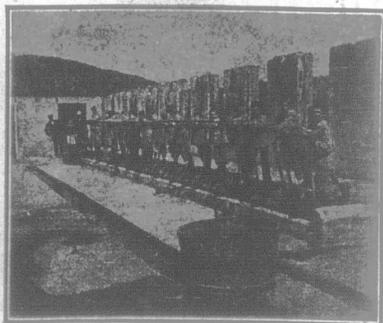
In April, 1912, it burned to the ground, leaving only the cement floors, walls and BT Steel Stalls.

Mr. Matthews, Principal of the School, writes: "I am very glad I put in your Steel Stalls. One dollar makes them as good as ever after the fire."

The barn was rebuilt and the same Steel Stalls used again.

We wrote for photos of the barn in July of this year, and received the letter, copy of which appears below.

This letter and the photos tell the story better than words. They prove beyond question that the BT Steel Stalls are fireproof.

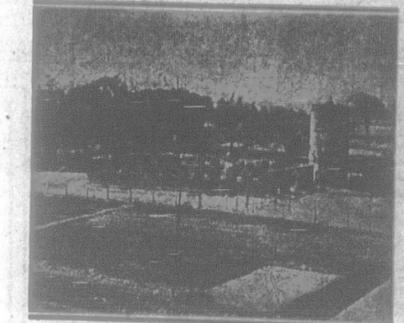
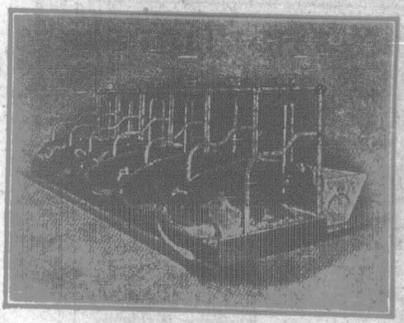
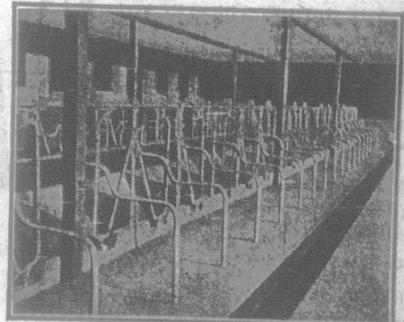


TELEGRAMS:
St. JEROME 14
8090 2

The Boys' Farm and Training School

J. E. DODDALL, PRESIDENT.
CHAS. G. J. PHILLIPS, VICE PRESIDENT.
G. W. G. MATTHEWS, SECRETARY.

SHAWVILLE, QUE.



Messrs Beatty Bros.
Fergus Ont.

Dear Sirs,

I am having prints made as you desire of the photographs of the Barn before and after the fire. I might add that the Barn has again been destroyed by fire and we are in precisely the same position as we were last year. The contractor with the permission of the Directors is going to use the same stanchions again - they have been through fire twice yet are as good now, except for a few replacements as when we put them in first. Will you please supply us with the Springs etc. all as ordered last year? I am adding to the pictures and showing the stanchions as they are now after their second fire.

Yours faithfully

RECEIVED
Sept. 17 1913
PAID

BT Steel Stalls, Stanchions, Pens, etc.

Just \$1 to cover the cost of a few Stanchion Springs made the BT Steel Stalls as good as new after the second fire.

And these same stalls, after passing through two fires, are being used again in the new barn.

BT Steel Stalls will make your stable practically indestructible. Nothing to burn, nothing to break, nothing to rot. No repair service as when first put in.

Then, BT Stalls are so easy to install. They come from our factory ready to set up. Two large bolts to tighten on each stall, and the job is ready for the cement.

You can put up 20 BT Steel Stalls in two hours yourself. The saving in time and trouble, or in carpenters' board and wages, goes a long way towards paying for the whole equipment.

BT Steel Stalls have many other special patented advantages you should know about.

For instance, there is an Aligning Device on each stall to line up every long and short cow evenly over the gutter, so no manure gets on the cattle-stand.

Write to-day for illustrated Stall Book that tells all the facts. It is FREE.

Send This Coupon

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681 Hill Street
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Mail coupon NOW.

Please send me your book "How to Build a Dairy Barn," and book illustrating Fireproof Cow Stalls. I have answered the questions below.

How many cows have you?

Are you building?

Or remodelling?

If so, when?

Need a Litter Carrier?

Name

P. O.

Prov

BEATTY BROS., LIMITED
681 Hill St., Fergus, Ont.

BARN PLAN SERVICE FREE

BEATTY BROS. have made a careful study of dairy barns for years, not only how they should be equipped, but how they should be constructed, lighted, ventilated, drained, how they should be designed and arranged so as to be most profitable to the owners.

We offer you the benefit of this special knowledge free of charge. Send us a rough pencil sketch of the floor plan of the barn you are going to build or remodel, indicating inside dimensions, number of stock, number

of box stalls. We'll make you blue print plans, giving exact measurements. Also, we'll send you free, our valuable book, "How to Build a Dairy Barn."

Write to-day.

Fill in the coupon.



QUALITY AND EFFICIENCY ARE MAIN ESSENTIALS IN A PIANO YOU GET THESE IN A BELL PIANO

We take the time and pains to build them right.

There are many good features in the BELL never found in other makes.

Information in our (free) catalogue No. 40. Send for it.

The **BELL PIANO & CO., LTD.**
GUELPH, ONTARIO.

Has Your Home an Indoors Closet?

SELF-RESPECT. your health, the health of your family, and the march of progress all call on you to replace the draughty, dangerous, and unsightly outhouse with an indoors closet. You can do it inexpensively and readily with a

"Tweed" SANITARY ODORLESS Closet

Can be placed in cellar or elsewhere in any home. Requires no plumbing or sewage; only connection with stove-pipe to chimney-hole for ventilation.

You can try a Tweed indoors closet for 30 days free. Ideal for summer cottages and schools, rural and village homes. Send for illustrated booklet.

STEEL TROUGH & MACHINE CO., Ltd.
5 James St. Ont. Tweed.



SWEET MILK WANTED

Shippers required to send milk daily in eight gallon cans to Toronto. Good prices. Write for particulars to:

S. PRICE & SONS LTD.,
Toronto

YOUR SAVINGS

When amounting to \$100 or upwards will be received by this Company for investment. Interest at 4 1/2% is paid half yearly. The safety of both principal and interest is absolutely guaranteed.

The Fidelity Trusts Co. of Ontario
Dominion Savings Building, London
T. H. Purdon, K. C., President. W. J. Harvey, Manager.

Two dollars for Automatically Adjusting Milking Stool, Canadian patent. Write F. K. CRUMB, Patentee, Manila, Philippine Islands, or procure from Schofield-Holden Machine Co., Toronto.

Please mention "The Farmer's Advocate."

DE LAVAL CREAM SEPARATORS

"DOG DAYS" THE BEST TIME TO BUY ONE

There was never before as good a time to buy a DE LAVAL Cream Separator as **right now.**

The "dog days" are at hand when dairying is most difficult without a separator and when the increase in quantity and improvement in quality of cream and butter are greatest through the use of a good separator, which with present high prices means even more now than ever before.



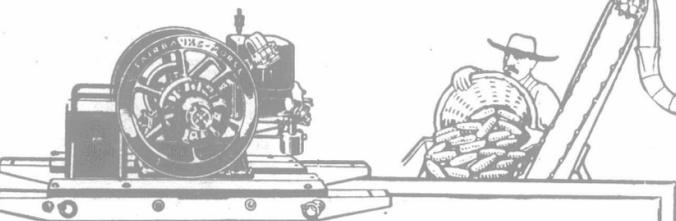
Then there is the great saving of time and labor, which counts for more in summer than at any other season and often alone saves the cost of the separator, aside from all its other advantages.

This is likewise the season when DE LAVAL superiority counts for most over other separators,—in closer skimming, larger capacity, easier running, easier handling, easier cleaning and absolute sanitation.

A DE LAVAL Cream Separator bought now will easily save its cost before the end of the year, and it may be bought for cash or on such liberal terms as to actually pay for itself.

Look up the nearest DE LAVAL agent **at once**, or drop us a line and we will have him **look you up.**

The De Laval Dairy Supply Co., Limited
MONTREAL PETERBORO WINNIPEG VANCOUVER



35 cents for repairs

"The 4 h.p. Jack of all Trades engine bought of you 3 years ago is still giving good satisfaction. So far I have had to pay only 35 cents for repairs."—A. Cameron Hay, Dufferin, Ont.

The initial cost of

Fairbanks-Morse Farm Engines

(Will run on cheap fuels)

may be a little greater than some engines you know of, but when the expense of upkeep is added to the purchase price—this constitutes the real cost—a Fairbanks-Morse Farm Engine is the most inexpensive you can buy.

Fairbanks-Morse Farm Engines are constructed for farm use. They are built to bear the brunt of many labors. Easy to operate, simply and durably made, reliable at all times. Any size from 1 to 200 h.p. Equipped with Bosch magnetos. Will run on gasoline, kerosene or low grade distillate, the cost of the last being less than one-fourth that of gasoline.

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

The Canadian Fairbanks-Morse Co. Limited
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Please send me your free book.

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Use them outside, in or near the garbage barrel, as well as in the house or store.

All Druggists, Grocers and General Storekeepers sell Wilson's Fly Pads.

CONTINUOUS and uninterrupted success for 45 years. Over ten thousand graduates from all Provinces of Canada, Newfoundland, the United States, Panama, Bermuda, Cuba, British West Indies, British Guiana, South America and England.

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J. W. JOHNSON, Principal
(for 35 years.)
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The Excelsior Life Insurance Co.
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Assets nearly \$3,500,000.00



Excelsior's liberal up-to-date policy contracts. The best for protection, for investment or to provide a fund to liquidate mortgages, etc.

Absolute Security, Liberal Profits
Company being foremost in all desirable features.

Desirable vacancies for agents to devote either entire or spare time to work. Apply to any branch office, or to:

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Very Little Satisfaction

comes to the man who looks back on lost opportunities. Do not belong to the large army of dependent ones when you are approaching old age. Make careful provision for your later years when young in life. There is no more sure and certain way than through Endowment Life Insurance. Full information and rates on application.

The FEDERAL LIFE ASSURANCE CO.
HAMILTON, Home Office: CANADA

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can be cured, not merely of the habit, but of its cause. The Arnott Institute has permanently restored natural speech to thousands—is doing it to-day. Write for full information and references to:

The Arnott Institute, Berlin, Ontario.

Milk Wanted

For milk route in Windsor.

WALTER N. KNIGHT
20 Aylmer Ave. Windsor, Ont.



VOL. XLVIII.

LONDON, ONTARIO, AUGUST 14, 1913.

No. 1090

EDITORIAL

It has been a real old-fashioned summer in many districts.

The ground may be hard, but don't neglect the after-harvest tillage.

Moving pictures are now to be one of the "home comforts" of Atlantic liners. What next?

The drier the weather the greater the importance of keeping the top soil stirred to retain moisture.

Plan a holiday or two and attend your nearest large exhibition, and at the same time do not forget the county fair.

A good many cows can put more water than is absolutely necessary in their milk themselves. No one need add any finishing touches to the job.

It is not good policy to depend upon dry weather alone to kill weeds, but it aids greatly when good cultivation is given. Right now an opportunity is afforded to get rid of a large number of these pests.

Reports come to hand almost every day telling of the ravages of apple scab this season. Packers will need to be doubly careful this fall, or Ontario apples will get another set-back. It never pays to wrongly label anything.

None are too old to learn. It is the man who watches closely, not only his own methods, but those of others as well, and profits by all the mistakes made that usually makes the great success. If your neighbor's crop was better than your own why not find out the reason? He will likely be glad to explain his cultivation.

Press reports often seem to indicate that our country is being overrun with weeds, and is being sadly neglected because of the scarcity of farm labor. True, labor is scarce, and not all farms are operated as they would be if men were more plentiful, but where are there to be found better crops, taking one year with another than right here in Ontario? While some farms, no doubt, would produce more if labor was more plentiful, the men who are farming to-day deserve a great deal of praise upon the excellence of the crop produced. There is, and always will be, room for improvement, and it behoves us all to do our best.

We recently heard of a man who refused to listen to any recognized agricultural authority, and would not read any agricultural papers, because he said that he already knew more than any college-trained agriculturist or writer for farm papers. It is a sad state of affairs when a man allows himself to believe that he has mastered all the difficulties of agricultural operations of all kinds. No man, no matter how extensive has been his practical experience, nor how many college parchments he holds, has yet mastered all the details of agriculture. Each day brings something new, and it is the man with open mind ready to receive new ideas and weigh them carefully who is most likely to make the greatest success of his calling.

Know Farming and the Farm Before Buying.

One of the most widely circulated United States weeklies, recently gave a little good advice to the city man who, with absolutely no practical experience, contemplates entering upon life as a farmer. It did not advise him to first enter an agricultural college and fill his mind with the theory of agricultural practice, neither did it recommend buying hastily a farm because it happened to have a fine outlook, or because the lawn was nicely seeded. But what was this good advice? Simply this: go out to the country; keep your eyes open; look around; select the farm which seems to suit you best; and then, if possible, hire with the owner of that farm for a season, and learn something about the back end of the place as well as of the front. If the farmer does not care to give more than board for such work as the urban man is able to do, he should stay with him just the same, and the journal in question, advised paying for board in preference to buying the farm without some knowledge of the occupation, and of the particular farm selected.

Advice has been broadcasted throughout the length and breadth of our land. Newspapers, public speakers, and even governments have been urging a "back-to-the-land" movement. Such a campaign must eventually be effectual in moving city people countryward, but the man not conversant with rural life, and not understanding land and its successful operation, is, unless he takes precautions, very likely to be soon sickened of his undertaking. Front lawns, nice drives, and beautiful outlooks may be satisfying to the eye, and, while they should (if at all possible) form an important part of every farm stading, they are not the most important consideration by a long way. What should concern the purchaser most is how the farm is adapted to produce greatest returns from the particular crop or crops which he chooses to grow, be they grain, live stock, fruit or special crops. The best way in which to be sure of this is to work on the place a season or two. Working as hired man may not seem profitable at the time, but it will generally prove its value in the end. In this way an intimate acquaintance with the characteristics of every field on the place may be had. The land with the cold, sour bottom in need of underdrainage cannot be hidden for a season; the hard clay knolls will show their nature; the weed pests of all seasons may be studied, and all the excellencies and shortcomings of the place are made known to the prospective purchaser.

It is not always and perhaps not often possible to hire to the man who wishes to sell, but it is, at least, possible to hire out or to obtain board on some farm, and here, perhaps, is the most valuable consideration in connection with the undertaking. It is a working knowledge of farm operations which is absolutely essential to success. Whether the prospective purchaser intends to work himself or to hire others to do it for him, it is necessary that he has a good idea of how things should be done, and the time necessary to do them. This practical knowledge cannot be obtained anywhere but right down on the farm actually engaged in the work. Agricultural colleges cannot teach practical farming to a man who never saw a farm. Neither can books and periodicals tell him how to hold a plow. True, they may help, but practical experience is the

foundation upon which all this superstructure must be built. Get the practical knowledge first, and then supplement it with all the college training deemed advisable. It would be just as foolish for the manager of a departmental store to quit his work and go and buy a farm for his employment without first knowing a few of the ins and outs of farming, as it would for a middle-aged farmer to sell his acres and, without preparation for the work, attempt to manage the departmental store. No matter what the business, it is necessary to learn it before attempting to manage it. It was good advice then when the paper previously referred to, told its readers to know farming and the farm before purchasing. Better spend a year or two learning the game, and be happy ever after, than jump into it in a day to be sorry until your dying day. There is room on the farms of the country for thousands more. Intensive agriculture is gaining ground, but no business is helped by failures or dissatisfied participants. Know what you want first; then tackle it with a vigor which must eventually reap a rich reward.

Water Supply and Milk Flow.

In the purchase or lease of a farm for dairy purposes, an abundant and continuous supply of good water for the herd is a first consideration. It is important for the healthy maintenance of the animal, more so probably than is commonly supposed, if inferences may be drawn from recent teachings regarding the desirability of the free use of drinking water by man. During the heat of summer plenty of water is required to supply what is so freely given off in perspiration. As a winter ration or supplementary summer feed, one of the chief benefits of silage is due to its succulence,—the moisture lacking in cured fodder or in the brown pasture grass. Even though knee-deep, which it is not likely to be, the latter does not keep up the milk supply. We remember how well the cows milked on the juicy June grasses, but they are gone now, and, in most cases, fresh corn fodder for soiling is hardly at its best. Plenty of water must be accessible. If it does not flow into the cows, the milk will not flow into the pail. Fortunately, the law does not allow us to add it from the pump afterwards. The dairy cow will put up with a shortage of food even better than a scant water supply, and still maintain for a time a fair milking. This is reasonable from the basic fact that milk itself is about 88 per cent of water, and only some 12 per cent solids. Just think of that—nearly 88 lbs. out of every 100 lbs. of milk, water to begin with! The cow cannot continue taking it out of her body unless it goes in at her mouth. If the well or the spring in the field is running dry, so will the cow. Let us make no error about that. Unless we have fresh flowing or lakelet water, better lose no time in hitching a windmill or other engine on the well, so that the cows may drink at will two or three times per day. And give it to her clean and pure. Do not ask the patient and often long-suffering cow either to make milk out of nothing, or to eliminate all the filth and germs found in bad water. She has enough to do without acting as a microbe killer.

To classify as "no good", something in the farm experience of this season may not gratify one's self-esteem, but in the long run it may be worth more to us than what we plume ourselves under the label of "success."

The Farmer's Advocate

HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WEEKLY BY
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Cultivate Now.

Another summer is fast drawing to a close, and again the fields are rapidly being stripped of their golden harvest. Harvest is a busy season, but all seasons on a well-regulated farm are busy seasons, and it is well that it is so, for work rightly done is generally done at a profit, so the busier we are the greater should be our success. No sooner is one crop harvested than it becomes necessary to prepare for another. A twelve-month is, after all, a very short time, and with practically half of it winter, as far as cultivation is concerned, it is necessary that no time be wasted during the season when cultivation is practicable. In the spring, as soon as the frost is out and the land is dry enough to work, we see teams rushing the work of plowing, cultivating, disking and harrowing. Why? To prepare a seed-bed that the grain may fall upon fertile soil and bring forth abundantly. But is the getting of the land in fine tilth the only object of this great rush? No. Experienced men who understand things will tell you that tilling the soil, putting a layer of fine earth on top, conserves moisture for the use of the crop later on. Quite true. If tillage is good in the spring, why is it not beneficial after the crop is off? It is almost as necessary to conserve moisture now as just before the crop is sown, as it is such a short time until another crop must be put in. How often we hear it said that the land is too hard to plow. Much of this may be avoided by as soon as the crop is off, skimming the fields not seeded down with a gang plow, or going over them two or three times with the disks or cultivator. After this give a couple of strokes with a good sharp harrow, to leave the land fine on top. It is seldom land thus treated gets so hard the plow will not take hold of it later on when it is necessary to give the deeper cultivation. A large amount of moisture is thus prevented from evaporating.

After harvest, cultivation does another great work for the man who practices it. Weed seeds

of almost all kinds germinate and grow rapidly in the late summer and fall, in an effort to produce seed again before the winter. These young shoots are very tender, and the later cultivation puts an end to their existence. This is one of the most effective means of fighting weeds, while growing crops, there is. The extra cultivation is worth while, if it did nothing else but put the soil in better tilth. Do not wait until next week. Cultivate each field as soon as the crop is removed. The gang plow does the best work, but the cultivator or disk helps the soil greatly.

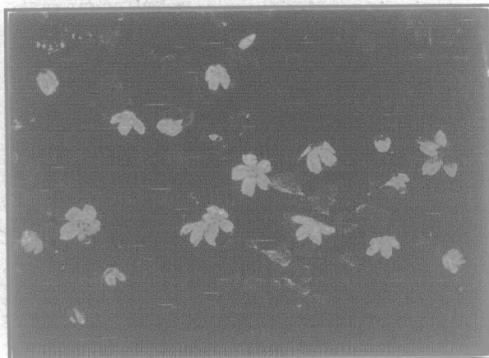
Nature's Diary.

By A. B. Klugh, M. A.

There are a couple of very beautiful, delicate little plants which blossom in our deep woods towards midsummer. They are known as the Twin Flower and the Wood Sorrel.

The Twin Flower is so called because each flower stalk forks at the top into two, and each of these pedicels bears a flower. The corolla is whitish, tinged and striped with rose-purple, and is funnel-shaped. The leaves are rounded-oval and are evergreen.

The scientific name of the Twin Flower is *Linnaea borealis*, being named in honor of Linnaeus, the great Swedish naturalist, who first classified thousands of plants and animals, and who brought into current use our present system of scientific nomenclature. This flower was a special favorite of the eminent botanist.



Wood Sorrel.

The Wood Sorrel has a white corolla which is striped with fine purple lines. It has five petals and five long and five short stamens, which latter alternate with one another. The leaves have three leaflets like the clover.

On the surface of the water of our ponds and streams two interesting insects may be observed, the Water Boatmen and the Back Swimmers. They are both true Bugs, that is, they belong to the order of insects called the Hemiptera. All insects are frequently termed "bugs," but this name should really be applied only to insects of the above-mentioned order.

The Water Boatmen are mottled in color and oval in shape. While they usually are to be seen at the surface of the water, they can descend below the surface and remain there for a long time



Twin Flower.

as they carry down with them a film of air held by the fine hairs which cover the body. The eggs are laid under water and are attached to the stems of aquatic plants.

The Water Boatmen have strong, sharp beaks, and feed upon other aquatic animals. They pass the winter in the mud at the bottom of the streams and ponds.

The Back Swimmers derive their name from their habit of swimming on their backs. The hindmost pair of legs are long and stand out at the side like a pair of oars. They lay their

eggs in the stems of water plants, the female piercing the stem with her sharp ovipositor, and placing about two-thirds of the egg in the incision.

A very brilliant little bird is the Indigo Bunting, he is an iridescent blue nearly all over, a blue which flashes to green and purple as the light strikes at various angles. The female is a very dull-colored mate for such a bright husband, being of a snuff brown.

The Indigo is a rather rare summer resident in the Maritime Provinces and Quebec, a fairly common breeder in Ontario, and is only occasionally recorded from Manitoba.

It is a bird of the clearings and raspberry patches, and makes its nest of grass, leaves, and plant-stems, in a low bush, or in a bunch of raspberry canes. It has a bright, tinkling song.

The Indigo is one of the latest birds to arrive in the spring, and one of the first to leave in the fall.

Another brilliant bird, which always arouses interest when seen, is the Scarlet Tanager. The male of this species is bright scarlet, with black wings and tail, and is sometimes called "Red Bird," "Soldier Bird," or "War Bird," and its gay coloration is often fatal, as it is frequently shot, sometimes to be mounted, but more often looked at and thrown away. The female is greenish-yellow, with blackish wings and tail.

The Scarlet Tanager arrives about May 12th and leaves about September 15th. Like the Indigo Bunting its centre of abundance in Canada is in Ontario, though it is not uncommon in Manitoba.

It has a strong, warbling song, and a call-note which sounds like "Tic-whirr—Tic-whirr."

On the trunks of Oak trees one occasionally finds a huge yellow fungus, consisting of a mass of small caps joined together. It is the Sulphur Polyporus. The name Polyporus is derived from two Greek words, and means "many holes," referring to the fact that the under-side of the cap is made up of a layer of small tubes in which the spores are borne.

In the young stages this fungus is quite soft, and is edible, but later it becomes hard and dry.

All large fungi consist of two parts, the threads, termed the Mycelium which branch through the wood or ground, and the Sporophore which is the part which bears the spores. It is this latter part which we see. The Mycelium frequently lives for years before it produces the fruiting-body, and it is this part which causes the decay of the wood.

THE HORSE.

As pastures become drier, the need for feeding the sucking colt increases.

While horses in Ontario increased 90,447 in the ten years, 1901 to 1911, their average value also increased \$62.47 per head, according to the census report.

Much as horses like the new hay, we are told that it is not as good for them as old hay. Liveries and dray firms always buy old hay for their horses, and find that it is better for them than newly-mown hay.

Many importers of draft horses are landing new importations at this season. It is a good time to look these over, and select the horse to meet your desires before all the choicest have been disposed of. Real good horses are never very plentiful.

Be careful in commencing the horses, which have been at grass the greater part of the summer, at the fall work. They are soft, and might easily be overdone. This is particularly true of mares suckling foals. Care must also be exercised that the colt does not get over-heated milk. Nothing is surer to bring on digestive troubles, and give his growth a serious set-back.

Whether dry or wet seasons have any effect upon the conception of mares or not, we are not prepared to say, but the Live Stock Journal, commenting upon the show season in England, has this to say: "The shortage of yearlings, and the full number of foals being shown this season, leads one to ask whether a hot, dry season affects the conception of mares. Two years ago the weather, for the summer months, was hot and dry, and these appears to have been a shortage of foals last year. On the other hand the breeding season of 1912 was cool and wet, which probably favored foal production, hence the increased number of show foals to be seen. It is also a fact that most breeders have had a good deal of trouble with their brood mares this season, so it seems the climatic conditions affect the foal crop, at least, to some extent."

Take Care of the Harness.

If there is one necessary part of the farm equipment which receives less care in proportion to its everyday use than another, it is the harness. On a very large percentage of our farms, harness is bought and never cleaned again. Subjected as it is to all kinds of weather and to all classes of filth, it soon becomes tarnished and the leather dries and cracks. The life of harness may be doubled by good care, and the comfort of the horse increased. Harper, in his book on the training and breaking of horses, says: "Harness should be properly cared for, as this will increase the length of its usefulness and lessen the liability of it injuring the horse. It is very important that the bearing parts be kept scrupulously clean at all times. This applies especially to the parts in constant contact with the animal, as the collar, saddle crupper, and the like. It is not possible to prevent sore shoulders, sore neck, and sore tail, if these parts are permitted to become dirty, which they will (because of the sweat and dandruff) unless they are carefully watched and frequently cleaned. These parts should be thoroughly cleaned each morning before harnessing, or, better still, immediately after removing the harness.

"The entire harness should be thoroughly cleaned and oiled, at least, once a year. The simplest way of doing this is to take the harness apart, and soak the parts for fifteen minutes in a wash-tub of luke-warm water containing a handful of washing soda; then scrub the parts with a scrub brush, and, when dry, oil with neat's-foot oil, to which a small amount of kerosene and a little lampblack have been added; next, hang up to dry, taking care not to dry in the sun or by fire, and finally sponge with castile soap and buckle the parts together. Yet there can be no denying the fact that water injures the harness, particularly the polished and fancy parts. In the case of fancy harness, the mud and dirt should be permitted to dry. Then it should be removed with a brush stiff enough to answer the purpose, but not so coarse as to injure the grain of the leather. It is important that the straps be rubbed with the grain, which lays down the fiber and gives a smooth edge. Next, the harness should be taken apart and cleaned with a sponge dampened with soapsuds, using only as much water as is necessary. When cleansed, wipe dry and oil with a little neat's-foot oil applied with the sponge, then apply some good harness blacking and polish. Harness treated in this way will neither turn red nor become grimy, and, if often sponged with white castile soap, can be kept looking like new.

"When not in use, the harness should be covered with a sheet and hung in a room constructed especially for it, as dust, dampness, and vermin tend to injure the leather, and tarnish the fixtures. It frequently happens that the harness is hung on hooks just back of the horse in the stable. This is very objectionable. In the first place, gases escaping from the manure are very destructive to the leather, and, in the second place, the harness is often knocked down under the horse's feet, and becomes soiled with the manure. It is much more desirable to have a harness-room convenient to the horse stable where all harness can be kept, as it is much less difficult to keep in order, and, if we have a hanger for each horse's harness and hang it there each time, the work will be much lighter than otherwise.

"It is often very convenient and sometimes economical to be provided with a repair kit to mend harness whenever needed, as it often saves delay in sending to the shop. To make simple repairs is not difficult, and the repair kit is inexpensive. We should provide a wood clamp for holding the leather to stitch; round knife; gauge knife; square-point trimming-knife; four-tube punch; three different-sized awls; collar awl; rivet set; box of assorted rivets, and a pair of pliers; all of which can be obtained for approximately five dollars. With such a kit of tools on hand, one can keep his harness in the best of repair at a very small cost."

Clean the Watering Troughs.

If there is one animal on the farm which is deserving of fresh, cool water, it is the horse. Hard-worked as he generally is, the hot weather is doubly trying on him. How often does his driver take a refreshing drink? And the driver always insists upon clean water. So often at this season of the year the watering troughs become filthy and slimy from a growth of the lower forms of plants. This is due to the fact that stagnant water is allowed to remain in them day after day and week after week, without being cleaned out. The horse does not relish a drink from such a trough, and water from it is not so good for him as water from a clean trough. Let all the water out of the trough from time to time, and take an old broom and give it a thorough rinsing out. Then pump it full, and see how the thirsty horses will shove their noses down into it and drink their fill, going away refreshed and satisfied.

On Breeding Two-year-olds.

The much-debated question as to whether or not it is profitable to breed two-year-old fillies, is never likely to be settled one way or the other. We recently heard a very strong argument on this point, and our attention was called to a big, growthy, fine type of Clydesdale mare which had raised a colt in her three-year-old form, and is suckling another now at four years of age, and, as far as may be told at this time, is again with foal. Her size is all that could be desired, and she does not seem to have been injured in any way by early breeding. She now gets in foal almost as surely as she is bred. But this mare was an exceptionally well-grown colt. She was as much matured at two years as many are at three, and she never works while the colt is suckling, but is used in the team after the colt is weaned and up to foaling again. With good care there seems to be little danger from breeding a two-year-old if she is well-developed. But there was a point made in the argument, that if the two-year-old failed to conceive throughout the season there would be considerable trouble experienced in getting her to breed in after years. This seems to be, to some extent, true, but whether or not a three-year-old would not act the same, we are not prepared to state. Experience has proven, however, that it is a little more difficult to get a two-year-old in foal than it is a three-year-old or four-year-old mare. However, a stable mate of the afore-mentioned mare was bred all season in her three-year-old form, the same season as the other mare began breeding as a two-year-old, and she did not conceive. The following year she took the horse several times, and finally after the season was over got with foal and promises to become a regular breeder. It was more difficult to get her started, whether or not any of this could be laid to her missing the first season. There will always be a difference of opinion on the advis-

LIVE STOCK.

The pastures are now quite dried up. - If possible give the stock the run of a field or two which is showing a nice second growth after hay has been removed.

It is surprising how cattle crave for salt. If their salt troughs are empty only two or three days, and they scent a new supply coming, how they will rush for it. It is a good practice to keep salt before them at all times.

Where the pastures are very short a little corn thrown to the cattle will serve to tide them over until the fall rains come and the aftergrass gets started. Don't let the cattle fail too much in flesh. Keep them up in condition, if possible, for if they go down it will take all the fresh fall growth, and perhaps more to bring them back to their former fitness, and to have them winter easily it is necessary that they are in good condition when stabling is commenced.

Now that many of the fields are cleared, it is very often profitable to turn the shotes out to pick up the grain which has been lost in harvesting. Young pigs grow well on stubble, especially if a little feed is also supplied them from the trough. Do not feed too much or the pigs will get too lazy to hunt up the heads which have been cut off by the binder. But it is generally well to give some feed besides what is picked up for it is never good practice to allow a pig to stop growing.

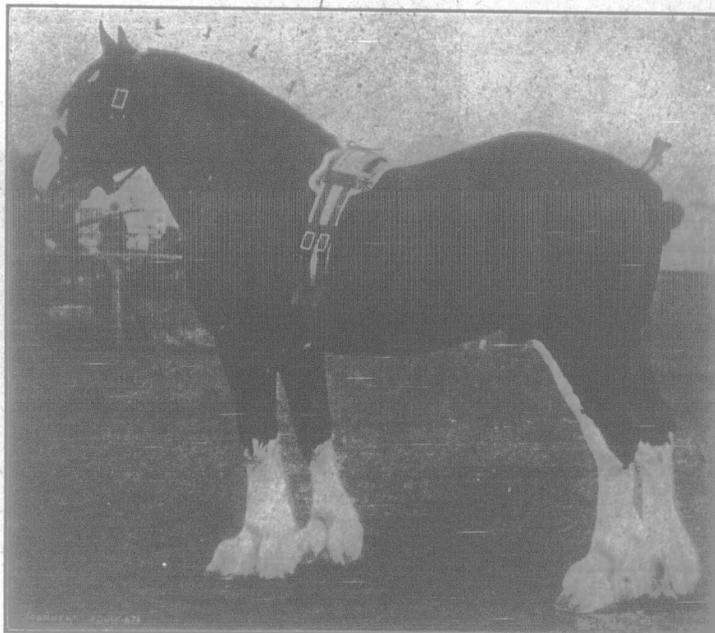
Rape for Sheep and Other Stock.

Editor "The Farmer's Advocate.":

Rape is a most valuable feed for sheep. It is greatly relished, and produces rapid gains, both in growing and fattening stock. Rape is an easy crop to grow, and yields abundantly when properly handled. The variety of rape most suitable to grow for fodder is the Dwarf Essex. This yields very heavily of leaves.

Early sowing is not essential for rape. It is well to get the land ready for sowing as soon as the ground is warmed up in the spring. It may be sown any time before the last of July, and after the ground is well warmed. When rape is sown in rows, cultivation should commence as soon as the fine of plants can be distinctly seen from one end of the row to the other. The cultivator should be run at first as near as possible to the plants without burying them. Shallow but thorough cultivation should follow

at frequent intervals. The crop may be pastured off at various stages of its development, according to the object sought. When eaten down before it has made a maximum growth, it will grow up again with more or less vigor. But the pasturing should not commence in any event until the rape has become well established in the soil, that is to say, until it has made a growth of several inches. It is a question as to whether more food is obtained by this method than by allowing the rape to attain its full growth before pasturing off. Authorities on the subject are inclined to believe that the latter method is the most profitable to follow, especially when sheep pasture on it, as it is quite possible for sheep to eat it down so low as to injure its capacity for further growth. It may be pastured off with cattle, sheep, swine or fowls. Cattle waste more by trampling than do the other classes mentioned. Milk cows should not usually be allowed to pasture on the rape as it has a tendency to taint the milk, but it may be cut and fed to them after each period of milking. On the whole sheep will do better on rape than will either cattle or swine. Neither cattle nor sheep should be turned on rape when very hungry or when it is wet with dew or rain, as they are liable to overeat and bloat, which, in a short time, if not looked after, will cause death. In moist climates such as that of New England or



Baronet of Ballindalloch.

Clydesdale stallion, 1st at the Highland Show, Paisley.

ability of breeding two-year-olds, because there will always be two-year-olds which would not be injured by being bred, and there will, at the same time, always be those too under-developed to throw good colts and not have their growth impaired.

Handle the Colt.

It will soon be time to wean the colts, and before this comes around it is always advisable to have the colt accustomed to being handled. If his mother is quiet, it is more than likely that it will not be a very difficult matter to get up to him in the pasture field and scratch him a little. All colts like to be scratched or rubbed. Begin cautiously, and each day handle him a little more than upon the previous day. Soon he will become accustomed to these daily visits, which need not take much time—a few minutes is all that is necessary. Most colts will turn their rumps to you at first. Be careful not to get kicked, for the kick of a foal is often dangerous. Begin by gently rubbing the parts he will let you touch. Gradually work towards his head, until finally he will let you handle him anywhere. Pick up his feet and tap them occasionally. Handling quiets the colt, and he gets better acquainted with his master, which is a great help during the trying weaning process.

the Maritime Provinces there is greater danger from bloating than there is in the arid or semi-arid districts of the West. Cattle and sheep become accustomed to rape by turning them into a field after they have eaten freely of some other food, and then leaving them in the rape pasture. The danger will be still farther decreased by allowing them to remain only a short time on the rape the first day, and gradually increasing the time on each succeeding day. At the end of the week they may be allowed to remain on the rape, having access at the same time to an adjoining grass pasture. Animals that have not been accustomed to rape pasture may not take to it at first, but they soon learn to like it, and once they acquire a taste for it they will thrive on it and never tire of it.

If live stock are pasturing on rape, it is generally considered beneficial to the animals to give them access to a grass pasture. And especially is this true if the grass has lost part of its succulency through age, as it then has a tendency to lessen a too lax condition of the bowels. The grass and rape will keep the sheep in first class condition.

Oats fed once a day to the sheep at the rate of one-half pound per head each day will have the same effect, but it is not considered necessary to feed grain to most of the stock pasturing on rape with the object of putting on fat, for a good stamp of rape usually proves sufficient to fatten them. Stock should have free access to salt when pasturing on rape, and should always be supplied with fresh water. But when sheep are feeding upon it they will be found to consume very little water. Sheep turned into a rape pasture that is neither very tall nor very dense will first consume the leaves, because of their succulence. They will finally eat all the stems down to the ground. But if the rape be tall and thick they will eat it up clean as they go. The stems are considered even better than the leaves. When the leaves, in a thin stand, have been eaten off by sheep, cattle may then be turned onto the field, and they will clean up all the remaining stems. By this method there will be much less loss from trampling than if they had been introduced at an earlier period.

On soils in which the hoofs of the sheep do not sink below the surface, this class of stock may be pastured on rape until the closing in of winter, and in warm latitudes they may be pastured on rape all through the winter. In climates with cold winters, such as we have here in eastern Canada, it should be pastured off before the arrival of severe frosts, as after rape has been frozen, until the stems become crisp enough to break easily, its value as pasture is much impaired. When the early frosts have covered the rape, sheep should be given a feed of oats or other suitable grain before being turned on it. In the absence of such food sheep must not be allowed on it until after the frost has lifted, otherwise serious digestive troubles may arise.

When sheep eat so excessively of rape or other food as to induce bloating, relief must be immediately given or the animals will almost certainly die suddenly. Therefore, a trocar should always be at hand. The moment that a case of bloat is detected, the animal should be tapped to allow the gas to escape. This is done by sticking the trocar into the paunch on the left side and somewhat low in the triangular fleshy space between the last rib and the hip. Medicine is seldom of any avail.

The usual method of sowing rape is in drills, and cultivate as for other roots till the leaves grow too large to allow of passing between the rows. Some advocate and practice sowing rape with corn at the time of last cultivation; others sow it with oats when the plants are about two inches high. It is well to learn whether one's conditions of soil and climate will allow of such methods before undertaking them on a large scale. Sowing in rows from two to two and one-half feet apart and cultivating as for turnips or mangels, is the method to use for large production of seed. Rape being a very gross feeder requires a soil rich in plant food. Soil suitable for corn will be found to be good for rape. A man having lambs to fatten can grow no better crop than rape, nor one from which the quality of the flesh will be better.

Cape Breton, N. S. JOHN H. MacDONALD.

How Hog Cholera Serum is Prepared.

It may be of interest to a number of our readers to know how hog cholera serum is prepared. The following is taken from Extension Bulletin, No. 37, of the Minnesota Station:

Hogs are selected that are immune against cholera. They may become immune (1) by having recovered from an attack of cholera; or (2) by having been given the double or serum-virus treatment. Hogs weighing between two and three hundred pounds are desirable. The next step is to render these hogs hyperimmune; that is, to intensify their immunity, or render them very highly immune. This is done by introducing large

quantities of virus, in proportion to the weight of the hogs, into their bodies in different ways, either into the abdominal cavity, or into the heavy muscular tissues, or into the tissue just beneath the skin, or into one of the bloodvessels, such as the vein in the ear. The virus is either injected all at one time, or in divided doses at weekly intervals. Ten days after the last injection the hog's blood contains a very large amount of the protective substances desired. A hog that is simply immune has only enough of the protective substances in its blood for its own protection, but a hog that is hyperimmune has these protective substances in its blood in such large amounts that a small part of the blood of such a hog when injected into another will have the power of rendering that hog immune.

At this point the hyperimmune dan aheo be bled for serum. This is done by cutting off a small piece of the tail and collecting the blood in a sterilized vessel. The clot is removed, the serum measured, and a small amount of preservative added. It is then stored in sealed bottles in a cool, dark place until it can be tested. It takes three weeks to test the serum, and if the test shows that the serum is not up to standard strength, it is not used.

From two to three pints of blood are removed each time the hog is bled. He may be bled two, three, or four times, and then re-hyperimmunized; that is, the former process must be repeated, because the bleeding has resulted in decreasing the amount of protective substances in the blood. The total number of bleedings is usually determined by the length of the tail. When the tail

crops for the Glencoe fall fair. As I had heard of this form of agricultural encouragement I proceeded to interview Mr. Scarf, and, though I have no doubt that most of the readers of "The Farmer's Advocate" are familiar with this work, I am going to tell what I learned for the benefit of the few backward people like myself who never find out about things like this until long after everybody else knows all about them.

The purpose of the association in establishing field-crop contests, is to encourage the production of larger crops. They also encourage the growing of clean crops that shall be as free as possible from weeds, and uniform in variety and quality. They likewise help to determine the varieties of various kinds of grain and plants that are best adapted to each particular part of the province. To aid them in their work, the Government gives a grant of fifty dollars to every society that enters the competition. In return for this, every society entering must put up twenty-five dollars, making in all seventy-five dollars to be divided into seven prizes, ranging from four dollars to twenty dollars. Last year about three thousand farmers took part, and over thirty thousand acres of standing crops were examined and judged. The winners of the first five prizes are allowed to compete at Toronto and at the Guelph Winter Fair with both sheaves and grain, for sweepstakes prizes. Altogether, the plan of the association appears to be very comprehensive, and designed to give the largest amount of encouragement possible to practical farming.



Montrave Ebling.

First prize and reserve champion bull at the Royal.

gets so short that the hog can no longer be bled, it is killed, and the blood collected. On the average, one three-hundred pound hog will yield about fifteen thousand cubic centimeters of serum (three and three-quarters gallons) which is sufficient to treat five hundred hogs weighing one hundred pounds each.

THE FARM.

Field Contests.

By Peter McArthur.

While in the village a few evenings ago, I noticed a group of farmers listening attentively to a stranger who was explaining something to them. I have heard it said that "curiosity killed a cat," and, if that is true, it is a good thing for me that I am not a cat, for I had to find out what was going on. By joining the group I had a chance to hear the stranger explain how to prepare a sheaf of oats so that it will have that fine upstanding look that we see in the sheaves at the fall fair, and nowhere else—except, perhaps, in the pictures used to advertise self-binders. I had often wondered how on earth they managed to get sheaves in which every head stands up straight without showing a sign of crinkling. It seems that if you are going to get up a show sheaf, the way to go about it is to cut the grain before it is dead ripe, select the most perfect straws and heads, and then hang them head down from the ceiling of the kitchen. In this way the straw becomes cured with the head perfectly straight, and then you can make up one of those fancy sheaves. This was all so interesting that I wanted to find out a lot more, and, in due time, I was introduced to the stranger, who turned out to be Mr. Scarf, of Durham, second vice-president of the Ontario Association of Fairs and Exhibitions. He was in the neighborhood judging the standing field

the storm. This head he cared for and kept apart, and from it produced the stiff-strawed wheat which, in a few years, was the most extensively grown wheat in the province. Unless one stops to figure a little, it is hard to realize that one remarkable head should affect the whole wheat production of a province, but if you take a pencil and piece of paper and figure on wheat that yields forty or fifty-fold, you will find that if this rate of production is kept up for a few years and every seed produced is re-sown, it would take a very short time for the products of one head to fill all the granaries of the world. As an example of what can be done in this way, he told me about Mr. Elder, of Hensall, in the county of Huron. In 1906 Mr. Elder applied for a pound of O. A. C. No. 21 barley for experiment. He sowed it, and threshed thirty-one pounds. In the following year this yielded twenty-five bushels and five pounds. When sown on eighteen and a quarter acres of land, this, in turn, produced nine hundred bushels of barley. Thus we see that in three years one pound was increased to nine hundred bushels. If he had kept on sowing for another three years, you couldn't figure out on the side of a barn how many bushels he would have had.

The work of the association is really supplementary to that of the Farmer's Institutes. The Institute lectures teach the proper preparation of the soil, eradication of weeds, drainage, fertilization, selection of seed, and all the other things that go to the production of a valuable crop. In this connection I was interested to learn what apparently trifling causes can seriously affect the value of a crop. In the case of oats, some grains are thirty-eight per cent hulls, that is pure chaff. This is equivalent to having thirty-eight bushels of chaff in each hundred bushels of grain. The thin-hulled varieties have only about twenty-four per cent of hulls, which makes four-

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teen bushels less in the hundred. This must make a distinct difference in the feeding quality, and, of course, an average yield of thin-hulled oats is worth as much or more than a heavy yield of the thick-hulled variety. I admit that I feel rather absurd talking in this profound way about matters that I know so little about from experience, but there is one point about farming that I never lose sight of, and that is how to get the largest amount of result with the least amount of work, and this information that Mr. Scarf was giving me seemed right along the line of my hobby. He further encouraged me by telling of a boy who got first place in South Carolina for raising corn. He produced two hundred and twenty-eight bushels from one acre, which was more than his father produced on twelve acres. Now, it hardly seemed possible that that boy could have put in twelve times as much work on his acre. I must investigate this point further.

On thinking over what I learned from Mr. Scarf about the objects of these field-crop contests, I couldn't help wondering if there is not an unrecognized difficulty that prevents the highest achievement. For generations past the ambition of almost every farmer has been to get as much land as possible under cultivation. This, no doubt, is a result of the experience of the pioneers who found that it was only necessary to tickle the land, and it would laugh with harvest. The fertility of the newly-cleared land has largely disappeared, and it would be a good thing if the ambition to get every possible acre of land under cultivation disappeared with it. To make this change, however, it would perhaps be well to change the method of giving awards. In the field crops I understand that entries are not allowed for less than five acres. This seems to me to be a concession to the wrong methods of farming. It seems to be admitted that the farmer must put in a big field, and instead of putting it in as well as possible, he probably puts it in less badly than he used to. Would it not be better to offer a prize for the best acre, or even half acre, of any variety of grain? The contestant would then work it as carefully as the South Carolina boy worked his acre of corn. Another year, if a man had taken a prize for an acre, he could show what he could do by applying exactly the same methods to five or ten acres. In this way he would be progressing from good farming on a small scale to good farming on a large scale, instead of trying to make the practically impossible jump of changing from bad farming on a large scale to good farming on a large scale. All progress seems to be by growth, and I am inclined to think that there would be a greater growth of good farming if prizes were given for the smallest possible good beginnings.

The chief lessons to be learned from Mr. Scarf's conversation and accounts of his experiences, were undoubtedly those taught by the one stiff head of Clawson wheat, and the one pound of barley that in three years produced nine hundred bushels. They showed progress in the right direction. The other method seems to me to be much as if we should try to produce one good head of wheat from ten acres, or one pound of barley by working back from the nine hundred bushels. Besides I like the idea of making small beginnings. They involve less work, and, if they turn out well, all the work done is likely to yield results.

The Meadow Lark a Useful Bird.

A United States bulletin says of the meadow lark: "In many localities the meadow lark is classed and shot as a game bird. From the farmer's standpoint this is a mistake, since its value as an insect eater is far greater than as an object of pursuit by the sportsman. Both the boll weevil, the foe of the cotton grower, and the alfalfa weevil are among the beetles it habitually eats. Twenty-five per cent. of the diet of this bird is beetles, half of which are predaceous ground beetles, accounted useful insects, and one-fifth are destructive weevils. Caterpillars form 11 per cent. of the food, and are eaten in every month of the year. Among these are many cut worms and the well-known army worm. Grasshoppers are favorite food, and are eaten in every month and almost every day. The vegetable food (24 per cent. of the whole) consists of grain and weed seeds."

Two species of meadow lark are common, eastern and western, but their habits are very similar. Recent studies reported by H. C. Bryant of the California Experiment Station, show that while the western species may do considerable damage in destroying sprouting grain, it also consumes large quantities of destructive insects, and when the benefits are balanced against the injuries there remains no doubt that it deserves protection and encouragement. Its value as a destroyer of injurious insects far exceeds its detriment as a destroyer of sprouting grain. The value of a

western meadow lark living, to one dead, is as five pounds of insects (mostly injurious) and half-pound of weed seeds is to one and three-quarters pounds of grain, a considerable part of which is made up of wild oats and waste grain. Another important point in favor of the birds is that they turn their attention to the insect most abundant, thereby increasing their efficiency at the time of an insect outbreak. They bear an important relation to grasshopper outbreaks, and to other insect outbreaks as well.

A strong point favoring the protection of the western meadow lark is to be found in the fact that the only real damage caused (that to sprouting grain fields) can be largely prevented by planting grain deeply and drilling instead of broadcasting, two measures highly advocated by all agricultural experiment stations as favoring larger crops.

A Weed for Identification.

Identify the enclosed weed. How can it be killed?
Middlesex Co., Ont.

C. H. SCOTT.

The weed is the perennial sow thistle, one of the worst pests we have to fight. In some sections of Ontario it has been very bad for



Tamworth Boar.

Champion of the Royal Show, Bristol, Eng.

several years, but by a process of clean cultivation it has been kept in check. In some sections east of Toronto considerable of it is in evidence this year. If allowed to spread it will soon gain such a foothold as to crowd out all other plants, and fields of grain are sometimes seen so badly infested that one could scarcely tell what the crop is. It is very persistent and grows best in rather wet seasons and in damp rich soil. It spreads from seed and root stocks, and thus requires thorough cultivation to rid the land of it. As it is now just in bloom in many sections, a description of the plant is not out of place, even though it has been many times written about through these columns.

There are several sow thistles, viz., common annual, spring annual, and the perennial. The former are, compared with the perennial species quite harmless where anything like good cultivation is carried on. One of the surest methods for the average person to identify the perennial variety is by flowers, which are bright yellow, one-and-a-half inches across, and which come out full size during the early morning and close in very strong sunlight. The stalk on which the flower is borne is covered with bristles and long glandular hairs. The stems grow from one to five feet in height, the one which our correspondent sent in being four feet from root to flower. The stems are hollow, and the leaves are long

(about six to twelve inches) some of them on the stock sent in being good twelve inches. They are deeply lobed and the edges are marked with soft spines.

The flower of the common annual as distinguished from that of the perennial is a very pale yellow and the flowers are much smaller, being only about one-half to one inch in diameter. The scaly bracts surrounding the flower are not bristly as in the perennial. The spring annual may be identified by its very prickly nature and less deeply-lobed leaves.

The seed of the perennial variety is described by "Farm Weeds" as about 1/16 in. long, dark reddish-brown, oblong, closely and deeply ridged lengthwise, the ribs wrinkled transversely, giving the seed the appearance of being ridged both ways, bearing at the top a tuft of white, silky, persistent hairs which spread in drying and enable the seed to be carried long distances by the wind.

To absolutely eradicate it, once a field is badly infested, is a task. Fields were noticed this season which were under hoed crop last summer, and were thoroughly cultivated several times, and well hoed twice, and still quite a sprinkling of the weed is in evidence. Some farmers say that hoeing seems to strengthen the growth of the

weed. One thing is certain the plants which escape death in a good hoed field make remarkable growth the following season, but the writer remembers well a four-acre field of very rich low ground, which, was very badly infested, and which was practically cleaned in one year by the thorough cultivation given a crop of turnips; only a few stocks remained, and never since has this particular field had a great deal of the weed, although this year a few patches are noticeable. It always pays to wage war unto the death when dealing with this pernicious pest. If a few stocks remain after a hoed crop or summer fallow, grub them out of the next crop, root and branch. It is a difficult matter to get them all, and if the weed has ever been well established a continuous fight is required or its foothold will soon be very strong. Owing to the fact that the seeds are attached to a fluffy down a few mature heads often seed acres. Thus it is necessary that whole neighborhoods fight the weed. It is little use for the man to clean his farm only to see it reseeded with weeds from that of his shiftless or careless neighbor.

The weed is usually first noticed in small patches, and where this is the case no time should be lost in grubbing out all the roots and thoroughly destroying each and every plant. Pieces of rootstocks distributed from place to place in a field take root and grow, so care must be exercised that none of these cling to farm implements, and thus spread the pest to new fields, or to clean portions of the field in which the patches are found. If the weed is established in the field it is wise to summer fallow, giving careful and frequent cultivation, using the broad-shared cultivator to keep all roots cut, and allow no growth to appear above ground. Early this fall after the grain or hay crop has been removed from the field plow lightly and use the cultivator frequently. Plow again late in the fall, going down quite deep. This will expose the roots and



Lincoln Shearling Rams.

Champion pen of five at the Royal.

some will be killed. Summer fallow as cultivated until late in June or early July next year and then ridge up and sow to rape in drills at about one and a half pounds per acre. Keep the rape well cultivated until it gets too large. It may also be necessary to go through with a hoe and cut out what weeds the cultivator misses. Pasture the rape off closely in the fall and fall plow quite deep again. If it is found necessary, a hoed crop as turnips, mangels, or corn may be put on the field the following year. This should pretty well exterminate the weed.

A bare summer fallow is sometimes used to good advantage, but very often press of other work during harvest does not allow of its being worked as frequently as it should be, and thus the weed gets a new foothold. Sowing rape is advantageous in this respect and produces something from the land while cleaning it.

Buckwheat sown thickly broadcast, about the first week in July makes quite an effective smothering crop, but scarcely as good as rape in drills.

And here let it again be said that a short rotation of crops tends to keep the weed from spreading. A clean hoed crop and a good stand of clover are two standard crops for the farm, and the weeds gain no headway in either, if properly handled. Neither does it spread very rapidly in a hay-field the second year, the cutting preventing seeding, and the usual after-pasturing keeping the plant from making much progress. A three or four-year rotation aids greatly in keeping down most of the farm pests. Just at this time when the fields are being cleared, and when considerable of this weed is in evidence is a good time to commence the fight. Determined effort is generally rewarded, but half-way measures always fail. Go after it as you would a poisonous reptile. Strike true and hard and cease not until the last flower stem is parched in the sun, and the last rootstock has been smothered into oblivion. Wage a no-quarter war on this great robber.

Preserving Fence Posts.

The Minnesota Experiment Station has carried on a large number of experiments with preservatives for various kinds of fence posts. Conclusions drawn from the work state that the treated post is most economical in many sections. Experiment and experience have shown that creosote costing ten cents, or less per post will penetrate peeled, seasoned jack pine, poplar, cottonwood, willow, red oak, or ash posts from a quarter to a half inch deep.

Maple, basswood, birch, spruce, and balsam should be given two coats of hot oil with a brush. This will increase their durability at a very low cost. Little more can be done with them even by more elaborate and very much more expensive methods.

Cedar, white oak, and tamarack can be treated quite readily, but when treated they are no better than the cheaper woods, so their use for this purpose is unwarranted.

The posts for this work should be cut in the spring when they can be easily and thoroughly peeled, for even a thin layer of bark is a great hindrance to the penetration of the oil. They should then be carefully piled so that there will be a good circulation of air. Skids should be put under the pile to keep the bottom tier of posts off the ground. The treating can then be done late in the summer, or early in the fall.

THE DAIRY.

Ontario farmers sold \$77,550,584 worth of live stock in 1911, and \$35,385 worth in 1901, showing an increase of 42,165,208, or 119 per cent.

Cream cans should be covered with a wet sack to keep the temperature of the cream from rising to too high a point while on the road to the creamery.

In handling cream on the farm it is well to remember that it is the cooling of the cream and not the mere fact of getting it into water that is so important. If the cream is stirred faithfully it will in a few minutes be reduced to the same temperature as the water in the tank, while if put into the tank without stirring it may remain warm for several hours. It is needless to say that just so long as the cream remains warm the bacteria, which even under the most sanitary conditions have gained access to the cream, will not be hindered in their growth. The vast majority of milk bacteria, however, grow very slowly at the temperature of ordinary cold water; hence the importance of cooling the cream very quickly.

Breeding and Feeding for Dairy Purposes.

Editor "The Farmer's Advocate":

With all classes of live stock it is a matter of importance, before the animals are used for breeding, to allow sufficient time for quality and character of the parents on both sides to properly develop before progeny is reared. It is often the case that defects, either constitutional or otherwise, do not show until the animal has reached a reasonably full physical development. In nearly all cases, with all classes of stock, the best animals are the offspring of parents mature and well-developed on both sides—animals that have made a vigorous, thrifty growth from birth, and when bred are in good, healthy condition. Too young breeding is such a drain upon the vitality that, in many cases, the animal never fully recovers from the effects. Generally, however, the dam suffers from too early breeding more than the sire.

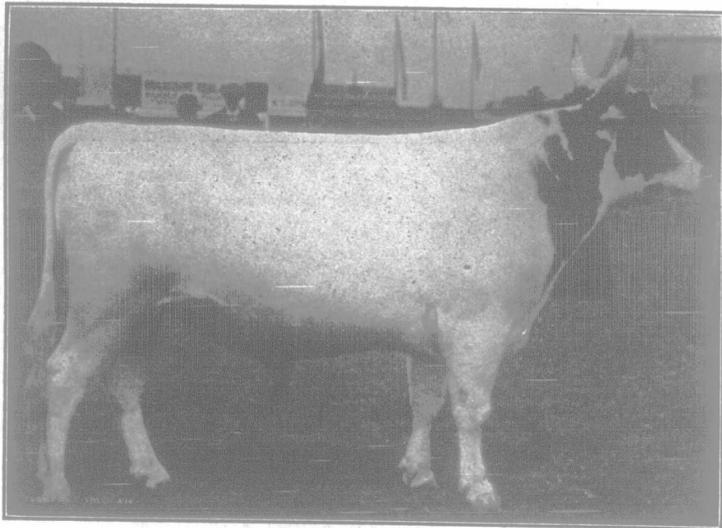
One of the best plans of management when breeding from animals which have not reached full development, is to mate them to older and more mature sires. If the sire is young he should be bred to older and more mature dams, but the dams that are being bred for the first time should be mated with well-matured sires that have proved themselves good breeders. In breeding up a dairy herd a judicious selection of both sire and dam is most important, and then must be pursued a system of feeding and management suited to the purpose for which the animals are being raised. Too many dairymen follow out these principles only in part. For instance, there are scores of dairies where a comparatively high-priced, pure-bred sire has been purchased and used, but the owner has paid no attention (or but little attention, at most) to the possibilities of his cows, and the result has naturally been that some of the stock is good and some poor. The owners then say it is all rubbish to talk about high-class sires, for their calves do not

tion is, what does she do with the surplus of her food? If she returns it in the form of milk she may be a profitable cow, but if she lays it on her back as fat she is not a dairy cow. The cow that has a tendency to lay on fat is to be avoided always, if one wants cheap milk production.

The size of the cow has little or nothing to do with the cost of milk production, which has been abundantly proved by experiments. It has time and again been demonstrated that there are large cows with comparatively small feeding capacity, and, on the other hand, some small cows have even greater feeding and digesting capacity than some of the larger ones. There is no one rule of feeding that has led astray so considerable a number of agricultural experimenters, and destroyed the practical value of their work, as the one declaring that animals should be fed according to their size. Some cows with short legs and light quarters will barely turn the scales at 900 pounds, and yet, having a capacious middle, will eat and digest more than others with long, heavy quarters, with a comparatively light body, and weighing 1,200 pounds. Small or medium cows have greater digesting capacity in proportion to their size than large animals. Indeed, this seems to hold with all domesticated animals, not only as far as feeding capacity is concerned, but in strength and endurance as well. In breeding to increase size, we always fail to increase strength and endurance, or speed, in the same proportion.

That the cost of maintenance is fairly measured by the size of the animal is true only in a general way. The temperament of the cow must be taken into consideration. An animal having a highly developed nervous system will, under certain conditions, require more food for maintenance than will another animal of the same size under similar conditions, but not having a highly developed vital temperament.

Breeding is an art that calls for something more than a simple mating of animals of the desired breed. There must not only be the qualities in the animals mated, but there must exist also the power to transmit those qualities to the offspring. Feeding, as an art, calls for something more than a simple supplying of a sufficient amount to satisfy the appetite. It calls for a study of the individual needs of each animal being fed. The art of feeding is not easily learned. Men who are thorough masters of the art of feeding are not so plentiful as those who are masterful breeders, and these are, indeed, few. As the art of breeding includes the science of breeding, so, too, does the art of feeding include the science of feeding. It must stand as true



Carsegowan Coronation.

First-prize Ayrshire bull at the Highland Show at Paisley.

average much, if any, better than those from the ordinary sire.

But the matter of careless feeding and management is the most common mistake. Some follow a line that tends every day to change a calf bred for dairy purposes into a beef animal, while others pay so little attention to the matter of feeding that they develop nothing but an ordinary animal, out of what, from its select breeding, ought to be a select one. Too many think that the feeding of the last few weeks before parturition is all that is necessary to develop a heifer into a first-rate milk producer. I am aware that I step out on to what may be called theory, when I say that the manner of feeding and handling the cow during conception exerts almost as much influence over the nature and capabilities of her calf as do the few months after its birth. But if it is called theory, it is most certainly a reasonable, common-sense theory, for no one can dispute this fact, that during conception the mother and offspring in embryo are identically one, and the food that nourishes the one also gives life and growth to the other. This being the case, what may be called theoretical by some, becomes practical. True, the matter of selection in breeding can, and does do considerable towards improvement, and the same is true of judicious feeding for a purpose, but to attain the most desirable results they both must go together, for neither is alone a success. By carefully practicing both it is an easy matter for any dairyman in a comparatively short space of time to considerably increase the product of his cows.

A certain proportion of the food of a cow is utilized in running her machinery, and the ques-

tion, however well-bred a dairy herd may be, it cannot prove profitable unless well fed. And no herd will be well fed unless each cow is supplied with the necessary nutrients in sufficient quantities to meet her individual needs.

Many farmers and dairymen feed all their cows alike. They do this for two reasons. One is for the convenience of the feeder, and the other and more binding one is that the idea is nearly universal that what is good for one cow must, of necessity, be good for all other cows. The first reason might be excusable, but the other is wholly unwarranted.

When a cow possesses the dairy type to a reasonable degree, and is not proving profitable, there is some good reason for it. In theory the dairy type should mean a good cow; in practice the good cow always has the dairy type. The conformation and the quality should be found together always. When the former exists without the latter it is the fault of some man, and cannot be justly charged up against the cow. Either the man who raised her failed so to feed her as to develop her dairy qualities, or her owner is not furnishing her the proper kinds and amounts of food. The chances are that her early treatment was faulty. I believe more cows are ruined for dairy purposes before they are two years old than after they come in milk. There are men who have tried to improve and breed up their herds, only to get heifers that have proved inferior to their mothers. As a result, pure-bred sires have been blamed, and pure-bred stock ridiculed, while the use of inferior animals for breeding has been continued.

When a well-bred heifer proves unequal to the parent stock it is usually the fault of the breed-

er, and not of the breed. The breeder should shoulder his own mistakes, and not blame the sire and dam for his lack of wisdom in feeding. The nerve force must be kept up, the lung capacity made large, and the digestion powerful and almost unlimited. Nerves, lungs, stomach and milk—secure the first three with any dairy-bred heifer, and the last, which is the object for which we work, will not fail.

Sometimes one acts too hastily, and condemns a heifer before she has had her chance to prove what she can do. If I had a well-built heifer that showed the evidences of being a good dairy cow, and she failed to do good work the first year, I should try her the second time. Full development does not come with the first year. This holds true, no matter at what age the heifer is first bred. My best cow has freshened with her third calf, and it would take big money to buy her to-day. As a heifer, her first year's work was not satisfactory, and many men would have discarded her. But she came from a good cow, and carried in her body the markings of a good dairy animal, so I kept her for another trial. She is now proving the wisdom of that decision. So I say that I believe many heifers are condemned too hastily.

The more uniform the herd, the less individual variation. This is a strong argument for a herd of the same breed if not of the same family, for feeding would thus be simplified, and labor saved and profit increased. The breeding and feeding of cows for greater production not only results in better cows and more profit, but the men in charge are made wiser.

Johnson Co., Ill. W. H. UNDERWOOD

The Importance of Milk Inspection.

In addition to its use for direct consumption, milk is the raw material from which cream, butter, cheese, condensed milk, etc., are obtained. Milk is the only food which will supply all the elements necessary for the growth and repair of body tissue, and is therefore the most important food for the human family. The average composition of normal milk is water 87.4 fat, 3.7 cream and albumin 3.2, lactose, or milk sugar 5, ash .7.

Not only is milk an excellent food for the animal kingdom, but it is one of the best artificial media for the growth of Pathogenic organisms (disease-producing organisms), when at body temperature. Therefore, it is easy to realize the importance of preventing, as far as possible, the infection of milk. Now with the ordinary method of milking and handling milk, this infection takes place to a far greater extent than is supposed by the majority of the public. There have been found on the ordinary milker's hands 45,000,000 bacteria, of which 98 per cent. could be removed by thorough washing. Nearly all milk taken on the farm contains faeces in the sediment. This is easily demonstrated by means of a filter, or in the cream separator. Now suppose this cow has pulmonary tuberculosis. She coughs up the sputum and swallows it, it is loaded with tubercle bacilli and passes out with the faeces. The cow is allowed to lie in it, and it gets onto the teats and udder, or over the surface of the body. This is still heavily contaminated with live organisms, the milker is careless and allows particles to drop into the pail. Now this occurs regularly in dairies. This milk is infected with living tubercle bacilli, and under most favorable conditions to go on and multiply. Bacteria increase very rapidly in warm milk. It has been shown that milk containing 300 streptococci per c.c., kept at room temperature for 24 hours increased to 4,000,000 per c.c. The same milk kept at 50 degrees yielded only 30,000 per c.c., thus showing the importance of not only keeping milk free from infection, but also of cooling to 50 degrees as soon as possible. Out of 195 cases of typhoid, 148 were caused by the disease having prevailed at the dairy. Seventeen cases were traced to the well, infection gaining the cans by washing with cold water. 16 cases were traced to intentional dilution with the infected water, seven cases to cows wading in filthy water, it getting on to the udders, and 24 were traced to the attendants who acted as nurse to the sick while still working in the dairy. This is sufficient to show how easily milk may become infected.

Another experiment was made with tuberculous cows. The milk was taken from the infected cows, and strained into glass dishes, left for 24 hours for the cream to rise. It was churned in a glass churn, and the butter was washed till free from buttermilk, then salted at the rate of one ounce to the pound of butter. It was then placed in a glass dish with glass cover and kept in the cellar in which the temperature remained fairly constant at 60 degrees F. When the butter was 99 days old 54 guinea pigs were inocu-

lated. Each received one gram injected, slightly warmed, into the abdomen. Forty-nine of these died with generalized tuberculosis, three from mechanical pneumonia, one from enteritis, one from peritonitis. The number of days between injections and death ranged from six to 121, the large majority died between 50 and 80 days.

Now this shows how dangerous it is to use milk from cows which have tuberculosis, even for butter, as these bacteria produced the disease after being in butter for 99 days. Some may argue that bovine tubercle bacilli will not set up the disease in the human race, but let us see.

Dr. Hess, of New York, in 1910, took 112 samples of milk from eight gallon cans, taking 10 c.c. from each can, and he found that 16 per cent. of these samples contained virulent tubercle bacilli. Twelve months later he went to the customers who had been using this milk and tested the children with the tuberculin test and found 25 per cent. were affected with tuberculosis. In Rochester, in the month of July, before dairy inspection took place, the number of infants who died was 1,010. The next year milk inspection was put into force, and the number of infants to die in July was 413,597 less than in the same month the year previous.

To produce pure milk: first, the herd must be free from communicable disease, tested by tuberculin test, the cows must be grazed on fields free from stagnant, filthy pools; the stable must be kept clean and well ventilated; the milker should wash his hands before milking; the cow's udder should always be wiped thoroughly, and, if dirty, wash and dry. Never milk with wet hands, it is a filthy method. The milk should be taken as quickly and cleanly as possible; then immediately strained into sterilized containers and cooled to 60 degrees F. as soon as possible. This prevents growth of bacteria. Scald all utensils for at least ten minutes with boiling water. Never use cold water, as you are in danger of infecting them after you have them sterilized by the scalding.

I have often been asked: "What is certified milk?" and "What is pasteurized milk?" Certified milk is milk which is produced at dairies which are regularly inspected, the herd free from tuberculosis, as shown by tuberculin test, and free from all other communicable disease, and bacterial counts taken regularly, which must be not more than 5,000 bacteria per c.c., in winter, and 10,000 in summer. Now this may appear to some as being pretty heavily contaminated, but the standard ordinary milk in many of the cities is 500,000 per c.c., or under; and many samples taken at farms will contain as high as 5,000,000, but this is dangerous food.

The name "pasteurized" originates from the great French bacteriologist, Pasteur, who worked out a method of sterilizing by heating to 150 degrees for 20 minutes, then cooling to room temperature to allow the spore-bearing bacteria to come into the vegetative stage. Then in 12 hours he reheated. This was done three times. Strictly speaking that is pasteurizing, but for milk it is only heated the once, then immediately cooled to 50 degrees and kept at that till delivered to the consumer.

What we mean by bacterial count is this, the sample of milk taken is put into sterile test-tubes. One c.c. of the milk is put into nine c.c. of sterile tap water and thoroughly mixed, making a dilution of 1-10. One c.c. of this dilution is put again into nine c.c. of water, making a dilution of 1-100, etc., making several dilutions. Then agar media is used. It is used on account of its solid consistency, the agar is heated to about 40 degrees C., just so it will pour, but is not hot enough to inhibit growth of bacteria. The milk dilutions are poured into glass plates which are sterilized, and the agar is poured over it, this is allowed to come down to 37 degrees C. At this temperature it solidifies. These are incubated for 24 hours. At the end of this time each bacterium will have produced a colony, which shows as a light streak in the agar. These colonies are easily counted; from this the number of bacteria per c.c. is easily worked out. I am not giving this in detail, as it can only be done by one who has some knowledge of laboratory bacteriology, but the reader will understand when he sees a report of 500,000 of a bacterial count in milk that the bacteriologists didn't count 500,000 bacteria, but by the dilutions they have been correctly worked out. This is the only correct method of detecting dirty milk. A high bacterial count means either one or more of the following:

1. That the cow is diseased, or
2. The milk has not been kept cool.
3. Or it is stale.
4. Or it has been handled in a dirty or careless manner.

Oxford Co., Ont.

REX.

Fix the Responsibility.

When a disastrous railway accident occurs the whole trend of the enquiry is to ascertain the cause, so that measures may be taken to prevent a recurrence of the wreck. If a fault is noticed in any workshop, is not the particular delinquent sought out? Every traveller on a steamer pays passage money; the several branches in a department store are all expected to show a profit on the year's business. So the dairy farmer will do well to enquire as to whether he has any delinquents in his present herd of cows, perhaps one or two are in a fair way to wreck his fortunes, their passage money may be paid by some better producers, for often two or three out of every herd of twenty cows show no profit at all on the year's production of fat.

Plenty of cows in June and July gave over one thousand pounds of milk, and over thirty-five pounds of fat. What dairyman would voluntarily keep the kind of cow that yielded only twenty-four pounds of fat, or those that gave only four hundred pounds of milk during last month? Yet some men got only that much from a great many cows in Ontario and Quebec. This is the point: each dairy cow has a certain responsibility, that of producing plenty of milk and fat at a profit. So, also, has the dairyman his responsibility, that of knowing his cows do not shirk theirs. His business is to know what each cow does; she won't tell, he has to keep individual records to find out. They cost little, they do much.

C. F. W.

POULTRY.

Egg Laying Contest and Breeding For Eggs.

The results of some of the egg-laying contests which have recently been carried on, emphasize many important principles in egg production, says a United States bulletin on experimental work, and since there is at the present time an endeavor among poultrymen to produce a maximum amount of eggs for table purposes, with less attention, possibly, to the production of market poultry in the form of broilers and roasters, it would seem that the more important facts brought out in the contests, contain valuable lessons for many.

T. E. Quisenberry, who conducted a contest in Missouri, states from the results obtained that apparently there is no variety or breed which far excels other varieties or breeds in general use as far as egg production is concerned.

More, he says, depends upon the strain or breeding as to the number of eggs a variety will produce than upon the variety itself. Some hens have a born tendency to lay and others to put on fat. The latter kind should be culled out in establishing a laying strain.

More depends upon the breeding of the male as to the number of eggs the offspring will produce than upon the female, yet it will pay to breed from the best layers in preference to the poorest. Breeders should select the variety which suits them best as to color, size, and shape, and breed up until the fowls satisfy them as to quality and productiveness. They make a mistake by jumping from one breed to another, trying to discover a better layer. It will pay the average poultryman to trap-nest his flock in fall and winter, and breed from the pullets which lay earliest in life, and from the pullets and hens which lay in the winter.

The best producers have broad bodies. The back is broad and the ribs are widespread, giving plenty of room for the egg organs and digestive organs. Their bodies are solid. The birds are not loose-jointed, but compactly built. Good layers are big eaters. A bird must have capacity to eat and digest a great amount of food if she is to lay a great number of eggs.

A big decrease in the egg yield in winter can be brought on more quickly by great variations in temperature, sudden changes in weather conditions, than by continued or prolonged spells of either cold or rainy weather. It will pay to keep a good hen until she is four years old. We had several four-year hens that laid over 150 eggs each. Most of the high producers have good-sized combs for birds of their variety.

In a contest conducted at the Connecticut Storrs station, the highest individual average per hen was 214 eggs; in Missouri contest, 208 eggs. The average of all hens in the Missouri contest was 134.

A ten-year egg-laying contest with 360 hens of 60 different breeds closed in New South Wales in 1912. During that time there was a noticeable improvement of the type of bird, and the average number of eggs was raised from 131 to 184 per hen per year. The highest pen average exceeded that of either Connecticut or Missouri.

The results indicate the possibility of raising the average production, not only of breeders, but of farm flocks, with little or no additional cost. To this end the poultryman should constantly try to build up his flock. This can best be done by

selecting only the best females from the entire flock, by mating them to good vigorous males from high-laying mothers, and by using this special mating as a breeding pen from which all eggs for hatching should be saved. In this way a continual improvement will be had, which can not be assured when the entire flock is used to propagate the future layers. In other words, as the New Jersey station points out—

"The time has come for the poultryman to pay more attention to individual birds, and less to the flock as a whole, especially when breeding for future producers. The practice of making special breeding pens in this way is bound to result in time in larger, more vigorous birds, better layers, and hence more profit.

"Great care should be exercised not to include in these special matings for breeding purposes any birds which have had any poultry disease. Some diseases, such as bacillary white diarrhea, are known to be directly inherited, others are known to give to the offspring an inherited weakness which makes them especially susceptible to that particular disease. This is true of tuberculosis, diarrhea, enteritis, etc. Still others, such as roup, catarrh, and other general disorders, weaken the birds constitutionally and make them unfit for breeding. Any bird once affected with disease should be conspicuously marked, so that it may never find its way into the breeding pens.

"In selecting the females for the breeding pen in the spring, the following factors have been found by observation and experimentation, to be essential to heavy egg production, namely:—

1. Breeding from heavy producers.
2. The use of mature birds, preferably hens, not pullets.
3. Line breeding rather than too close inbreeding or outcrossing.
4. Breeding from birds which were early producers as pullets.
5. Selecting birds which show a good vigorous constitution.
6. Selecting for egg type (long, rather deep bodies with abundant room for the organs of digestion and reproduction).
7. Selecting large specimens of the breed.
8. Selecting late molters since they are usually the best winter layers.
9. Breeding from birds which have shown by records to be persistent layers.
10. Selecting birds that eat well, rise early, and retire late, for such birds are usually heavy layers."

The work of the Maine station indicates that in this breeding, matings should be made only with the male progeny of high-laying mothers, because the high egg-producing power is transmitted through the male.

Without strong, well-bred birds a good egg yield is not certain, even with the most efficient management. Hence much time and thought and if need be, money should be expended in the improvement of the flock by mating and breeding.

The birds set aside for breeding should be so cared for as to provide for the production of fertile eggs in the breeding season, which will hatch into vigorous chicks. They should not be crowded into small, insanitary houses, nor should they be forced for a heavy egg yield during the winter. The three factors which especially favor the production of fertile eggs are exercise, which can be made compulsory by supplying most of the feed in deep litter on the floor of the pen; green food, which, for want of beets or cabbage, can be supplied in the form of sprouted oats; and meat scrap, supplied liberally (15 per cent) during the breeding season, but not excessively prior to the breeding season.

The saving of eggs for hatching purposes should begin about the 1st of February. They should be collected at least twice a day, and should be kept at a temperature of about 45 deg. to 50 deg. They should not be subjected to great variations in temperature, and should be placed so that they may be turned daily and protected from the direct rays of the sun. The factor of temperature is especially important, for the germ (embryo) begins to develop at 70 deg. F. High temperatures start the development of the germ, but if heat is not supplied uniformly it ultimately dies. As a result of this, many eggs are later tested out as infertile. Eggs for hatching should be selected with a view towards uniformity in shape, size, and color, the idea being to select toward the ideal type of egg for the breed kept.

Raising Chickens.

Editor of "The Farmer's Advocate":

Many of our farmers' wives are complaining of poor hatches of chickens this year. But even when the eggs hatch well it is hard to raise the tender little chicks to maturity. There are hawks, crows, and rats, craving for fresh meat, and consequently never miss an opportunity of having a good meal. Then the chicks are sometimes killed by getting under the feet of the horses and cattle, although the hen does her very best to take care of her family she is so proud of, and for whom she will bravely fight.

One of our hens stole away her nest under a pile of brush or branches. Evidently she didn't believe in having a large family, for when we found the nest there were only eight eggs in it. After a while she came home, bringing seven fine chickens. But she always returned to her old nest at night, down in the clover field. We never shut them up, only fed them when they came looking for food. We always used to imagine that chicks should be shut up for a few weeks after they were hatched and never let out in the morning until the dew was off the grass. But this summer we let them run, and they have thrived well. No matter how hard it rained we just left them in their mother's care, and we never lost one. I think it is a great mistake to shut up the chicks when they are just hatched, for they do so much better when they have their liberty. The mother hen knows her business, and we need not interfere with her methods. She knows when the little ones are getting cold or wet, and then she calls them under her sheltering wing and the warmth of her body puts new life into them, as it were.

In many instances only about half of the eggs set under hens hatch. But when the hen is mistress of the situation and steals away her nest she seldom fails to have a good flock of chicks, which surely proves that she has good common sense, and knows just how to manage. Our chicks have been out in the wet grass, and in pouring rain, but it never hurt them in the least. As long as we give them good food, water, and liberty the mother hen will do the rest, for she is an industrious, faithful mother.

In view of the high prices for chickens and eggs, many of our farmers are increasing the size of their poultry flock. If properly managed, there is certainly money in poultry. One farmer, who lives about twenty miles from the city, says that his 100 hens bring him in about one dollar a day. He has about 60 chickens this year.

P.E.I.

ANNIE RODD.

HORTICULTURE.

How Fire Blight is Disseminated.

No doubt many readers of "The Farmer's Advocate" have noticed in orchards in their localities a number of twigs and large branches upon which the leaves have all browned and dried up, and often blackened, much as though they had been injured by fire or frost. The leaves do not drop readily, but cling tenaciously to the twigs. Apple shoots often turn to an amber-yellow, or reddish color, and characteristic cankers appear. This is all caused by the presence of a species of bacteria (*Bacillus amylovorus*), which remain alive over winter, and become active in the spring when the warm weather causes the sap to commence to flow. A gummy exudate oozes out of the lenticels and cracks in the infected bark laden with these organisms. The disease attacks blossoms, shoots, limbs, and may extend down to the root.

It is well known that spraying is ineffective, and as no blight remedy has yet proven effective with such a disease it is important that fruit growers understand its methods of dissemination and a recent Cornell bulletin on the "Control of Fire Blight Disease in Nursery Stock" by Vern. B. Stewart, gives some valuable information.

Such agents as bees and wasps have long been conceded important in the spread of blossom blight, says the bulletin, but in recent years certain other insects have been associated with the spread of the disease, particularly with twig blight. While visiting blighted tissues the insect becomes smeared with the gummy exudate and carries the bacteria to the tender twigs. In sucking the sap from the twigs the insect punctures the tissue and thus furnishes a means of entrance for blight germs.

The common green aphids (plant lice) frequently spread the disease in apples and quinces. However, of all the sucking insects that may disseminate the blight bacteria in the nursery, perhaps the most important is the tarnished plant bug (*Lygus pratensis*). This insect has been recognized for many years as the cause of the severe injury to peach stock known as "peach sting." The injury resulting from the insect's "stinging" the terminal shoot of the first-year peach buds causes the tree to make a stunted, bushy growth and to fall short of the proper height. During the past two seasons, not only has the peach stock been injured in this way, but considerable damage has been apparent in several blocks of first-year apple buds. A large number of apple shoots that had been stung by insects a few days previously, developed infections of fire blight. When abundant in blocks of two-year-old stock (especially in apples where there may be considerable blight) the insects visit the sweet, gummy exudation on infected trees, and thus not only spread the disease to the large trees, but carry the bacteria to adjoining blocks of one-

year-old apple stock where infections occur through the punctures made by the insects.

Besides the general distribution of the blight germs by insects, man himself is often an active agent in spreading the parasite. His pruning tools are certainly a frequent means of transmitting the organisms. In Maryland a nursery block of 10,000 trees of Bartlett and other pears was completely destroyed by blight. This block, as determined by the specimen, carried actual samples of hold-over blight in the stocks. When the stocks were cut off above the dormant buds in the spring, the pruning tools became infected and the disease was transmitted to nearly every tree reached by the pruners. Instead of the buds pushing up, the cut surface began to gum and blight.

Blight is frequently introduced into seedling blocks by the use of diseased scions that have been cut from two and three-year-old stock in which considerable blight has been present. The seedlings, which are budded with diseased buds, not only blight, but bacteria are carried on the budder's knives to other seedlings. Later, at rebudding time, the budders, being unfamiliar with the disease, frequently attempt to rebud the blighted stocks; their knives become infected and the bacteria are transmitted to other seedlings. The number of diseased seedlings is also frequently increased when the strings used for tying the buds are cut. Often in cutting the string a slight incision is made in the bark and the trees are inoculated in this manner, blight germs having been carried on the knives from diseased stocks.

Blight may also be introduced into the seedling block by means of insects, which carry the bacteria to tender shoots. Occasionally, entire trees become diseased in this manner. However twig infections are seldom if ever so abundant in the seedlings as to be the source of a serious outbreak of the disease. On the other hand, an attempt to bud such infected seedlings would tend to favor the more rapid spread of the disease, the blight bacteria being carried to healthy trees on the budding knives.

The shipment of scions from one nursery to another may also be a means of transmitting the blight for long distances, and bacteria have even been known to live over in scions used for grafting purposes. In the winter, when the grafts were made, the grafting knives became infected, and transmitted the blight bacilli to grafts made from healthy scions.

The elimination of certain disseminating agents is an important consideration. It has been demonstrated that controlling the aphids is frequently an essential step in preventing the spread of blight bacteria. The greatest necessity at the present time, however, is a means of eradicating from the nursery the numerous other sucking insects which occur on stock that is susceptible to fire blight. Of these blight disseminators the tarnished plant bug (*Lygus pratensis*) appears to be the most important.

The most satisfactory means of controlling the blight is by strict sanitation and an attempt to eradicate the disease from any given locality. All sources of infection should be destroyed. Old orchard trees—such as pear, apple, or quince—in the vicinity of the nursery, usually favor the blight, in that frequently such trees become diseased, and, for years to follow, are sources of infection for nursery stock. Unless they are given special attention and kept free from the disease, their presence is a menace to the nursery. Old, neglected orchard trees should be removed, and every effort made to keep the surroundings clean. Old hawthorn and wild crab-apple trees along the fence rows or in near-by pastures frequently harbor the blight. Such trees should be destroyed. Too much emphasis cannot be laid on the necessity of a thorough and systematic cleaning-up of all diseased trees before growth starts in the spring. Orchard trees in the vicinity should be inspected at least once a week throughout the summer; all blighted twigs, shoots, and water sprouts should be cut out, the cut disinfected with corrosive sublimate 1-1,000, and the prunings burned.

A thorough cleaning-up and removal of all sources of disease in early spring naturally reduces the possibility of blight infection in the nursery. As previously pointed out, however, bees and other insects frequently carry the bacteria from oozing hold-over cankers, which are especially common on orchard trees, to blossoms that often appear on the two-year-old quince stock. Since the production of fruit by such trees not only causes a stunted growth for the tree, but also furnishes a source of infection at blossoming time, it is considered good practice to pinch off or remove all quince blossoms before they open.

The apple crop in the Niagara district is reported very light, but a very heavy crop of peaches will be harvested, and plums and pears are also a good crop. Much the same state of things is reported from Lambton county.

FARM BULLETIN.

Regina Exhibition Makes a Record.

All records were broken at this year's Provincial Exhibition at Regina.

Fresh as a morning rose did it open on July 28. As the component parts materialized and developed under the able management the full measure of the 1913 Provincial Exhibition at Regina was realized by exhibitors and visiting public and the 1913 exhibition at Regina flowered into the greatest of Saskatchewan's provincial exhibitions, and in one phase, that of Clydesdale horses, outstripped, we believe, anything of the kind that has been seen in Canada. In all breeds of live stock America-famed individuals were seen as well as local-bred stock of creditable merit. However, first and foremost position in the field of agriculture was the unprecedented display of Clydesdales and Percherons. There has been strong competition in Clydesdales at other exhibitions which has raised most favorable comments, but Regina seems to stand above all when it comes to an exhibit of the Scottish draft horse.

For the success of the exhibition the management are due a full share of credit. They have consistently and persistently labored for a large and high-class exhibition, and were this year well rewarded. To rebuild the main building and grand stand which were destroyed by fire little over a month ago, and at the same time keep other departments of the exhibition running smoothly, and to open the fair with all departments in order was no small undertaking, and speaks well for the ability of the new manager, D. T. Elderkin, who assumed office last spring, and also for the directorate which has always been a progressive body.

HORSES

Clydesdales—In nearly every class of this breed from top to bottom of the line, quality was to be found, and in never a class were individuals shown that reflected discredit on the breed. Canadian-bred classes were exceptionally strong, the rivalry being almost as keen as in the open classes.

In the aged stallion class, R. H. Taber, of Copdie, landed top place with The Bruce, by Revelanta. Wm. Barnsley, of Abernethy, Sask., was second with Garty Bonus, and Hugh McLean, Arcola, third, on Prince Robert.

R. Sinton, Regina, led in three-year-olds with Public Notice.

A grand string of two-year-olds was headed by Bryce's Gallant Buchlyvie, by Bonnie Buchlyvie, a roan colt, of great substance and quality. Sinton was second with Rothesay Ronald.

First place in yearlings went to R. Leckie on Regal Sensation. Hillcrest Favorite, a son of The Bruce, stood second for A. and G. Mutch.

The Bruce with his great quality of underpinning and superb action, was made champion, with Garty Bonus reserve.

A great string of strong-topped, clean-limbed mares lined up in the aged class, which was won by Caswell's massive, black Mayoress, by Silver Cup. Taber's Queen of Revels, by Revelanta, stood second, and Lady Montrave Ronald was third for Bryce.

In three-year-olds the first three places were taken by Will Grant on Lady Hopetoun, Snowflake of Appleby, and Nellie Lansdowne.

Two-year-olds were an outstanding class, and seldom is such a string seen in a Canadian showing. Bryce's Countess of Moray led with his Doune Lodge Floradora second.

In foals, Taber led, and also got third and fourth on colts by The Bruce. The same owner got first, third, and fourth in the class for mares with foals at foot.

Prince Robert was the best Canadian-bred stallion, and Doune Lodge Floradora was champion female.

Percherons—Never in the history of the Regina Show has there been such competition in the Percheron classes.

J. C. Drewry, as at other shows, led in the aged class with Jureur. The same owner led in three-year-olds with Pontiac, and got 1, 2, and 3 in two-year-olds on Nolan, Sylphant, and Miscarnot.

Upper Bros. led in yearlings with Futurity and Stampede.

In brood mares with foal at foot, Upper Bros' Quickstep won.

Drewry's Flossy again won the aged class, and later landed the championship. Upper Bros. were second and third on Pauline and Venette.

Two-year-old fillies were led by Upper Bros' Abiline, the same owners' Irene going second.

Drewry won first and second in yearlings on Glorianna and Glenette.

Belgians—Some very keen competition took place in Belgians. E. Pootmans and Sons won many prizes in the filly classes, and W. C. Hen-

derson got the best of the money in stallions.

Shires—This breed made a rather small exhibit. A. C. Shakerley, of Pekisko, Alta., and O. J. Hopkins, Anerley, Sask., had out some very creditable animals, but not enough of them to make a strong showing.

W. H. Bryce won the prize for the best five Clydesdales, but the best five animals were the Percherons belonging to Drewry. Best ten animals of any draft breed were Grant's Clydesdales. W. H. Bryce's champion Clydesdale mare, Countess of Moray, was awarded the prize for best draft mare or gelding, all breeds competing.

CATTLE

Never has Regina had such a wealth of cattle competition. Although the beef classes on the whole were not stronger than in previous years, the dairy breeds presented an array which much surpassed the expectation of the most sanguine admirer. Ayrshires, Holsteins, and Jerseys were on hand with choice quality and in goodly numbers, while in the beef breeds Shorthorns, Aberdeen-Angus and Herefords afforded a sight for the Saskatchewan visitors.

Shorthorns—The two worthy competitors, H. L. Emmert, of Oak Bluff, Man., and R. W. Caswell, of Saskatoon, with their strings of now famous Shorthorn cattle left nothing wanting in the line of controversy. Their stock has quality second to none on the continent, and in most classes a goodly number came into the ring. Local breeders, however, did not take the interest in the show they might have. This was exemplified by not bringing out their herds to compete for the honors.

The ribbons were placed on favorite winners of past shows with the exception that a few changes were made in giving the championship awards, Gainford Marquis, that smooth bull with great scale, owned by R. W. Caswell, took the championship, while H. L. Emmert's junior yearling Royalist, was made reserve grand champion.

In the females, Emmert's Sittyton Lady 3rd won the championship ribbon, while the reserve championship was taken by Emmert's Duchess of Gloster. They were both very smooth, typey individuals and well worthy of the honors obtained.

Herefords—There were three main exhibitors in Herefords, L. O. Clifford, of Oshawa, Ont.; J. A. Chapman, of Hayfield, Man., and Mossom-Boyd Co., of Prince Albert. The animals exhibited were a credit to the breed and the kind that popularizes. They are smooth, well-finished, typey animals, and the breeders deserve great credit for raising individuals with such excellent conformation. Many reversals occurred at Brandon, but Judge Robt. Miller, to the satisfaction of the breeders, awarded the prizes much the same as they were awarded by Prof. F. C. Curtis at Winnipeg.

Clifford's bull, Refiner, was grand champion and Chapman's Gay Lass 5th again won the highest award in the female classes.

The herd competition was excellent, Clifford winning with a herd headed by Refiner.

Aberdeen-Angus—Again Jas. Bowman, of Guelph, Ont., exhibited against J. D. McGregor, of Brandon.

In the bull classes Bowman secured the major part of the prize money, but in females McGregor took the long end of the purse. Few comments need be made on the class of stock these two exhibitors have because they are known America-wide as being two of the foremost breeders with the very best of material. The placings made by Robt. Miller were much different from those at Brandon, but in accordance with the views of the exhibitors and spectators.

In the bull class Jas. Bowman took first in aged bull on Elm Park Wizard; second in two-year-olds on Beauty's Prince; first in senior yearlings on Elm Park Mailbag 3rd; first and second in junior calves on Elm Park Kaffir 2nd and Elm Park Wizard 3rd. The smoothness of conformation and scale of Bowman's stock is excellent. This may be especially applied to the aged bull Elm Park Wizard. This latter individual took the championship, with Bowman's Beauty's Erwin in the reserve position.

In the females, J. D. McGregor obtained the senior and grand championship on Pride of Cherokee 19th, and the junior championship on Black Rose of Glencarnock. McGregor was first for best three Angus calves and Bowman second; and first for three, the get of one bull, with Bowman in second position; first place in herds also went to McGregor and second to Jas. Bowman.

Ayrshires—The competitors in the Ayrshires were similar to those that came before the judge at Brandon and Winnipeg, with the exception of a few local exhibitors who brought in herds of no mean calibre that added considerably to the keenness of competition.

It need hardly be mentioned that the class of Ayrshires displayed was of an exceedingly high standard. In fact the best Ayrshire breeders that we have in this country had out their top-notch show herds and competed for the money.

The exhibitors were: R. R. Ness, Howick, Que.; Rowland Ness, De Winton, Alta.; F. O. Harrison, Pense, Sask.; A. P. Hammond, Grand Coulee, Sask.; and W. H. Morston, Fairlight, Sask.

R. R. Ness' great prize-winning aged bull, Hobbsland Masterpiece, was again champion, and the same owner's Broomhill Flora 2nd got similar honors in the female classes.

The Holstein classes were not as strong as those that came before the judge at either Winnipeg or Brandon, owing to the absence of A. C. Hardy's herd, which put up such good competition. However, even with the absence of this herd, Regina had the choicest competition in the Holstein classes. Not merely from the standpoint of numbers was this the case, but also from the standpoint of quality. The individuals competing for the honors were certainly of a high rank, they being the real milk-producing kind. The sires in the various male classes were a breedily lot, and displayed to a marked extent dairy qualities. The exhibitors were: Logan & Robertson, of Edmonton; H. Hancox, Dominion City, Man., and A. B. Potter, Langbank, Sask.

The championship in males was taken by Logan & Robertson's aged bull, the same owners' Jacoba Johanna being female champion.

Jerseys—The Jersey competition was much stronger than anticipated, and some really top-notch individuals of the breed entered the ring for competition. Some of the animals had been winners at the large Eastern shows and almost unbeatable in Canada. Most of the top prizes were taken by B. H. Bull & Sons, of Brampton, Ont. Their stock is certainly the rare good kind, and especially the aged cow and two-year-old bull are bristling with dairy points and Jersey type.

Bull & Sons received first and second in two-year-old bulls, first and second in yearling bulls first and second in bull calves, and also received the championship and reserve in the male classes.

In aged females, Bull & Sons took first and second, while T. A. Cox, of Brantford, Ont., was third, and W. M. Keay, of Regina, fourth.

Bull & Sons took first, third and fourth in two-year-olds on three exceptionally breedily looking ones. T. A. Cox received second place.

Bull & Sons obtained the first three prizes in yearling heifers on individuals well blessed in dairy points.

T. A. Cox received first in heifer calves, while Bull & Sons were second, third, and fourth.

Bull & Sons took the championship ribbon on the aged cow.

SHEEP

The sheep display was a revelation to the people of the West. J. D. McGregor and Jas. Bowman, of Guelph, fought it out in Suffolks, the former getting the lion's share. Peter Arkell & Sons, Teeswater, Ont., led in Oxfordshires. Robt. McEwen and T. A. Cox led in Southdowns. Cox got the major portion of the money in Shropshires and Leicesters.

SWINE

The excellence of the swine exhibit was very gratifying to the management of the show and to the visitors. The stock on display was certainly a credit to the breeders, to the breeders, and to western Canada. The competition, especially in the Yorkshires, Berkshires, and Duroc-Jerseys, surpassed even the most sanguine expectation of Regina.

T. A. Cox, Brantford, Ont., won the greater part of the money in Berkshires, and a fair share in Yorkshires.

Fires Damage Exhibition Buildings.

On Sunday, August 3rd, fire broke out in the sheep pens at the Canadian National Exhibition Grounds, Toronto, Ont. With a wind to drive them along, the flames soon ran through the long alleys of the wooden structures, and spread to the new brick poultry building close at hand, which was gutted. A large amount of tents and other effects belonging to companies and individuals making exhibits at the coming show, were also destroyed.

Following closely upon this news came the report that about 200 feet of the hog and sheep pens on the grounds of the Central Canada Exhibition, Ottawa, had also gone up in smoke. It is expected that these will be replaced in time for the coming fair, but temporary sheds will be necessary for the poultry at Toronto, and it is likely the sheep will be exhibited in a large tent.

A school inspector's short course and Rural Education Conference was held last week August 4th to 8th in Massey Hall, Ontario Agricultural College, Guelph, Ont. Many notable educationists are included amongst the speakers.

Census statistics in Ontario show an increase in the weekly wage paid farm laborers of 39 per cent. in 1911 over that paid in 1901.

Markets.

Toronto.

At West Toronto, on Monday, August 11, receipts at Union Yards were: 126 carloads, 2,645 cattle, 281 hogs, 144 sheep and lambs, 277 calves, 30 horses. No sales. At the city yards there were 6 carloads, 113 cattle, 66 sheep, 30 calves. Butchers' cattle sold at \$5.15 to \$6.40; cows, \$3.50 to \$5. Sheep, \$3.50 to \$5. Lambs, \$6.50 to \$7. Stockers and feeders, \$4.25 to \$5. Calves, \$4 to \$8.50.

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

	City.	Union.	Total.
Cars	19	289	308
Cattle	277	3,913	4,190
Hogs	83	5,332	5,415
Sheep	912	3,640	4,552
Calves	143	705	848
Horses		13	13

The total receipts of live stock at the two markets for the corresponding week of 1912 were:—

	City.	Union.	Total.
Cars	98	230	328
Cattle	905	3,192	4,097
Hogs	2,714	4,378	7,092
Sheep	2,024	2,548	4,572
Calves	613	277	890
Horses		120	120

The combined receipts of live stock at the City and Union Yards, show a decrease of 20 car loads, 1,677 hogs, 20 sheep, 42 calves, and 107 horses; but an increase of 93 cattle compared with the corresponding week of 1912.

It will be seen by the above tables that the receipts of live stock for the past week were not nearly as large as for the previous week, nor for the corresponding week of 1912. On that account trade was more active, although prices for cattle were little better. There were plenty of cattle to supply the demand, although there were not as many of good quality. Sheep and calves, as well as hogs, remained about steady at the prices quoted in our last letter, while lambs were fully 25c. to 50c. per cwt. lower.

There was little demand from outside points, especially from Montreal, and this had the effect of holding the market steady, especially for cattle.

Exporters.—The Swift Canadian Company bought for the London market, 1,809 lbs. each, at an average of \$6.75; also 150 steers for Liverpool, 1,271 lbs. each, at an average of \$6.55. The highest price for exporters was \$6.90, while for the previous week the top price was \$6.85.

Butchers.—The good to choice butchers' sold at \$6.30 to \$6.70; medium, \$5.90 to \$6.25; common, \$5 to \$5.90; inferior, light-weights, \$4 to \$4.80; cows, at \$3.50 to \$5.50; canners and cutters at \$2 to \$3.25; bulls, \$4 to \$5.50.

Stockers and Feeders.—On account of the dry weather, pastures are and have been falling in many parts of Ontario, which has caused a much larger number of young cattle to be marketed, especially light steers and heifers, and prices for these have declined. A large percentage of these came from Eastern Ontario, which, being ill-bred and in poor condition, were hard to dispose of at any price, some selling as low as \$2 per cwt. Choice steers, 800 to 900 lbs., sold at \$5.25 to \$5.50. Choice steers, 700 lbs., sold at \$5; common to medium steers, 600 to 700 lbs., sold at \$4 to \$4.50; stockers ranged all the way from \$2 to \$3.75.

Milkers and Springers.—There was little change in the market for milkers and springers, there being a moderate demand, and a quiet trade all week. Prices ranged from \$10 to \$75, and the bulk of sales were made between \$45 and \$65 each.

Veal Calves.—Good to choice calves were firm all week. Prices ranged as follows: Choice veals sold at \$8.50 to \$9; good, at \$7.50 to \$8; medium, \$6 to \$6.75; common, \$5 to \$5.50; inferior rough Eastern calves, \$3.75 to \$4.75.

Sheep and Lambs.—Sheep were firm all week. Light ewes, 100 to 130

lbs., at \$5 to \$5.50; ewes, 140 to 160 lbs., \$4 to \$5; sheep, 160 lbs. and up, \$3 to \$4; culls and rams, \$2 to \$3. Lambs.—The lamb market kept declining gradually until \$6.50 to \$7 took the bulk of the offerings. Cull lambs sold from \$5.50 to \$6.25.

Hogs.—There was an effort made by the buyers to put hog prices lower; but there was little accomplished in this direction. Prices for hogs, fed and watered, ranged from \$10 to \$10.30, the bulk going from \$10.10 to \$10.25; \$9.90 to \$10 were the f.o.b. prices.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 98c. to \$1, outside; Manitoba, No. 1 Northern, \$1.02; No. 2 Northern, \$1; No. 3 Northern, 96c., track, lake ports.

Oats.—Ontario, No. 2, 34c. to 35c., outside; 36c. to 37c., track, Toronto; Manitoba, No. 2, 39c.; No. 3, 38c., lake ports.

Buckwheat.—No. 2, 52c. to 53c., outside. Peas.—No. 2, 90c. to 95c., outside.

Corn.—American, No. 2 yellow, 73c., midland; 78c., track, Toronto.

Rye.—No. 2, 61c. to 62c., outside. Barley, for malting, 50c. to 52c.; for feed, 43c. to 48c., outside. Flour.—

Ontario, ninety per cent. Winter Wheat.—Flour, \$4.10 to \$4.15, seaboard in bulk; new flour, \$3.75; Manitoba flour.—Prices at Toronto are: First patents, \$5.50; second patents, \$5; in cotton 10c. more; strong bakers', \$4.80, in jute.

HAY AND MILLFEED.

Hay.—Baled, in car lots, track, Toronto, new crop, \$11 to \$12 per ton; No. 2, \$10 per ton.

Straw.—Baled, in car lots, track, Toronto, \$9 to \$10 per ton.

Bran.—Manitoba, \$19, in bags, track, Toronto; shorts, \$20; Ontario bran, \$19, in bags; shorts, \$20; middlings, \$23 to \$25.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; city hides, 13c. to 13½c.; country hides, cured, 13c.; calf skins, per lb., 16c.; lamb skins and pelts, 20c. to 45c.; sheep skins, \$1.50 to \$1.85; horse hair, 35c. to 37c.; horse hides, No. 1, \$3.50; tallow, No. 1, per lb., 5½c. to 7c.

WOOL.

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

COUNTRY PRODUCE.

Butter.—Market easy. Creamery pound rolls, 27c. to 28c.; creamery solids, 24c. to 25c.; separator dairy, 23c. to 24c.; store lots, 20c. to 21c.

Cheese.—New, large, 14c.; twins, 14½c.; old, large, 15c.; twins, 15½c.

Eggs.—Market firmer. New-laid, by the case lot, 24c. to 25c.

Honey.—Reports of there being a large crop of new honey has caused the market to have an easier tone and extracted No. 1 clover honey is quoted at 12c. to 13c.

Beans.—Hand-picked, imported, \$2.30 to \$2.40; Canadian, hand-picked, \$2.25; primes, \$1.75 to \$1.85.

Potatoes.—There are no car lots of Canadian potatoes as yet, but they sell at \$1.25 per bushel; and American potatoes are worth \$3 to \$3.50.

Poultry.—Receipts of live poultry continue to be plentiful. Prices range as follows: Chickens alive, 20c. to 22c. per lb. and 25c. to 26c., dressed; ducks alive, 12c. to 14c., and 16c. to 18c., dressed; hens, 12c. to 14c. alive, and 16c. to 18c. dressed.

FRUITS AND VEGETABLES.

Receipts of reasonable fruits and vegetables during the past week were the largest yet, which caused prices in some instances to be cut in two. Tomatoes one week ago sold at \$1.50 per basket are down to 40c. and 50c. per basket; Canadian peaches, 35c. to 60c. per basket; plums, 35c. to 50c. per basket; gooseberries, 75c. to \$1; red currants, 80c. to \$1 per basket; raspberries, 12c. to 15c. per quart; blackberries, 8c. to 10c. per quart; blueberries, per basket, \$1.50 to \$1.75; black currants, basket, \$1.50 to \$1.75; apples, basket, 30c. to 50c.; beans, basket, 25c. to 35c.; pears, basket, 40c.; green corn, 15c. to 17c. per dozen; water melons, 35c. to 60c.

Montreal.

Live Stock.—Supplies of cattle on the local market showed some increase last week, and this, together with the warm weather, had a weakening effect on the market, and prices were a shade lower. Best cattle were quoted at 6½c. per lb.; fine, 6c. to 6½c.; medium, 5c. to 5½c., and common, down to about 4c. Some stock was to be had as low as 3½c. per lb., this, however, being for canners. Small meats were in good demand and prices were fairly steady. Sheep were quoted at 4c. to 4½c. per lb., and lamb at 5c. to 6c. per lb., these prices being a little down from the recent low. Calves were \$3 to \$5 each for poor, and \$6 to \$8 for choicest. Live hogs were about steady, and prices of select were 10½c. to 11c. per lb., heavy hogs being 9½c. to 10½c. weighed off cars.

Horses.—There had been some enquiry for horses, but trade continued light. Prices were: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$300 to \$350; light draft, 1,400 to 1,500 lbs., \$225 to \$300 each; light horses, 1,000 to 1,100 lbs., \$125 to \$200 each; broken-down old animals, \$75 to \$125, and choicest saddle and carriage animals, \$350 to \$500.

Dressed Hogs.—Demand for dressed hogs continued, and abattoir-dressed, fresh-killed stock was unchanged at 15c. per lb.

Honey and Syrup.—The market was unchanged. White clover comb, 16c. to 17c. per lb.; extracted, 11½c. to 12c.; dark comb, 14c. to 15½c., and strained, 8c. to 9c. Tins of maple syrup sold at 9c. to 10c. per lb., and syrup in wood at 7c. to 8c., while maple sugar was 11c. to 12c. per lb.

Eggs.—Stock came forward freely and prices continued unchanged. Strictly fresh eggs were 29c. per dozen; selected eggs, 27c., and No. 1 candied, 23c., while No. 2 were 18c. to 19c.

Butter.—Creamery firmed up in price somewhat in the townships, though local prices showed little change. A few packages were exported week before last, this being the first export of the season. Choice creamery was quoted at 24c. to 24½c. per lb. in a wholesale way, while fine creamery were 23c. to 23½c., and second grades are as low as 22½c. Dairy butter sold at 21c. to 22c. per lb.

Cheese.—There was little change in the market for cheese. Dealers still quoted 13½c. to 13¾c. here for Western-colored, and 13c. to 13½c. for Eastern-colored. White cheese was about ½c. less than colored all round.

Grain.—The market for oats was firmer, No. 2 Western Canada being quoted at 41c. to 41½c. per bushel, ex store. No. 1 extra feed are 40½c. to 41c., and No. 1 feed, 39½c. to 40c. in car lots.

Flour.—Prices were \$5.60 per barrel for Manitoba first patents, in bags; \$5.10 for seconds, and \$4.90 for strong bakers'. Ontario winter wheat flour was \$5.50 for patents and \$5.10 for straight rollers.

Millfeed.—Bran was \$19 per ton, in bags, while shorts sold at \$21, and middlings at \$24. Mouille was steady at \$30 to \$32 per ton for pure, and \$26 to \$28 for mixed.

Hay.—The market held steady at \$13 to \$14 per ton for No. 1 pressed, carloads on track; \$12 to \$13 for No. 2 extra good, and \$10 to \$10.50 for No. 2 ordinary.

Hides.—Lamb skins and calf skins were higher. Beef hides were steady at 11½c., 12½c. and 13½c. per lb. for Nos. 3, 2 and 1, respectively. Calf skins, 16c. to 18c. per lb., respectively, for Nos. 2 and 1. Lamb skins, 40c. each, and horse hides, \$1.75 to \$2.50 each. Tallow sold at 1½c. to 3c. per lb. for rough, and 6c. to 6½c. for rendered.

Chicago.

Cattle.—Beeves, \$7.10 to \$9.10; Texas steers, \$6.75 to \$7.80; stockers and feeders, \$5.30 to \$7.70; cows and heifers, \$3.60 to \$8.40; calves, \$8.25 to \$11.25.

Hogs.—Light, \$8.90 to \$9.30; mixed, \$8.10 to \$9.25; heavy, \$7.85 to \$8.95; rough, \$7.85 to \$8.00; pigs, \$5.00 to \$8.55; bulk of sales, \$8.30 to \$3.90.

Sheep.—Native, \$1.00 to \$5.10; yearlings, \$5.25 to \$6.10; lambs, native, \$5.50 to \$7.50.

Buffalo.

Cattle.—Prime steers, \$8.85 to \$9.00; shipping, \$8.40 to \$8.75; butchers', \$7 to \$8.40; cows, \$3.75 to \$7; bulls \$95.50 to \$5.75; heifers, \$6 to \$7.75; stock heifers, \$5 to \$5.50; stockers and feeders, \$5.75 to \$7.25; fresh cows and springers, \$35 to \$85.

Veal.—\$6 and \$10.25, a few at \$10.75. Hogs.—Heavy, \$9 to \$9.20; mixed, \$9.40 to \$9.45; yorkers, \$9.65 to \$9.75; pigs, \$9.75 to \$9.80; roughs, \$8.00 to \$8.25; stags, \$7 to \$7.75; dairies, \$8.75 to \$9.70.

Sheep and Lambs.—Lambs, \$5.50 to \$7.75, a few \$7.90; yearlings, \$4.50 to \$6.50; wethers, \$5.10 to \$5.35; ewes, \$2.50 to \$4.50; sheep, mixed, \$4.75 to \$5.00.

Cheese Markets.

Woodstock, Ont., bidding 12½c.; Peterboro, Ont., 13c.; Madoc, Ont., 13 1-16c.; Brockville, Ont., 12½c.; Vankleek Hill, Ont., 12½c. to 12 13-16c.; Kingston, Ont., 12½c.; Cornwall, Ont., 12½c. to 13c.; Napanea, Ont., 12 15-16c.; Picton, Ont., 12 15-16c., 13c., 13 1-16c.; Watertown, 13½c. to 13½c.; Belleville, Ont., 12½c. to 13c.; Perth, Ont., 12½c.; Alexandria, Ont., 12½c.; London, Ont., 12½c. to 12½c.

Gossip.

Attention is called to the advertisement elsewhere in this issue of Dawson's Golden chaff seed wheat. Geo. R. Barrie, Galt, offers this at a reasonable price, bags extra.

Attention is called to the advertisement elsewhere in this issue of pedigreed Shetland ponies, the property of Hon. Miss Hicks-Beach, Coln-St.-Aldwyn, Fairfield, England. A stallion and a mare, with foal at foot, are offered, and both are quiet under saddle or in harness, each being four years old. See the advertisement.

CLYDESDALE FILLIES TO BE SOLD. Ben. Finlayson, who held an auction sale of Clydesdale fillies in London, Ont., last year, is leaving the Old Land August 16th. with another consignment, which should reach London, Ont., about August 27th. The fillies are a good lot, bigger and thicker than those brought out last year. One or two stallions of exceptional merit will be brought out. The date of the sale is September 6th. Look up Mr. Finlayson's advertisement.

CENTRAL CANADA EXHIBITION.

The free transportation of live stock from Ontario and Quebec points to the Ottawa Exhibition, has worked up an extra demand for the 1913 prize lists of the Central Canada Fair. Many who never competed at large exhibitions will make entries. The increase of the cash prizes to \$20,000 is another inducement to breeders. The live-stock display will be such a big feature of the coming Central Canada Exhibition that the directors have arranged for three live-stock parades around the race track, to take place on September 11th, 12th and 13th, and there will be special displays of championship stallions on the two latter days. The daily programme contains an unusual number of educational features of interest to farmers, and which will be under the direction of experts from Dominion and Provincial Departments of Agriculture. Visiting farmers will find the new \$100,000 implement hall, in itself, worth a trip to the fair. Exhibits of labor-saving machinery, never before shown at Ottawa, including many of this year's design, will be made by manufacturers of the United States and Canada.

Questions and Answers.

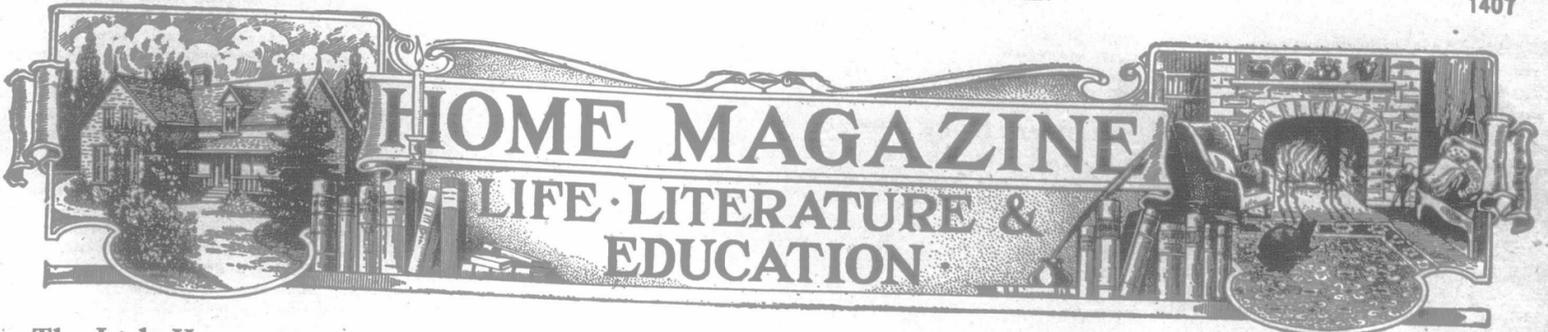
Miscellaneous.

Squabs.

As one of your readers, I would be obliged if you would inform me of a reliable book on the matter of raising Squab.

C. E. A. G.

Ans.—Squabs for Profit, by Wm. E. Rice and Wm. E. Cox. It may be had through this office at 65 cents.



The Lady Honyocker.

How Girls Take Up Claims and Make Their Own Homes on the Prairie.
By Mabel Lewis Stuart.

[When we see the multitude of able-bodied young men hanging around Broadway hunting for somebody who will give them some sort of a job and the still greater number of young women laboring away in offices or idly waiting for some one to come along and marry them, our admiration goes out to the girls of the West who have the courage and enterprise to carve out their own fortunes and make their own homes. You may find them on Wyoming ranches, in Idaho forests or on Dakota plains; independent, energetic and cheerful; good stuff out of which to build a future commonwealth].

In the western parts of North and South Dakota and in Wyoming and Montana are vast stretches of country formerly inhabited only by the occasional cattle and sheep outfit, and the attendant cowboy and herder, but now becoming thickly peopled by a variety of the genus homo known as the "Honyocker" or homesteader. It is probable that in the mind of the average Easterner the homesteader is a slouchy individual of the lonely bachelor type who smokes a stub pipe, lives on pancakes and bacon, and whose occupation of "holding down a claim" is never allowed to become irksome by the introduction of hard work. It is undoubtedly true that such individuals do exist on claims, but they do not by any means form the entire population of the claim country. On the contrary, a large percentage of these pioneers of Uncle Sam's are not even of the masculine sex. More than one-third of them are women who are taking an active part in the up-building of a new country and incidentally acquiring one hundred and sixty acres of Uncle Sam's land. So it is evident that the "typical homesteader" may as fairly be considered feminine as masculine and the "Lady Honyocker" as fair a representative of the claim country as the man. Certain it is that she is taking her part with zest and courage in the development of those vast stretches of country which until a few years or even months ago were a part of the still "uncivilized" West.

To the girls on the claim life presents as varied an aspect—although in a different way—as to the fashionable young lady in New York City. But there are features of the claim life of which the city young lady never dreams, or the result of which, if she did, would probably be the nightmare. To her the thought of being alone sixty miles from the railroad, in a 10 x 12 shanty on the wide prairie, would have only terror. Not so the girl on the claim. Alone in her little shack, a mile from the nearest neighbor, she never thinks of being afraid. Why should she be? The fact of the great distance from the railroad insures safety from tramps. Dis-

*The word "honyocker," we are informed by a reliable authority, is from the Russian and in that language signifies "a greenhorn," "one new at his business." It had been borrowed by the people who already lived in the Western country before it was thrown open for settlement, and applied facetiously to the homesteaders with the meaning perhaps of "one new at his business," therefore "a blunderer." But far from considering it a reproach, our merry enterprising young people on the homesteads claim it a title of honor and respect. The word is pronounced with both o's short, hon-yok-er. As a term of contempt, it may be curtailed as in the phrase "Only a honyock."

tance from a saloon, from drunken men. Of what else should she be afraid? Coyotes? Well, to be sure, she sometimes hears them howling around at night, but they seldom approach nearer than a few yards, and are easily frightened away by shouting or singing. Rattlesnakes? Perhaps. She sometimes hears and sees them. Should a rattler coil to attack, which he never does unless disturbed, she can easily run away, but will usually return with a stick or gun to slay the monster. No, fear has no part in the life of the girl on the claim.

The kind of work that some of these claim girls are capable of doing. Her fearlessness, her courage, and sprightly independence are winning for the pioneer girl the applause of the truest modern chivalry and have made her the subject of at least one real "claim ballad," "The Girl on the Claim," by Arthur Chapman. We cannot forbear quoting entire this little bit of western minstrelsy.

'Tis a shack in the open—the girl calls it home,
And the winds of the prairie all murmur the name—

The castle of the Lady Honyocker is usually a shack 10 x 12, 14 x 16 or perhaps 16 x 20 feet in dimensions. It is built of rough pine boards green from a lumber mill near some pine forest with which these states are dotted. Outside of the boards, black tarred paper is fastened securely with large-headed tacks. The house is then sodded up to afford greater warmth in winter and coolness in summer.

Within, the little house is just what the individual girl makes it. She has her books, pictures, magazines, guitar, and perhaps even her piano and hand-painted china. The little home may have the individuality and originality, though perhaps not the luxury, of a Bryn Mawr or Vassar girl's room. In fact, many claim holders are college girls and their collection of many colored pennants and other college trophies grace the walls of the prairie shack.

The fact that the tiny domicile must be kitchen, sitting room, dining room, library, and bedroom all in one—with usually 120 to 168 square feet of floor space—makes the disposition of furniture and supplies a serious study, the ingenuity displayed in the interior arrangement of these small dwellings would do credit to a modern house-boat or an English pleasure-caravan. A folding sanitary couch serves as bed by night and sofa by day. The stoves, number o's, are tiny affairs, but complete with four griddles and an oven. Most of the other furniture is homemade, probably dry goods boxes. A corner cupboard reaching to the ceiling, or rather the rafters, is sometimes seen. This is a very convenient affair—serving as pantry and larder, dish cupboard, linen press and storeroom.

Varying interests claim the time and attention of the homestead girl. The musician practices three hours a day on her piano, does her housework, thrills the choir, tends her poultry and garden and has some time left for her favorite pastime of target shooting.

Household duties are more or less exacting on the claim, and girls who come out with the idea that life will be one long holiday are surprised to find how busy they are. If one is to live and if the frequent visitors (one girl counted fifteen in one week) are to be properly fed, bread must be made, the cookie jar kept filled, and other important details attended to. Before the cooking can be done, there is also wood to be chopped from the huge pile before the door—it is possible for a girl to become a very good woodchopper.

The idea that the girl on the claim leads a lonely life is one not always easily disproven in the minds of anxious eastern friends. But a short stay in one of these busy claim communities would surely convince the most solicitous. Many times three or four girls take claims near together, building their shacks only a few rods apart. The writer knows one such little settlement in Butte County, South Dakota. Two sisters and their brother took up adjoining claims and the three houses are within a stone's throw of each other. Another pair of sisters, friends of the first two, took adjoining quarters and built their houses close together, and as near to the others as possible. This would be a half mile, the length of a quarter section. The houses were connected by telephone so that the two groups could communicate at any hour of the day or night.

Aside from this pleasant social life with the nearer neighbors, there is a great deal to take away any tendency to "lonesomeness" on the claim in various social organizations. In the community of Redig, Harding County, South Dakota, a little church has been started,



Carrying the Varsity Atmosphere to the Claim.
(This honyocker is a graduate of a university.)

Claim life is a decided change for most girls from the mode of living in settled parts of the country. The independence and freedom, together with the added responsibility of managing one's own affairs, are irresistibly and healthfully thrilling. Girls who come out to the claim broken down in health find they can do things which before they would have thought impossible. Some girls go fifty, even sixty or seventy miles for provisions, and many of them sod up their own shacks for the winter. If you wish to form an idea of what this little exercise means, go out to a piece of ground just freshly turned over with the breaking plow, take a spade, cut a piece of the sod about eighteen inches long and carry it a short distance. Remember that it makes hundreds of such pieces to sod up a shack, and you will understand

She has driven her stakes and has furrowed the loam,
And high is the head of the girl on the claim.
She fears not the night, nor the storm in its wrath—
She is proud of her day when the sun sets like flame;
No prison-like shop casts its shades o'er her path—
There is hope in the face of the girl on the claim.
She is winning, each day, toward the coveted prize—
She is beating adversity's heart-breaking game;
There is courage sublime shining out of her eyes—
Hats 'off to the girl who has staked out a claim!



The Musician.

(Sod or no sod, there's really a piano in this shack.)

meeting at first in the shacks. As the interest grew, a neat and commodious building was put up. During the winter a series of socials, parties and literary and musical entertainments kept the community humming. In the same settlement a young people's branch of the Woman's Christian Temperance Union was organized, and held several oratorical contests, receptions and other social affairs. Somerset parties were also very much the rage in this particular settlement, while at the neighboring "town" (store and dance hall) the more gaily inclined found a chance to cultivate the "light fantastic."

It is not to be thought that the talents of the brilliant girl are wasted or buried in a napkin during her residence on the claim. Opportunities for social service are nowhere greater than in the claim country of the West. One does not need to live in Hull House or in a Frances Willard settlement in order to serve humanity. In a certain community called "Harmony Settlement" of western South Dakota some young women had come out amid the sighs and lamentations of friends that they were going "out West to that awful uncivilized claim country." But the young women themselves viewed the situation in an entirely different light. In the midst of the most primitive pioneer life—not without privation—a phrase often upon their lips was "We'll make our civilization." The west needs forming as much as the city needs reforming. There are children brought up on the ranges of South Dakota who do not know that they live in South Dakota or the United States of America! Surely the Honyocker school teacher who rides sixteen miles to and from her school each day may feel that she is doing a work as important as ever Mamie Rose did for Owen Kildare.

What think ye? Is it harder to ride in a street car in New York City to a mission in the slums to teach a Sunday School class of street gamins, or to walk seven miles in the burning sun, over cactus and sage brush and through deep draws, to take part in a temperance meeting in the West?

We are personally acquainted with one young woman who supplied two pulpits on Sunday, driving several miles between appointments. A gifted elocutionist who had delighted audiences in many states invited "all children under ninety-nine years of age" to a "safe and sane Fourth" providing with a friend refreshment and entertainment. A trained nurse who commanded a large salary in the city kept what was almost in reality a free dispensary, so lavishly did she give from her medicine chest in time of sickness. As healing as the medicine was the outpouring of sympathy from her full heart for her fellow creatures. Many a mile has she walked in the heat or cold to minister to a suffering neighbor, and it is probable that many a life has been saved by her efficient aid. The Bible class teacher in the Sunday School at Redig had expected to become a foreign missionary. But she took a claim and became a home missionary, delighting us Sunday after Sunday with her vivacious presentation of Jewish history.

Our musician studied in a Chicago conservatory and was offered a college position, but she too came west and took up land. She also took hold of the music in the little new church, directing the choir, training the children, and making the old reed instrument thunder and peal like a grand pipe organ.

Instances might be multiplied of the ennobling work of our young women in the new West, and of their fine courage and determination. Surely they are to be congratulated upon the opportunity thus wisely seized upon—to become stable factors in the economic life of the nation—and upon their adaptability, energy and perseverance in triumphing over the trying conditions of pioneer life. But no less is our Uncle Samuel to be congratulated that his pioneer country has so large a representation of that class of true nobility and sterling worth, the "Lady Honyocker."

Harding, South Dakota.

[The above has been published by kind permission of The Independent (New York), in which the article first appeared. Those who are interested will find, in

Ingle Nook of this issue, some information in regard to women farmers in Canada].

Letters from Abroad.

THE PALIO OF SIENA.

Siena, July 3, 1913.

My dear Jean,—As you see by the date, I am in Siena again. I could not resist coming back to see the Palio when I was so near by. Harmony did

mildly agitated over it, although he is so scornfully condemnatory of sporting enthusiasm in general. Incidentally, I may say that Siena is becoming quite a popular summer resort for English and Americans. Being a hill-town, it is delightfully cool and breezy when the valley towns are sweltering.

But I must tell you about the Palio, which the Guide Book defines dryly as a local horse race. It is much more than that.

It has a history which goes back to the Dark Ages, and its origin is distinctly religious in character. Medieval festivals of this kind were held on Saints' Days. In Siena the Palio of July 2nd is held on the day of the Visitation of the Virgin; the Palio of August 16th, on the day of the Assumption of the Virgin. The banner given for a prize has also a religious significance, being invariably ornamented with a picture of the Madonna.

The history of the palio is so interwoven with the Contrade of Siena, that I'll have to tell you about the Contrade before you can understand the intensity of the local fever which rages in Siena just at this time.

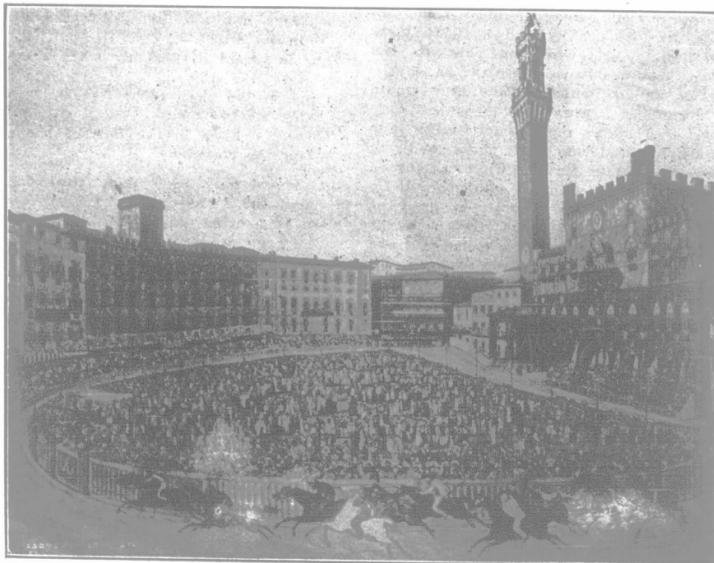
There are seventeen Contrade. The origin of the division is conjectural, but it is supposed by historians to have been military. Each Contrade bears the name of an animal, such as tortoise, goose, eagle, wolf. Each Contrade has special emblems, colors, banners, and a peculiar medieval costume. Each Contrade has a jockey, a trumpeter, a drummer, a standard bearer, and a beautiful banner. Each has a special church in its own district.

The Palio has been given in its present form for over two hundred years, but before that they had bull fights and donkey races. It is given on the Piazza del Campo, where all the chief events in the history of Siena have taken place. This piazza is of a most unusual shape, being semicircular and concave. It has been compared to a sea-shell in color and shape, and also to spread-out fan, with the handle low and the rim tipped up. It is completely paved with brick and is ringed about with magnificent old fourteenth century palaces of tinted stone, soft pinks and yellows and browns. In front of these palaces tiers of seats are



One of the Honyockers.

not come with me because she hates crowds, and she had an idea the race-course would look like a river of blood strewn with smashed jockeys and disabled horses. Of course, there were some accidents, but I think she made a great mistake in not coming, for the Palio was certainly a most entertaining, exciting and unique spectacle. As the learned Harvard professor, who sat next to me, remarked, "I don't suppose there is anything like it anywhere else in the world."



The Palio, Siena.

I do wish, Jean, I could make you see it as I did, but mere words cannot interpret so much life and movement and color. I cannot even send you any good pictures, as the Palio is run in the evening, when the light is too poor for snap-shots. The photograph I enclose was taken in the morning at the last trial race. You really must come to Siena some time and see the Palio for yourself. I think even Jack would get

erected for visitors, but the Siense congregate in the enclosed area in the center. There are no seats there and the packing capacity is unlimited. During the race, the people there are jammed so closely together you couldn't wedge a tooth-pick between them.

Some days before the Palio, Siena wakes from its accustomed lethargy and the excitement begins. Cart-loads of sand are deposited on the piazza and a

track for the race laid on the outer margin. A number of horses are tested and ten of about equal speed selected. These horses are distributed by lot, the solemn affair being conducted in the Municipal Palace. After this there are six "Prove" (trial races) on the Piazza, one every morning at nine-thirty and one every evening at seven-thirty. At each of these "Prove" the palace is thronged by an eager, excited, prophetic mass of people. The course is very difficult and dangerous, being short, uneven, and having a sharp corner which proves the Waterloo of a great many hopes. It is at this point most of the accidents occur, and sometimes horses and men are badly smashed. The horses are ridden bareback and each jockey has a heavy whip, with which he belabors the other horses—but not his own.

The day of the Palio began with a great pealing of church bells at a very early hour. The faithful were called to an open-air Mass, in front of the Municipal Palace, at five a.m. I had intended to go to this for photographic reasons, but at that hour my fervour was not as great as my sleepiness, so I missed the first event of the day. But I was in my seat for the second event—the last trial race in the morning. All the rest of the day was filled with excitement compared with which an Agricultural Fair in Canada is as nothing.

At two o'clock the rolling of the drums is heard from every part of the city, and each Contrada marches in full regalia to the Duomo—that being the time-honored custom. After this they disperse and return and prepare for the pageant.

At four-thirty the ten horses competing in the race are taken to church to be blessed—each horse to the church of the Contrada it represents. There is a special service for this important occasion. I was very anxious to see this part of the show, and was taken by some Italian friends to the Church of the Eagle Contrada, which was at the foot of a very steep hill. It was a very unique performance. A priest in full ecclesiastical vestments conducted the service. The horse, magnificently caparisoned but extremely bewildered and decidedly balky, was coaxed and pulled into the sacred edifice, and led up to the altar by a knight in shining armour and expensive plumes. The jockey stood at the horse's head. The men of the Contrada, costumed in yellow tights and slashed doublets, formed in two lines down the centre aisle. The service was necessarily brief, but the horse behaved quite properly until the priest sprayed its nose with holy water out of something he held in his hand, which looked like a baby's rattle. This agitated the animal to such an extent, that it displayed a disposition to bolt into the side-seats, but was calmed down by its attendants and received the benediction in quietness, after which it took six men to get it turned around and out of the church again.

After this there is a general rush for the Piazza del Campo, streams of people pouring into it from every street and lane and archway, until every available sight-seeing space is filled. The adjacent roofs are peopled with spectators. The surrounding palaces are as brilliant as flowers—every window and balcony gaily decorated with tapestries and hangings, and filled with people.

At six o'clock a gun is fired, and immediately the "Carabinieri" in their red cockades issue forth from the Municipal Palace and clear the course. This they do by walking completely around it—every thing being pushed ahead of them like sweepings.

Then the great bell of the Nangia Tower, which is only rung on great occasions, begins to peal, and the pageant enters, headed by a band of trumpeters, playing the Palio march.

Following this come the ten competing Contrade, each one composed of a captain, five pages, a drummer, the jockey on horseback, a man leading the horse which is to race, and the "Alfieri" (banner carriers).

The costumes are magnificent—nothing faked up for show—no glazed cotton masquerading for silk, nor gilt paper pretending it is gold cloth. No! These costumes are the real thing and worth a mint of money.

The great feature of this picturesque

medieval procession is the exhibition of banner-throwing by the Alfieri. There are two with each division, each one carrying a beautiful silken banner of about five feet square, on which are the emblems and colors of the Contrada. When the drums begin to beat, they begin their movements. The banners are kept constantly fluttering in a series of complicated movements, during which the Alfieri wind them round their necks, pass them under their legs, jump over them, and finally throw them in the air thirty feet high and catch them as they fall. Just imagine the entire course all a-flutter with these gorgeous-hued banners! It was like a delirious kaleidoscope. And imagine the noise—ten drums going, at once, and the Mangia bell pealing constantly, and the Oh's! and Ah's! of forty thousand spectators. It was tremendously exciting. It was as if a medieval picture in the Art Gallery had suddenly come to life. As each Contrada completes the circuit, they take seats in a stand in front of the Municipal Palace, forming a wonderful bit of color when they are all massed together.

Then comes the race. At the sound of a gun, the jockeys on their horses appear and move to the starting point. Three times round the ring they go. Now the Wolf is ahead, now the Ram is ahead, now the Porcupine is catching up, now it is neck-and-neck, now Porcupine is leading! Second round—Porcupine still ahead—the people are yelling like savages! Third round—A jockey is pitched from his horse—but, no matter—Porcupine is still ahead and nearing the finish, and—Wins! We of the Pension Flora rose as one man and joined in a joyful yell—for we lived in the Contrada of the Porcupine, and were full of local pride—and yelling is very contagious. The Harvard professor, who teaches something awfully dry like Latin or Hebrew, was so stirred up over the race that his remarks were perfectly unintelligible—even to his wife.

A very practical English woman asked him if he thought the race was sold. "Sold!" he said, glancing at her. "Well, if it was sold, I don't want to know it."

The scene that followed the race was indescribable. Everything seemed to be happening everywhere at once. People swarmed around the winning jockey and horse like flies on a lump of sugar. He was kissed and hugged, and the horse shared the honors. A regular osculatory riot was in progress, when suddenly it changed to a fight. A rival jockey had wedged himself in and attacked the winner. The people joined in and the Carabinieri had to forcibly tear the combatants apart, and lead the victor from the field to a place of safety. Sometimes the jockey who wins has to be kept hidden for a week until the feeling against him dies down.

In the evening we went down to the Contrada church to see the show. The street was ablaze with torches and the church bell was ringing like mad. A grand pow-wow was going on, with the jockey as the center of interest. We went into the church and saw the prize Palio, which was exhibited in front of the altar. In an adjoining room the walls were hung with the prize pennants of other years. There were thirty-one in all, the oldest one going back to an early date in sixteen hundred.

We were invited up-stairs to the banquet and were presented to the Hero of the Hour, but did not make the acquaintance of the horse.

After the August Palio, the banquet takes place in the street, and on that occasion the winning horse occupies the place of honor at the head of the table, where it is provided with the most delectable of equine dainties.

In the history of the Palio there is just one instance of the horse being ridden by a girl. It happened in 1851, and the girl was a peasant named Virginia. She did not win the race, but created a great sensation, and had numerous offers of marriage afterwards from enamoured young men. Even the Governor was smitten with her charms and gave her a beautiful horse as a present, remarking that, although she could not manage old race-horses, she could break in unruly colts.

Do try and get over here in time for the August Palio. I'd like to go again, but I would particularly like to see Jack

stirred up to the yelling point, and I don't believe he could escape catching the fever if he were here.

LAURA.

Hope's Quiet Hour.

Working in the Dark.

Every man's work shall be made manifest, for the day shall declare it. . . . Therefore, judge nothing before the time, until the Lord come. . . . And then shall every man have praise of God.—1 Cor. III. 13: IV. 5.

"Be but faithful, that is all; Go right in, and close behind thee There shall follow still and find thee Help, sure help."

Several years ago a small gang of navvies, working in an English coal mine,

They were working in the dark. If God had held out welcoming hands to them, saying: "Well done, good and faithful servants!" and had exchanged their grimy clothes for the white robes of Paradise, it might not have surprised them much. But that the world should call them "heroic" when they had only done their ordinary work—under extraordinary conditions, it is true—would probably surprise them greatly.

We are all, in one sense, working in the dark. We do not know what the outcome of our labors may be, so we "may as well go on with our bit while we can," leaving results in God's hands. There are men toiling out of sight every day, forgotten by the world, even though their patient faithfulness is carrying great enterprises. I once went down staircase after staircase to the engine-room of an ocean liner. Although the ship was in port, at Montreal, the place was stifling with the heat of the furnaces and the cramped air space. The men's faces were blackened, and they were naked to the waist; but they were courteous to the visitors, and their

you feel that your work is unnoticed, and will leave no mark in the world? Have you high ideals and ambitions which seem to have no chance of fulfillment? A woman once said to me, when I was trying to make her see the evil of indulging depression, "Oh, it is easy for you to be cheerful, because you have so many interests and are so much before the world." Certainly, it is easier to fight depression when one's life is crowded with interests; but everyone can find interests, and everyone's life is interesting—interesting to himself and God.

On the stage the star player may have the part of a servant, and a player of less importance may play the king or millionaire. The interest of the spectators does not depend on the part so much as the actor. A fine actor can make any part glow with color. So it is in life. If you are offering your service to God, it is ideal and beautiful; if you are living for self, your life is low and ugly. Our Master was as kindly when He knelt with basin and towel before the traitor Judas, washing his feet and loving him in spite of known treachery, as when He rode in state through the city gates while the people threw their robes as a carpet before Him, and shouted their praises. The first act seems more kindly than the second, for it was more difficult to do, and was the expression of more beautiful love.

Have you a chance to do beautiful things that only God is likely to notice? Perhaps you are called to work faithfully for someone who is treating you unkindly. Then remember you are given the opportunity of copying the Master in one of His noblest acts—His kindly service to a man who was at that moment planning treachery against Him.

To-day a picture post-card came to me to give to a little sick child. The sender desires to remain unknown, but God knows the loving thought which promoted the little act of kindness. There are many kindnesses done in the dark, sweet secrets between aspiring souls and their God. The day of the Lord will light up with radiance these forgotten deeds of love—forgotten by all but God.

Therefore, it is wise to "judge nothing before the time, until the Lord come," as our text says. We are so apt to judge by outside appearance. One person is clever, beautiful or rich; and is supposed to be very fortunate. Another is slow, plain or poor; and is not thought of much consequence. So the rich man in the parable seemed to be more fortunate and happier than the sick beggar at his gate. But God has no favored children. He loves them all, and desires the eternal good of each. The rich man had great opportunities of helping his fellows, but wasted them in profitless self-seeking. The beggar was too helpless for active work, but his sufferings were accepted trustfully, and his secret faith and patience won the praise of God. His name—Lazarus—declares in one word his character. It means "God helpeth"; and that is the secret of the sequel, shown us by the brief lifting of the veil. Lazarus was working in the dark; only God could see his daily victories over the temptation to be impatient and complaining, his faith in the Divine Helper, his hope for the future blessedness, which the rich man failed to get, because he was not interested in it.

If the rich man and the beggar had been alike in their high ambition, the riches of the one and the sorrow of the other would have been ladders to heaven. Then might the poet's words have been fulfilled:

"That high-born child and the beggar Passed homewards side by side, For the ways of men are narrow, But the gates of Heaven are wide."

An English cathedral, which has stood more than nine hundred years, would have sunk in a marsh if a bed of concrete had not been lately built between its foundations and the insecure earth below. This was done chiefly by a diver, who worked six hours a day under water. "For five and a half years he burrowed under the cathedral, working in the dark, the water being too discolored to allow the use of an electric light. No one could supervise him, but no portion of the work was scamped." That was part of the report of the



The Banner Carrier of the Wolf Contrada.

were shut into a small space by a cave-in. For twenty-three hours they were entombed and were rescued just in time, almost exhausted for want of pure air. They told a story of quiet heroism, which is shining with romance. When the rock fell, they were at first almost frantic with fear. Then one of their number said: "Well, chaps, we shall never get out of this alive, so we may as well go on with our bit while we can." So they set to work in their living tomb as steadily and quietly as if they had been working under ordinary conditions. They all went on with their "bit" until they were too exhausted to work. They did not expect to be alive when pay-day came round. They were not working for pay, but from a sense of duty. The work their hands found to do was done with their might—and probably the work saved them from despair or insanity. They did not know they were heroes—how could rough, ignorant coal miners in such a case know that the world would treasure their deed as fine and beautiful?

thoughts were not crowded and confined. They could mount swiftly through the clear air to the King on High. Think of the great multitude of stokers, working in the dark day after day and night after night, doing their best out of sight, and helping more famous people on their way. Nearly twenty-five years ago a steamship was in a narrow channel, beset by reefs and sand-banks, when a great tempest tossed her to and fro. It was difficult to steer the ship safely, but it would have been impossible except for the men below. The stokers stuck to their posts, although those nearest the furnace doors were in danger of being tossed into the fire, and their comrades had to grip them by the waistbelt with one hand, holding to a ring-bolt with the other. They could not see where the ship was going. At any moment she might crash into the rocks; but steering was the business of other men, and they had enough to do attending to their own "bit." For sixteen hours the danger lasted, and the victory was largely due to the stokers. Are you working in the dark? Do

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preservation of the cathedral which was sent to King George.

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No one need work in the dark, for God's presence will light up any life with joy.

"That man is praying who doth press with might

Out of his darkness into God's own light."

DORA FARNCOMB.

The Children of the Forest

A TRUE STORY OF A TEACHER'S EXPERIENCE.

By M. Blanche Boyd.

Chapter 15.

REMINISCENCES.

Our talks were not always religious, for Mr. McDonald and I would talk politics, and about the possibilities of the country, etc., and it was so interesting.

Election time had come around, and he was asked to choose between voting for a well-to-do drunken doctor and a poor, honest farmer. I tried to urge him to vote for the latter, especially as he was a Conservative. He laughingly asked me if I would have him turn traitor and vote against the Liberals he had always sided with. "Well," I replied. "If you won't vote Conservative, the next best thing you can do is not to vote at all, but vote according to the dictates of your conscience." "Conscience!" he answered, "men vote for the man who promises them the most, and can be bribed by a glass of whiskey here; they don't care who gets in." He, however, did not vote at all, although he teased me for sometime about it, having had his tea early and stayed at the barn for a long time to make me think he had gone to vote.

The Boer question was a sore subject with him. "Just look," he said, "in the paper it speaks of England offering the Boers a home in Canada; 160 acres free, provisions for the first year, farm implements to use, and several years livelihood without taxes, and what do they give their own flesh and blood? Why they give us 200 acres of land free, but claim all the pine of the land—the only wood that is worth anything on the place. They give us no provisions nor implements, and it takes us years to cultivate the land, for we have to fell the trees, cut them up and burn them, and it is many years before we can get rid of the stumps. If we want to earn any money we must go to the shanties or mines in the winter, then our farm has to be left. If we stay at home to farm no money comes in, as we get no money for our grain, butter, eggs or meat, but must trade everything at the village store. There I have got to pay \$12.50 a year tax for having 20 acres cleared. Before we can get a 'deed' we have to clear so many acres of land in a given time. We have to cut down the pine in our woods for the Government and leave our own work, and we get so poor that it is impossible for us to leave the country.

"The country is not organized; men take law into their own hands and settle disputes as they wish,—generally by fighting it out. If the government finds out that we shoot any animal to get food for our families, out of season, we are fined, while strangers are allowed to come during hunting season and kill all our animals off while we settlers are working. They try to make us raise \$125 to pay a teacher and to raise half the salary required for a minister, but we are too poor to do it, as some now are seized and sold to pay the teacher's salary. Some of the neighbors don't grow food enough to feed their horses and cattle, and have to turn the poor beasts out in the forest in the dead of winter to hunt for a living, where they sometimes die."

If there were any people enterprising enough to start a mine, he said that there were coal and silver mines in the surrounding country, and, having been a miner, he ought to know.

In regard to my questions about the fertility of the land, he said that the land consisted of sand and sandy loam

soil, in which wheat and potato growth is good, but that it really was a great barley-producing country. The wheat crop averaged about 25 or 30 bushels to the acre. Small vegetables could be grown, but the land was not cleared sufficiently for great crops, and the climate was too changeable. The temperature ranged from 45 below zero to 120 above. The country was subject to frequent rainfalls, heavy snow-storms and severe frosts, which made it difficult to grow fruit or vegetables, as the summer was so short. Being woody, the land was naturally fertile and produced a quantity of raspberries, blueberries, cranberries (low bush and high bush), strawberries, gooseberries to a small extent, skunk currants and winter-green berries, but the bears lived chiefly on these.

As it is a naturally cold climate only two kinds of nuts are found and they never amount to much, viz., the hazel and beech nuts. (For the benefit of those who do not know, I shall tell you that hazel nuts grow on bushes.) The trees chiefly consist of evergreens, such as pine, tamarack, spruce, cedar, balsam, but others such as the soft maple, black oak, elm, beech, birch, poplar, cherry and hawthorn are also to be found, and these different kinds are used for various purposes, such as pine for the Government and fuel (pine that the Government will not accept for lumber), balsam brush for litters and shanty "bunks" for bedding, cedar blocks for shingles, and birch for making "jumpers."

The flowers are much the same as those found in "civilization," "at the front" or "down south" as we called Southern Ontario,—lady's slippers, adders' tongues, red and white lilies, white, yellow and blue violets, mayflowers as well as many beautiful vines and ferns.

The National Park was only four miles east of us, and it was here that all the wild animals were protected and a heavy fine imposed upon trespassers. In the forest are to be found not only the fierce and wary wolf, but bears, lynx, wild cats and wolverines (the last three mentioned being somewhat similar), moose, deer, otters, beavers, (Mr. Smith gave me a straight stick which he found at the beaver dam one night as a keep-sake. This was all peeled by the beavers and cut by them; the mark made by their teeth in stripping the bark off forms small lines or circles), martens, weasels, minks, gray, black and red foxes, ground-hogs, musk-rats, skunks, rabbits, chipmunks, porcupines (the poor dogs used to come home with their mouths all torn and bleeding, being full of quills, which it is very difficult to extract) and flying squirrels. After going a mile and a half from where we lived, one might travel over a hundred miles East, and never come to a clearing.

A Frenchman had shot a fawn but not killed it, so he put a bell around its neck and it wandered all over the country and came up to our house one morning where we managed to get it near enough to pet, but as soon as we moved it scampered off. Having heard about the kinds of animals in the country, I naturally wished to know something about the way in which the trappers and hunters succeeded in capturing these animals. The bear trap is similar to our rat traps, I mean those with a round plate of iron in the centre upon which bait is placed, and two half circles of iron edged with sharp cruel teeth, which snap together when the plate is moved. A long strong chain is attached to a neighboring tree. This is a very cruel method, as the poor brute is just caught by one paw, and sometimes is in agony for hours until the hunter puts an end to its sufferings. Smaller traps of this description are used to catch mink and other small animals, but, as is often the case, the poor cats and dogs get into these traps instead, and many are lamed and have to be killed. Both of our big cats had shared this fate, which so enraged the boys that they stole the trap that was set at the dam, and kept it for months.

In order to capture the deer they get a large pail of very salty water, and pour it upon a bare spot on the ground in the clearing. The deer will scent this and come to lick up the salt. This one will bring another, and it is no un-

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common sight to see twenty of them there at a time. The hidden hunters then shoot their unsuspecting victims. To catch moose they generally have to wait until they come out in the evening to drink at the creek, and in this way the deer are often obtained too.

The plan laid to kill foxes was rather unique. These creatures, as a rule, come out on a bright moonlight night, so, on one occasion, Mr. McDonald told me, one of the Frenchmen who had a violin, went to the edge of the woods just across the creek from our house and began to play, while some settlers were hidden behind the shrubbery. After playing some time the foxes, attracted by the music, came in quite large numbers, and were an easy prey to the hunters.

When attacked by wild animals, the cows form a circle around the young calves and fight desperately. It was no uncommon thing for them to come home with their flesh torn, which showed how fierce the fight had been.

When the creek is flooded in spring the fish are very numerous, and the settlers take the advantage, before river-driving commences, to catch a large quantity of them. Mr. McDonald and the boys started after dinner and walked about three miles to see what they could get in this way, and succeeded in landing ten dozen which they brought home, besides a quantity that they caught for others or gave away. Four men left the spot with a wagon load of these fish. So black was the water with them, that the children would wade in barefooted and snatch the fish with their hands. The business of cleaning and salting the fish down may be better imagined that described, and if fish are good for the brain, we certainly ought to be very learned. Unlike the average fisherman these settlers used to take an axe and behead all the fish, and in this

Grand Trunk Railway System

FARM LABORERS' EXCURSIONS

\$10.00 to Winnipeg
VIA CHICAGO AND DULUTH
Plus half-cent per mile from Winnipeg to destination, but not beyond Macleod, Calgary or Edmonton.

RETURNING
\$18.00 to Winnipeg, plus half-cent per mile from points east of Macleod, Calgary or Edmonton, to Winnipeg.

Aug. 18—From all stations east of Kingston in Ontario.
Aug. 22—From all stations Toronto to Sarnia Tunnel inclusive, via Stratford, and South thereof in Ontario.
Aug. 25—From all stations North of, but not including Main Line Toronto to Sarnia Tunnel, via Stratford, all stations Toronto and North and East of Toronto to Kingston.
Sept. 3—From all stations Toronto and East, and East of Orillia and Scotia Jct.
Sept. 5—From all stations Toronto to North Bay inclusive and West thereof in Ontario.

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Full particulars at all Grand Trunk Ticket Offices, or write C. E. HORNING, D. P. A., G. T. Ry., Toronto, Ont.

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August 15, 16, 17, 18 and 19
Low Round Trip Rates to
NEW LONDON, CONN.
PORTLAND, ME.
OLD ORCHARD, ME.
KENNEBUNKPORT, ME.
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ST. JOHN, N. B.
HALIFAX, N. S.
CHARLOTTETOWN, P.E.I.
SYDNEY, N. S.

Proportionate low rates to other points.
Return Limit, September 4th, 1913.

Homeseekers' Excursions

Each Tuesday until
October 28th inclusive

Winnipeg and Return	-	\$35.00
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FULL PARTICULARS FROM ANY GRAND TRUNK AGENT.

way the poor things did not suffer by lying on the warm ground with a blazing sun beating upon them.

The government offered the settlers twenty-five and fifteen dollars for bear and wolf skins, but only twenty-five cents for the skins of smaller animals; the consequence was they seldom troubled to shoot the wild animals unless molested by them, but contented

themselves with the animals which were good for food.

Mr. McDonald kindly let me shoot out of his rifle one evening just as he was about to start on a hunting expedition, for this was the time they generally chose, although many of them spent Sunday in this way. The rifle was a very fine one, but very heavy. It gave me rather a wrench or "kick" as it is

called, but I was compensated by the fact that the mark was hit,—a certain spot on a distant stump. I always enjoyed playing games where aiming was to be done, and, as a child, liked few games better than shooting with a bow and arrow.

Mr. McDonald was going to build a barn, so for this purpose he cut down some trees, peeled the bark off and split them with the axe to form four sides, and then at each end cut a chip at either side to form an opening in which another log would fit, and it was wonderful how quickly he did it and how well one log fitted into the other, so that in the building not one nail was used in the logs. The log houses are made the same, and also tables. For chipping, the adze was used.

For the shingles he brought home some cedar trees and cut them in lengths of about a foot or more, cut each block into four parts, and with a "frow" and a birch mallet (made of a block of birch so cut as to form a handle and hammer) he split the shingles from the cedar blocks. The reason he used birch mallets was because they were very hard, and would stand so much hammering before wearing away. When several hundred shingles had thus been cut, he put them on his "horse", which instrument has been before mentioned when used in the tanning process, and with a draw-knife he made the surface smooth. He kindly let me make one or two shingles.

By means of levers the huge logs for the barn were raised, and it was not long before the granary was completed.

In making log shanties, for the roof they split hollow logs down the centre and place them on the roof so that they link into each other, which allows the rain to run down in these little grooves. The sides are jointed at the top by one-half log placed with the hol-

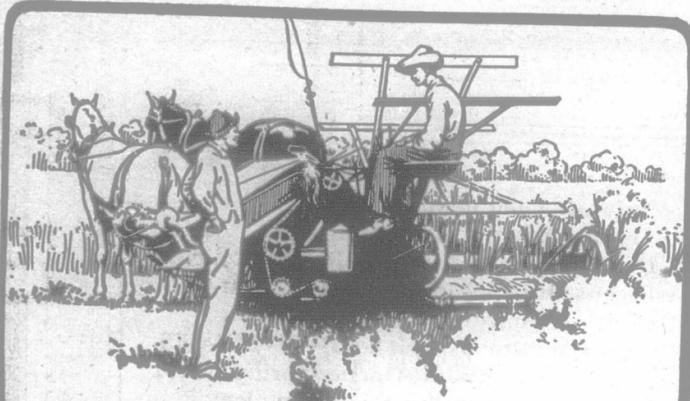


Note the Color of your flour—
And the Bread it makes for you.
Delicately creamy is FIVE ROSES flour.
Because it is not bleached, don't you see.
Clear—Immaculate—Desirable.
A pure Manitoba wheat flour—FIVE ROSES.
And the healthy sun-ripened spring wheat berries are naturally of a golden glow.
And the meaty heart of the polished kernels is creamy.
Milled from this cream, FIVE ROSES is delicately "creamy."
The only natural flour from Manitoba's prime wheat Which gets whiter and whiter as you knead it.
And your bread is most appetizing, unusually attractive in appearance.
Looks good.
And is good.
Bake this purest unbleached flour.

Five Roses Flour

Not Bleached  Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED MONTREAL



Yes, Sir!

You take no chances when you
USE HOMESTEAD FERTILIZERS

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

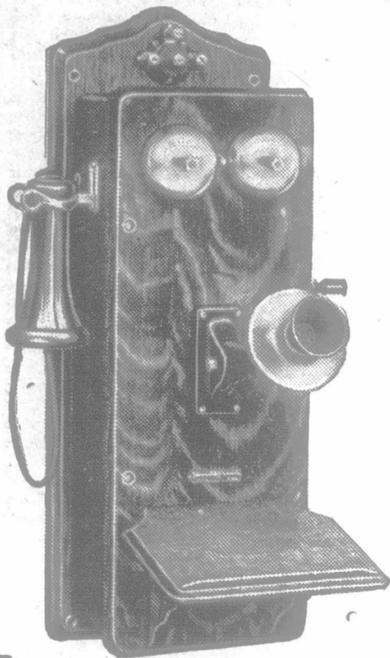
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If all the farmers knew the merits of Homestead Fertilizers as they ought to know them, we could not make enough to supply the demand. Let us have your order this fall. If we have no agent near you, we will sell direct, bag, ton or carload, and will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

The American Agricultural Chemical Co.
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Mr. George R. Webb's Canadian Patents,
No. 123363, No. 124537, No. 131145.

low side down. The openings between the walls are filled with clay.

In fact there is little that these people cannot do, and it is marvellous how clever they are. Mrs. McDonald was a very capable woman, too, and at one time had carded her own wool, spun and woven it, and then made their clothes. She was very anxious to teach me how to make men's clothing, saying that I never knew when the knowledge might come in handy and knowledge was easily learned, but not desiring to be a tailress I did not learn much of the art. In the harvest field she was as good as a man, and had it not been for her, the farm would not have been what it became. Her boys were brought up to work too. They were splendid little workers, especially the younger of the two, and no matter how hard he had worked during the day he never once complained, but was always ready to play base-ball in the evening after the work was done, or play games when the lamp was lighted. They always got me to make their balls for them, and we four used to have some very nice games. There was little that that boy could not do,—he always wanted to try everything and kept at it until he succeeded. He was so eager to have apples that he planted a seed in an old tin can, and had it growing in the house beside another can of corn; both were about a foot and a half high when I last saw them. His chief delight was to go on the raft, and in the quiet summer evenings we could hear him singing the songs he learned at school, and as the sound came floating across the water it sounded so nice, for he was too shy to sing at school, and apologized for not trying on the plea that he would frighten us all if he tried.

He was a most interesting child. Occasionally his mother would buy a small bag of apples and this is how he got the seeds to sow his tree, which plant he had in the east window.

Henry's eyes fairly danced with mischief, and he never could tell a lie without laughing. He heard me say one day that one thing I disliked about mice was the feel of them, whereupon the young rogue captured a mouse and rubbed it across my hand as I was writing. I knew at once what it was, but, of course, he denied the charge laid against him for some time. But as a former teacher told me, you get a brotherly kindness feeling for mice and "such-like" creatures who are your constant companions and room-mates. (At times one looked as though he had small-pox, so bitten would he be from the insects abounding—black flies being the worst.) It being a sandy country, fleas were abundant.

Henry's greatest wish was to be a sailor, so that he could travel to all parts of the world to see how people in other countries lived.

(To be continued.)

The Ingle Nook.

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

Dear Ingle Nook Friends,—I am going to interrupt our educational series, which is nearly completed, once more, to make way for the following—part of a most delightful letter which I received recently from a friend who has been visiting in Victoria, B. C. All the time that I was reading the letter I kept saying to myself, "How my 'paper people' would enjoy this!" and so you may imagine how pleased I have been that permission has been given me to use as much as I like of it.

In another part of this issue you will read something of what the girl and women "honyockers" are doing in parts of the United States. It may interest you still more to know that a farming project for educated women, who have been thrown on their own resources, is even now in process of being carried out in the Okanagan Valley, B. C.—Will it not seem strange if to women, after all, will come the honor of helping, per-

haps, more than any other agency to remove from this old world forever the sort of stigma which has, for all too long, hung over manual labor? If women, and educated women at that, find honor and pleasure in doing manual (plus mental, of course) work, why should men shrink from it? Will it not be grand if their efforts should result in making people everywhere realize that the kind of work one does does not matter in the least,—that what we ourselves are is the only thing worth thinking about?

Really, it seems to me sometimes that women are like the Chinese: Both have hibernated, more or less, since the beginning of time, but now that they are thoroughly awake, there is no knowing where they will end.

—Now, don't think of the "militants" right off!—That spasm doesn't count. It is a symptom, maybe, but a passing one; just a fever spot that will fade away when women are recognized, as they will be some day, as human beings rather than as "only women."

But I know you are anxious to get to the letter, so good-bye for this time.

JUNIA.

Victoria, B. C., July 10, 1913.

My Dear,—It is to be hoped that you will not "take a fit" at the sight of my writing, and the heading to this letter. I have been in Victoria for a month now, and every day I stay I love it more than the last.

I came with Mrs. J. We have a cottage out on the Gorge, which is an inlet running in from the sea for about five miles, and beautifully wooded on both sides after the city limits. We come out from the city either by motor boat or electric cars, and have a lovely park almost at our door. After Calgary you can understand how much that means to me. The prairie has a beauty all its own, I admit, but give me the wooded country every time. To-day all my thoughts were with you and Miss P. I wished you could both be with me, as I knew you would both be very much interested in what I saw.

An English woman journalist, whom I met in Calgary, hunted me up here and asked me to come out and see her at a farming school for girls, which a woman has started about seven miles from the city. Of course, I was only too glad to go, as I knew the drive was sure to be lovely (all drives around here are) and I thought I might find something that would interest you. How I wish you could have been with me! I know you would have enjoyed every minute of it.

I left town at ten o'clock, and, as it looked rather cloudy, had the whole motor-stage to myself except the driver, who was rather a quaint old sort, who kept his eye steadily on the road ahead of him, and made comments on life in general and Victoria and its surroundings in particular.

Every bit of the road is beautiful, running first through lovely suburban residences, each surrounded by gardens filled with roses and all kinds of dear old-fashioned flowers, which took me back to old home days. After the residences came fruit and vegetable farms, and then we went through the heart of a beautiful wood. I had begun to wonder where it would all end, when we suddenly rounded a corner, and, on one side, lay lovely Cordova Bay, dim and grey in the mist which lay over it; on the other, a thickly wooded hill. I had been told to ask the driver to let me off at the Haliburton trail, and in a few minutes he stopped and said, "Here you are, lady, just follow the trail up that hill; keep on climbing until you get to a house."

There before me, lay a narrow trail up a steep hill so thickly wooded that it would have been impassable except for the trail. I shall never forget the climb alone in the silence of the deep woods. Every step brought something beautiful to view, wild flowers thick at your feet, trailing vines, towering trees and beautiful (almost tropical) growth all around you. The bracken grows thick in all the woods around here and as high as a tall man, and the scent from it is lovely.

Here and there were fallen trees stretching from one high point of the hill to another on the opposite side of the trail, and covered with thick, green moss. They formed a natural bridge,



A Million People

Give these stockings and socks the hardest wear hose know. They

Buy Them for Style and consider the 6 months' wear merely an extra advantage. Could any but the best in a product gain such an overwhelming preference?

We are making a wonderful hose in Holeproof. Walk in them, dance in them, play tennis or golf in them.

Holeproof Hosiery
FOR MEN, WOMEN AND CHILDREN

Every stitch is guaranteed for six months; not just heels and toes. Here are hose that will stand the most strenuous sports. We even guarantee, for men and women, three pairs of silk Holeproof Hose for three months.

Silk From Japan

We could buy common silk for Holeproof. But we send to the North of Japan for ours, for there it is grown as it is nowhere else.

74c Cotton Yarn

We could buy ordinary cotton yarn for as low as thirty-two cents per pound. Yet we pay an average of seventy-four cents. Our inspection department alone costs us \$60,000 a year.

For the past thirteen years, since Holeproof were first made, 95 per cent have outlasted the guarantee. The above figures refer to Holeproof as made in the States and Canada. Try it—buy six pairs of Holeproof today. See how they are wearing six months from today.

Sold in Your Town

The genuine Holeproof are sold in your town. We'll tell you the dealers' names on request, or ship direct where there's no dealer near, charges prepaid, on receipt of remittance. Six pairs of cotton hose guaranteed six months, for men, cost \$1.50 to \$3 per box; for women and children \$2 to \$3 per box; 3 pairs for children, \$1 per box, three pairs guaranteed three months. Several weights; all sizes and colors. Three pairs of silk Holeproof guaranteed three months, for men and women, cost \$2 a box for men, and \$3 a box for women. All colors. Medium Cashmere Socks for Men, 6 pairs \$2—fine Cashmere 6 pairs \$3. Women's fine Cashmere Stockings, 6 pairs \$3. 6 pairs of Cashmere are guaranteed six months. Write for free book, telling all about Holeproof!

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under which you walked in fear and trembling lest they fall on you, and a funny grunting noise made you think of bears and all sorts of wild things. You were much amused afterwards to hear that the noise was from ground-hogs. Here and there a pheasant ran across your path; there are many beautiful ones here. I was really sorry when I reached the end of my journey, and the two pretty chalets, which house the mistress, staff and students of the farm, came to view.

Miss Smith, who is sole proprietor and originator of this scheme, is a refined and cultured lady, born in England with an English father and a Canadian mother. She is the granddaughter of Haliburton, who was "Sam Slick" of a generation ago. She has travelled extensively, and now has chosen this beautiful spot to make a home for herself, and, while trying to make it a paying proposition, is also doing much to help her English sisters who wish to come to this country with a small capital to invest.

When in the East we hear much of the hospitality of the West, but it has been my experience that it is only the English in the West who are truly hospitable. There is no one who can put you as much at your ease or make you feel as much at home and welcome as an Old Country woman. She never fusses and worries you with unnecessary attentions, and you never feel that you are worrying her. Miss Smith was most cordial in her welcome, and kindly gave us all the information about, and showed us all the workings of her project, which is just a year old, and which she hopes will work out into something much larger. The house is on a plateau at the top of the hill and from the verandah you look out over the waters of the bay to San Juan Island lying in the distance with, behind it, Mount Baker raising its peak against the blue sky.

With thoughtful care Miss Smith has had a tent erected on the shore so that the girls may go down to bathe.

When she came to the farm first, one of the cottages had been built, but only a very small portion of the land cleared; the trees had to be cut down, stumps blasted out, and everything made ready to start work this spring. The girls start in with untried land, and gain the experience needed for pioneers in our West.

With a small hut, expert staff of teachers, she manages to give those under her care a fairly wide knowledge of all that is necessary for successful farming and home-making.

The girls pay four hundred and fifty dollars a year for tuition and board, and leave a deposit of two hundred dollars with Miss Smith, so that if illness overtakes them or they wish to return home to England, the money is there for them; if they remain until the end of the year they are sure of that much to start on. This seemed to me a very wise provision.

An old family servant gives them excellent practical training in cooking and house-keeping, each girl taking one week out of every month in the kitchen. There is a special teacher for laundry work, and, judging from the specimens I saw of snowy linen, she must be an expert.

The dairy, with its white-washed walls and cement floor, was the picture of cool cleanliness, and was not too well supplied with modern appliances, so that the girls who had to start with very little, might be able to do without things and make the best of what they had. Everything seemed to be worked out on that plan. Miss Smith's niece had taken an acre of ground for herself, fenced it, even digging the holes for the pickets, ploughed it and planted it with small fruit and vegetables.

There were bee-hives, and an expert bee-keeper to give instructions; a young orchard was set out, and the one man about the place taught tree-pruning, grafting, and care of trees. There was a large poultry yard and incubator where all kinds of poultry were being raised. I heard much talk about the "intensive" and other methods which I did not understand. There were several rabbit hutches full of young rabbits. These were expected to bring in good returns, as they were very little trouble, and rabbit is much in demand for the table in Victoria.

An acre of strawberries was giving

For that humiliating growth of

HAIR ON THE FACE

there is only one remedy—if it is to be permanently destroyed. For twenty years we have employed Electrolysis successfully in tens of thousands of cases for the sure and positive removal of this disfiguring blemish. The use of pastes, liquids and powders to remove hairs from the face, neck or arms only makes the growth worse. Cutting, pulling, burning and using pumice stone are equally as bad. If you are afflicted and want satisfactory results, take advantage of reduced fares and come for treatment during the Exposition (Aug. 23rd to Sept. 8th).

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Ruptured veins, small birthmarks, mouse marks, cowlicks, brown growths, etc., also eradicated forever by Electrolysis, which is practically painless. Booklet "E" describes our work, prices and our home treatments for the cure of all skin, scalp, hair and complexion troubles. Consultation free at office or by mail.

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FINE Grain Sugar

To have every grain alike, size of dots at left, each one choice extra Granulated White pure cane sugar, get the St. Lawrence in bags, with red tag—100 lbs., 25 lbs., 50 lbs.

MEDIUM Grain

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

COARSE Grain

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

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

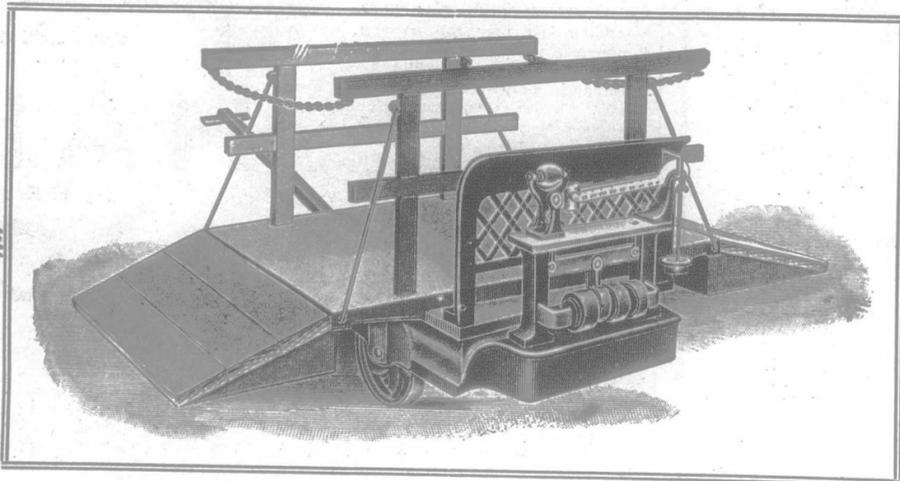
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The Adams Furniture Co. Limited.
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Please mention "The Farmer's Advocate."



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Aylmer Scale is the only 3-point bearing scale on the market.

The only scale that will weigh correctly on an uneven surface.

The wheels are large and encased.

All material and workmanship are first-class and guaranteed.

Capacity of this scale 2,000 lbs.

Size of platform without rack, 24"x36."

Why should YOU not weigh your stock and grain and ascertain where you are making money, so as to enable you to increase your profits.

This scale will pay for itself in a short time.

Mail us \$26 to-day, and we will deliver this scale, with Government certificate attached, to your nearest railway station, if in Ontario, or \$35 with cattle rack.

Let us hear from you.

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We have a reputation to maintain and we have the stock equal to the occasion. The demand for good Yorkshire never was greater than at present, and we have anticipated this and so are prepared to fill your order, large or small. We have farmers' pigs at farmer's prices, the easy feeding quick growing kind, of the approved show ring type. Our present offering consists of pigs of both sexes; four mons. old and under. Pairs not related. S. H. Jack 28515 Imp. and S. H. Romeo 27th 28653, our two sires heading the herd, are impressing their progeny with great size and beautiful type. Write us your wants and we will attend to them promptly and satisfactorily.

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Long distance phone Shedden Station.

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MITCHELL SLIDE-EASY QUALITY TIES STYLE VARIETY

"1900" Gravity Washer

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A choice lot of weanlings, both sexes, nicely belted, offspring of such show sows as Gold Medal Queen, Golden Bess, Golden Lady, Golden Girl, will be offered for sale until September 1st, at \$10.00. Ten Dollars apiece, shipped C.O.D., pedigrees furnished.

ARTEMUS O'NEIL, R.R. No. 2, Denfield, Ont



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DAVID Rankin was a big farmer and he knew his business. He owned the largest corn farm in the world, about 35,000 acres down in Missouri. He devoted his life to the pleasant study and practice of right farming, and he succeeded mightily, for he made \$4,000,000 in the business of farming. This is what David Rankin said about the manure spreader: "It is the most efficient money-maker on the place."

It's warm praise to be ranked above all other farm machines, but it is in keeping with what all the agricultural world has been recognizing. Soils rebel when crop after crop is taken from them, without return of fertilizer. Witness the abandoned, worn-out farms of New England. Return every bit of manure to the soil by the spreader method. The I H C manure spreader will save you much disagreeable, hard labor, will spread evenly, and will make one ton of manure go as far as two tons spread by hand.

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are built to suit you, to do best work for the buyer in every case, to convince him that he has made the wisest purchase. Every detail in the construction has a purpose for which it was made after thorough tests and experiment. They have the maximum of strength and endurance, and their construction bristles with advantages.

You will find all styles and sizes in the I H C spreader line. They will cover the ground with a light or heavy coat, as you choose, but always evenly, up hill or down. There are high and low machines, with steel frames, endless or reverse aprons, but always giving best possible service. Tractive power is assured by position of the rear wheels well under the box, carrying nearly three-fourths of the load, and by wide rimmed wheels with Z-shaped lugs.

These and many other things will interest and convince you if you look the I H C spreader line over at the local agent's. There is one for your exact needs. Read the catalogues that the agent has for you.

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EASTERN BRANCH HOUSES

At Hamilton, Ont.; London, Ont.; Montreal, P. Q.;
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much trouble, as the runners grow so fast in this country and the brackens would persist in springing up. There was also a small green-house with a profusion of lilies and other beautiful flowers, cut flowers in Victoria are not much in demand, as everywhere the wild roses grow, and everybody has a flower garden of some description.

The whole thing is in embryo, and so much the better for these girls who have come from homes in England where they have never been trained to meet emergencies. Our hostess had even made a great deal of her own furniture, hoping to get the girls interested in making use of everything within their reach.

Most interesting of all was our hostess herself, with her refined, gracious manner, her deep sense of humor, inherited from her grandfather, and her mixture of the practical and the ideal. She is the pioneer in woman's farming schools in Canada, and deserves much credit for her courage in starting this enterprise. She quaintly remarked herself that she thought it was the courage of ignorance.

We were invited to have dinner with the staff and students, and thoroughly enjoyed the meal prepared by one of the girls, all the vegetables being grown on the land. They are a healthy and happy looking lot of girls and seem to enjoy the life they live, the laundress looking more like our idea of a young duchess, with her beautiful golden hair, lovely complexion and regal air.

Why should they not be happy and healthy, with their life in the open, the beauties of nature all around them, the crisp air from the Pacific and its waters to bathe in?

I hated to leave it all behind when it was time, as the boys say, "to hit the trail" for home.

I shall dream of that peaceful spot and its gentle mistress for months to come, and only wish you could have been with me to share it all.

M. C.—

WATER LILIES.

I can't help printing the following letter, which accompanied a box of lovely white water lilies, just for the suggestion of beauty and "cooth"—as Kipling says,—of it, and the hope that it may inspire some more housekeepers to go out "paddling up creeks," and finding out what it is like to get away, once in a while, from "pots and pans, kettles and cans."

We put the lilies in a shallow pan filled with water, so that they rested on the surface as when in their native "country," and you should have seen how they opened up and spread their white petals out to the sun. Nearly everyone about the offices peeped in to see them, and so a number of people had reason to thank "M. D." Water lilies to a city are never "coals to Newcastle."

Dear Junia,—I've been wondering whether if I should send you some water lilies it would be "sending coals to Newcastle," but I have decided to risk it. I hope they may reach you before their freshness and fragrance have departed.

If you could only have been with us to-day as we paddled up the creek after them—the greatest part of the pleasure is in the gathering of them—or, if you could see the tiful of beauties that rewarded us, I'm certain you'd have enjoyed it as we did.

So you also love the wild crab apple blossoms, I've always thought them the most beautiful of the spring blossoms, and was delighted to find you of the same mind.

Yours sincerely,
Welland Co., Ont. M. D.

"FINDING IT PLEASANT."

Dear Junia,—I have been a reader of the Ingle Nook so long I feel as if I should be known as well as any of the chatters, yet this is my first attempt to express my views. The time and thought you have put into the Nook has not been wasted, for the splendid helps and ideas are very welcome indeed. I cannot understand why so many women dislike housework and the care of a home. I am just a young housewife, and I am trying so hard to make my home sweet and attractive. Of course I believe in all labor saving devices, and think every woman should have them. In short, I believe we

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reader of el as if I any of the st attempt time and the Nook e splendid elcome in- why so k and the a young o hard to attractive. or saving an should believe we

should do what we have to do, expend- ing no unnecessary energy. Surely if a woman wishes to, she can do her own work and yet be interested in other things besides work. Let us just live each day, making in it little bright spots for ourselves and those around us. I am sure our paths are in more pleasant places than those of so many we read of in far countries.

I wish you further success, Junia. May I sign myself.

A "Lover of the Woods." Middlesex Co., Ont.

What a happy pseudonym you have chosen. I think you, too, have been dreaming of water lilies and other lovely things. Don't you think "Lovers of the Woods" always know how to find amusement and happiness in quiet things?—As Wordsworth says, they know how to glean the "harvest of a quiet eye."—And now, thank you so much for your encouraging words. They are appreciated, indeed.

FINDING FAULT.

Dear Junia,—What would we do if it were not for help from "The Farmer's Advocate." I would please like you to give me a few points on "physical and mental harm of finding fault," and oblige.

SUBSCRIBER.

Wentworth Co., Ont. What a task you have set for hot weather!—But there, I'm even beginning by finding fault with the weather—and, they say, the more you talk about it the worse it seems,—so, perhaps, there's a point.

"Physical and mental harm of finding fault"?—Well, we all know what the continual "nagger" is, the one who finds fault with everything that comes up, always looks through blue spectacles, and never sees the bright spots at all. If she (or he) doesn't become a nervous wreck herself (himself) she (he) is rather sure to make nervous wrecks of every-one else who is about.

—By the way, aren't our pronouns dreadful? Oh, for a French "on" once in a while!—But there, this is grum- bling again, isn't it?

Clearly, an optimistic frame of mind, is worth cultivating, were it only for the way it lubricates the wheels as we go. Being able always to "see the silver lining to the cloud," and to make the best of things" is an invaluable possession, and indeed there are some who go so far as to wish to close their eyes so tightly that they can see no fault nor blemish anywhere. But it would scarcely be well if all the world were so built. There certainly are wrongs, and if no one will look at them—except those who have to suffer from them—how shall they be righted? After all, the great thing for many folk is to see absolute Truth—the good and the bad—things exactly as they are. Of course it is mighty important not to be prejudiced,—but then if we see absolute Truth we cannot be "prejudiced." Perhaps what I mean to say is that we must not permit ourselves to be biased, persuading ourselves that the bias is Truth. We must seek Balance—to see Both Sides—and, also, usually, to make Allowance. We are not perfect our- selves, so we should try not to be hastily severe with those who slip. "He is all fault who has no fault," said Tennyson.

Here are a few quotations that may suggest what you want.

"Dare to be true, nothing can need a lie:

A fault, which needs it most, grows two thereys."—Herbert.

"If lovers should mark everything a fault,

Affection would be like an ill-set book, Whose faults might prove as big as half a volume."

"Bad men excuse their faults, good men will leave them."—Ben Jonson.

"Be to her faults a little blind."

"Men's faults do seldom to themselves appear."—Shakespeare.

"Our virtues would be proud, if our faults whipped them not."—Shakespeare.

"Love, that covers multitude of sins, Makes love in parents wink at child- ren's faults."

"O, what a world of vile, ill-favor'd faults

Looks handsome in three hundred pounds a year."—Shakespeare.

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- AUGUST 18th - From all stations Kingston to Renfrew inclusive and east thereof in Ontario.
AUGUST 22nd - From Toronto and West on Grand Trunk Main Line to Sarnia inclusive and South thereof.
AUGUST 25th - From Toronto and North-Western Ontario, North of but not including Grand Trunk Line Toronto to Sarnia and East of Toronto to Kingston, Sharbot Lake and Renfrew, including these points.
SEPTEMBER 3rd - From Toronto and all stations in Ontario East of but not including Grand Trunk Line Toronto to North Bay.
SEPTEMBER 5th - From all stations on Grand Trunk Line Toronto to North Bay inclusive, and West thereof in Ontario, including C.P.R. Line Sudbury to Sault Ste. Marie, Ontario, but not including Azilda and West.

ONE-WAY SECOND-CLASS TICKETS WILL BE SOLD TO WINNIPEG ONLY One-way second class tickets to Winnipeg only will be sold. Each ticket will include a verification certificate, with an extension coupon. When extension coupon has been signed at Winnipeg by a farmer, showing he has engaged the holder to work as a farm laborer, the coupon will be honored up to September 30th for ticket at rate of one-half cent per mile (minimum fifty cents) to any station west of Winnipeg on the Canadian Pacific, Canadian Northern or Grand Trunk Pacific Railways in Manitoba, Saskatchewan or Alberta, but not west of Edmonton, Calgary or MacLeod, Alta. A certificate will be issued entitling purchaser to a second-class ticket good to re-urn from any station on the Canadian Pacific, Canadian Northern, or Grand Trunk Pacific Railways in Alberta, Saskatchewan and Manitoba east of MacLeod, Calgary and Edmonton to original starting point by the same route as travelled on going journey on or before November 30th, 1913, on payment of one half cent per mile (minimum fifty cents) up to Winnipeg added to \$18.00 from Winnipeg, provided the holder deposits the certificate with the ticket agent on arrival at destination, and works at least thirty days at harvesting. For full particulars see nearest C.P.R. Agent, or write— M. G. MURPHY, D.P.A., C.P.R., Toronto

When writing advertisers, please mention "The Farmer's Advocate."

Seasonable Recipes.

Beets should be pickled while they are young and tender. When so done and sealed away they are very delicious for winter use, either as "pickles" or when made into salad. Here are a few methods:

Beets With Horseradish:—Boil twelve beets, peel them and pack in sterilized jars. Heat 1 quart of vinegar with 1 teaspoon ginger and 1 teaspoon of mace, strain, then add 2 tablespoons grated horseradish. Pour over the beets when boiling hot and seal at once.

Canned Beets:—Use very young, tender beets. Cook in cold water and peel. Put them into hot fruit jars, then fill the jars with boiling salted water, a teaspoon salt to a quart water. Put on the rubbers and glass tops and steam for one hour, then screw down the sterilized tops, and boil 15 minutes longer. Unless very young beets are used cut them in slices.—Boston Cooking School.

Another Method:—Choose young beets, boil 30 minutes and skin. Pack the beets in jars, fill jars with cold water, place the rubbers on, and lay the glass tops on. Place the jars on rack in boiler, and fill the boiler to half the depth of the jars with cold water, put on the cover and boil for one hour. Remove one jar at a time, screw down the lid, replace in the boiler, put on the cover and boil for another hour. Instead of water, water and vinegar may be used.—Pictorial Review.

Sugar Cookies:—Cream together 1 cup

Chapman Type F **Pneumatic Tank Systems** **Chapman Pumps**

The Ontario Wind Engine & Pump Company's Display
of power and water supply goods at the Canadian National Exhibition this year will surpass any previous exhibit, and will be the largest of its kind on the Toronto grounds.

LOCATED just across from the Art Building, their showing of the Chapman Engines operating on coal oil, the Chapman Well Drill at work in the hole, a completely-installed Pneumatic Pressure Tank, showing water systems for house, lawn or stable; complete stable equipment, stalls, stanchions and water basins; tanks, wood and steel; pumps, windmills, saws (stationary and portable), scales (platform and portable), feed grinders, pump cylinders of all kinds, and fittings, will be as interesting and instructive to seekers of the best and most modern in manual husbandry, as the art exhibit is to lovers of the beautiful in pictures.

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Grinder **Chapman Well Drill** **Chapman Type C**

butter, 2 cups sugar, and add 3 eggs, well-beaten. Next add 1 cup sour cream, 1 teaspoon soda, and enough flour to make a soft dough. Roll thin and bake in a rather quick oven for 15 minutes.

Tomatoes on Toast:—Peel two large tomatoes, and cut them up. Put into a saucepan $\frac{1}{2}$ cup milk, a bit of butter, and a dash of salt and pepper. When simmering add the tomatoes. Beat all with a fork until quite soft, then spread on hot buttered toast, and serve at once.

Tomato Pie:—Peel and slice 1 lb. ripe tomatoes. Line a pie-dish with good pastry, fill with the sliced tomatoes, sprinkle well with sugar, then with a little cinnamon and grated nutmeg. Last of all add 2 teaspoons vinegar and one of lemon essence. Cover with pastry and bake.

Bavarian Cream:—Mix together 1 cup fruit juice, juice of half a lemon, and $\frac{1}{2}$ cup sugar. When the sugar is dissolved add 1 tablespoon powdered gelatine dissolved in $\frac{1}{4}$ cup cold water. Let stand until it thickens somewhat, then fold in $1\frac{1}{2}$ cups heavy cream whipped stiff. Let stiffen in a mould, and serve with cream and sugar.

Women's Institute Papers.

Having an Aim in Life.

[A paper given by Mrs. T. E. Barber, at a meeting of the Mountain View Branch of the Women's Institute.]

What does it mean?—Social standing, accumulation of wealth, or integrity? The two former are to be desired, but the latter is indispensable. Life is the springtime of eternity, a voyage to the grave. The sea we have to navigate, viewed in prospect, looks smooth and inviting, but beneath it conceals shoals, quicksand and rocks. Great multitudes in attempting to reach the

A NEW

Corn Cutter AND Blower

Combining all the latest ideas and improvements in this class of machinery. If you are going to buy a Silo Filler this year, be sure and see this splendid new machine. We also manufacture all kinds of Corn and Feed Cutters. Send for a booklet describing them.

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distant shores are shipwrecked and lost. No man knows his destiny. We pass our lives in regretting the past, complaining of the present, and indulging false hopes of the future.

The great art and philosophy of life is to make the best of the present, whether it be good or bad, and to bear the one with resignation and patience, and to enjoy the other with thankfulness and moderation. Are we brought into the world and allowed to occupy a place in it only that we may pursue trifles?—that we may brutishly gratify our appetites and passions?—that we may leave the world at last without having derived any advantage from being in it, or conferring a single benefit upon it? I have often been impressed by the deep significance of the phrase which Dickens has given as a title to one of his Christmas stories, "The Battle of Life." It is full of solemn meaning. All our hours, from the cradle to the grave, are but a series of antagonisms, hunger, fatigue, sickness, temptation, sin, remorse, sorrow.—These are the strong powers with which we must wage continual war. Foes beset us from without and from within, and make life one long, earnest battle. But there are victories to be won on the field more glorious than those which crimsoned Marathon and Waterloo. Evil habits may be subdued, fiery passions brought under the control of principle, temptations resisted, self denial cheerfully sustained, and life itself consecrated to high and holy purposes.

Good training and a fair start constitute a more desirable patrimony than wealth, and those parents who study their children's welfare rather than the gratification of their own avarice or vanity, would do well to think of this. Life is no speculative adventure with those who feel its value and duties. It has a deeper purpose, and its path becomes distinct and easy in proportion as it is earnestly and faithfully pursued. The rudest or the most refined pursuit, if adapted to the wants and capacities of the pursuer, has a truth, a beauty, and a satisfaction.

And say to parents what a holy

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to make our exhibit your headquarters while at any of the Fairs listed below, also at the smaller Fairs. We wish to meet you personally and show you the STANDARD Cream Separator—the separator that made the new skimming records in the Government Dairy Schools. Also to show you the

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—the engine that starts without cranking and runs on so little gasoline.

Renfrew Truck Scale

—the scale that you can wheel about, that mounts its own load and will weigh one pound to 2,000 pounds accurately.

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Quebec, Aug. 23 to Sept. 2. Renfrew, Sept. 17 to Sept. 19.
Sherbrooke, Aug. 31 to Sept. 6. Ottawa, Sept. 5 to Sept. 13.
Charlottetown, Sept. 23 to Sept. 26.

If you cannot meet us at the Fairs, send for our catalogue.

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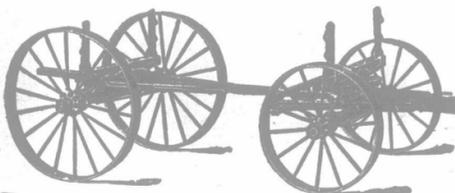


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Farmers' Handy Wagon. with Electric Forged Steel Wheels. 28-inch and 34-inch diameter, 4x3/4-inch grooved tire. Capacity 4,000 lbs. Shipped from Toronto. \$37.50, freight paid. Terms, cash with order.

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Herd headed by King Johanna Pontiac Korndyke, whose near dams and sisters, 12 in all, average 33.77 lbs. butter in 7 days. His sister, Pontiac Lady Korndyke, has a record of 38.92 lbs. butter in 7 days, 156.92 lbs. in 30 days—world's records when made. We are offering several females bred to this bull, also a few bull calves.

J. W. RICHARDSON,
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When Writing Mention "The Advocate"

charge is theirs: with what a kindly power their love might rule the foundations of the new-born mind. Warn them to wake at early dawn and sow good seed before the world has sown its tares."

Do not make too much of children's mistakes and faults. How can one be a child and not be full of faults? Explain their mistakes gently. Be patient. Wait for them. Children must have time to grow. Never let fear make a gulf between the child and you. Within due bounds liberty is the best thing for a child. It will lead to irregularities, but out of these will come experience and gradually self-control.

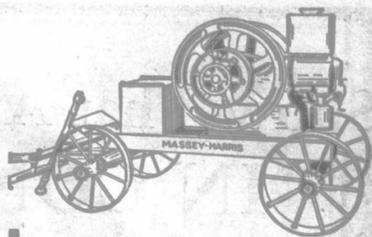
The object of all family government is to teach children to get along without being governed. They must, therefore, be trusted. Keep them busy with pleasant work if possible; awaken in them curiosity about the things which lie around them: a very little instruction will make them curious in regard to plants, minerals, natural history, literary curiosities, autographs, post stamp collections, and many things which will inspire pleasure in their reason rather than in their appetites. We are indebted to our children for the perpetual reminder that we do not live to ourselves alone: for their sakes we are admonished to put from us the debasing appetite, the unworthy impulse, and to gather into our lives every noble and heroic quality, every tender and attractive grace.

Girls have much influence at home, where brothers delight in their sisters, and where parents look fondly on them and pray that their example may influence the boys for good. Girls have much in their power with regard to those boys. They have it in their power to make them gentle, purer, truer, to give them higher opinions of women, to soften their manners and ways, to tone down rough places and shape sharp angular corners. All this, to be done well, must be done by imperceptibly influencing them, and giving them an example of the politeness and tenderness we wish them to emulate.

To be successful in life, to rise above the common herd of mankind, a young man requires certain elements of character. He must possess integrity, that he may win public confidence; intelligence, that he may command respect; industry, that he may collect honey from the flowers of trade; economy and frugality, to preserve his gains; energy, by which to surmount obstacles; tact, to enable him to adapt himself to the openings of Providence, and to make him the man for the hour of opportunity. These qualifications are, to success in life, as foundations of jasper to a royal palace. Whoever possesses them cannot be an inferior man. To that man who retains them, life cannot be a failure.

Self-culture implies suitable efforts to strengthen and expand the intellect, by reading, by reflecting, and by writing down your thoughts. Reading suitable books stores the mind with facts and principles as a real mental aliment and thus quickens the soul into growth; while writing tends to precision of thought and beauty of expression. Every person should, therefore, read much, reflect more, and write as frequently and carefully as they have opportunity.

In order that a young woman may be qualified to act well her part in life, she should acquire a thorough knowledge of all domestic and culinary affairs, so that even if she should never be required by circumstances to go into the kitchen to cook a dinner, she will yet be able to give directions how to do it and know when it is properly done. It must not be inferred that we should shut a woman up a prisoner in her house and cause her to devote every hour of her time to domestic duties. All we contend for is that a woman should govern her household as fully as a man governs his farm, store, office or factory, and that, in order to do this, she should qualify herself beforehand for her particular duties, as he has to qualify himself for his. But let it not be forgotten that the habit of order must be formed in early years. When life's most serious duties press upon the mind and demand the exercise of all its energies, there is no time to think



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The Hopper may be removed at any time and a Plate substituted, thus changing the Engine to the Closed Jacket style which is sometimes preferred where an abundant supply of water is available.

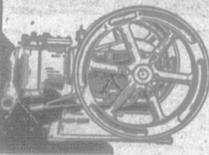
While the Hopper Jacket is the popular type for farm use, we can supply either style, and one can be changed to the other at any time by simply buying the Plate or Hopper.

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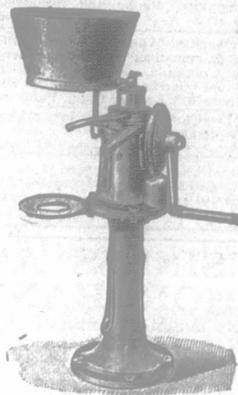
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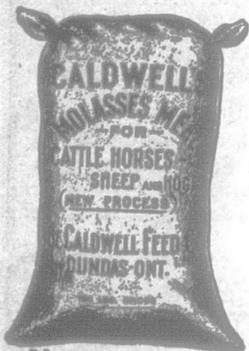
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Show That Animal IN CONDITION

The Caldwell Feed Co., Ltd., are again offering Silver Cups at the Guelph Winter Fair for the best conditioned horse, steer, sheep and hog, irrespective of conditioner used.

You can take the word of the majority of owners of "blue ribboned" stock that nothing can touch



CALDWELL'S Molasses Meal

For getting animals into the pink of condition in a mighty short space of time.

The Reason isn't hard to find: This feed contains 84 per cent. pure cane molasses, all nutriment; 16 per cent. edible moss, great aid to digestion. Animals like it from the start.

Use it. It is an economy and an excellent investment and you will SEE the value of your stock GOING UP.

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DUNDAS - ONTARIO



This is one of four cups donated for the Best Horse, Beef Animal, Dairy Cow and Pen of Bacon Hogs shown at the Guelph Fat Stock Show this year.

THE USE OF LIFE.

My life is what I make it. I am I.
A spark of God, to cherish or let die,
I breast no wave, but drift to sea, a
weed,
Or shape myself into a tuneful reed.

Or else I lie and grovel in the dust,
Forever murmuring, "What must be
must."

Or work with every fibre, till I stand
A beacon, shedding light through the
land.

News of the Week.

BRITISH AND FOREIGN.

The Duchess of Connaught suffered a relapse at Cowes in England.

The will of the late Anthony N. Brady, of New York, is said to dispose of an estate of 100,000,000 dollars, equal to that of the late J. P. Morgan.

The Duke of Connaught, it is stated, will return to Canada immediately after the marriage of his son, Prince Arthur of Connaught, October 15th, next.

President Huerta, of Mexico, defies foreign intervention in Mexican affairs.

Peace was restored in the Balkans August 6th, but another outbreak may occur at any moment, as the Bulgarians are not satisfied with Roumania's share of the spoils.

Henry Lane Wilson resigned as American Ambassador to Mexico, and ex-Governor John Lind, of Minnesota, has been sent to Mexico to represent the President of the United States.

Dr. Sun Yat Sen, formerly provisional President of China, has fled from the country on a Japanese steamer bound for Formosa.

Serious fighting occurred August 6th near Shanghai, China, many rebels being killed.

CANADIAN.

Geologists from all parts of the world held a great convention in Toronto, and toured several parts of Ontario.

Gossip.

The Menie District Ayrshire Breeders' Club propose holding a meeting at Wm. Stewart & Sons' Stock Farm, Menie, Ont., Wednesday, August 20th, 1913. A judging class will be conducted by Prof. H. Barton, of Macdonald College, and practical subjects of interest to Ayrshire breeders will be discussed by G. G. Publow, Chief Dairy Instructor for Eastern Ontario, Prof. Barton and others. Trains will be met at Hoard's station.

The Continental Cream Separator, advertised elsewhere in this issue, is manufactured by the old reliable firm of Heinrich Lanz Mannheim (Germany) a leading German firm, manufacturers of separators and agricultural implements. Their separator is the result of many years' experience, its special features being an absolutely self-balancing bowl, no springs being used. It is the final word in bowl construction. The whole design is simplicity itself, and the accessibility of each part is a striking feature. Only the best materials are used in its construction, the gears being made of absolutely non-corrosive metal. It is very easily cleaned, and special cleaning tongs are furnished with each machine. It turns easily, a child being able to operate it without difficulty. It will be exhibited for the first time in Canada at the forthcoming Canadian National Exhibition, Toronto, and later at the Western Fair, London, and the Central Canada Exhibition, Ottawa. The sole importers of Continental Separators are Marburg Bros., engineers and importers, Empire Building, 64 Wellington Street West, Toronto, Ont. See the ad., and look over this separator before buying.

Percheron Stallions and Mares

at prices that you can afford to pay. Mares a ton and over in pairs or single. All warranted breeders, for they have produced colts that I have already sold in Ontario and are in foal now to the best horses. Stallions that you will admire, two years old and over. Twenty-three years a breeder of Percherons. See my horses at London Fair

F. J. SULLIVAN,
Windsor, Ontario

Cloverdale Large English Berkshires
No matter what your needs in Berkshires may be, see Lang the live Berkshire man. He is always prepared to furnish anything in Berkshires. Write, or come and inspect.
C. J. LANG,
Hampton, Ont., Durham Co.

about systems of order and little inclination to attempt doing so.

Department, honesty, caution, and a desire to do right, carried out in particular, are, to human character, what truth, reverence, and love are to religion. They are the unvaried elements of a good reputation. Such virtues can never be reproached, although the vulgar may scoff at them. There is no greater enemy to all goodness than ill-temper and selfishness. Idleness is the nursery of crime. It is the prolific germ of which all rank and poisonous vices are the fruits. It is the source of temptation. It is the field where the enemy sows tares while people sleep. Could we trace the history of a large class of vice, we should find that they generally originated from the want of some useful employment, and are brought to supply its place.

There is a difference between character and reputation. Character is what we really are; reputation is what others suppose we are. A person may have a good character and a bad reputation, or may have a good reputation and a bad character. The reason of this is that we form our opinions of people from what they appear to be, and not from what they really are. Some people are more anxious about their reputation than they are about their character. This is unwise. While every person should endeavor to maintain a good reputation, he or she should especially labor to possess a good character. Nothing can be so important to any person as the formation and possession of a good character.

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

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

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

ALBERTA—217 acres, 6 miles Botha; beautifully situated on lake; 118 acres cultivated, all tillable; choice black loam; fenced, cross-fenced. Two miles school; house, stable 12, hen houses, granary, etc. Excellent water. Snap, \$17 per acre; \$1,500 cash, balance arranged. About this and other bargains write George Grant, Herald Block, Calgary, Alberta.

FOR SALE OR TO RENT in one lot or divided as desired, two hundred acres, first class soil, with new brick house and first class out-buildings. Well watered and drained. In township of Dereham, six miles south of Ingersoll, convenient to School, Church and Factories, etc. Andrew Mitchell, Ingersoll. Independent 'phone.

FOR SALE—150 acres in Wellington Co., four miles from Fergus. Good land, brick house, good bank barn. Phone and rural mail. For particulars, write A. P. Gerrie, Fergus, Ont.

RANCH Manager Wanted.—Wanted an experienced dairyman as manager for large ranch in British Columbia. State age, qualifications, experience and references. B. C. Anti-Tuberculosis Society, Room 103, Empire Bldg., Vancouver, B.C.

WANTED—Capable girl for general housework by September 1st; \$20.00 per month. Apply Box W. Farmer's Advocate, London, Ont.

ENGLISHMAN, 19, experienced in all but plowing, used to stock, desires permanent situation with a view to possible purchase. Box No. B, Farmer's Advocate, London.

BUSINESS AND SHORTHAND

Subjects taught by expert instructors
at the

Westervelt School
Y. M. C. A. BLDG.,
LONDON, ONT.

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

J. W. Westervelt, Principal
J. W. Westervelt, Jr., Chartered Accountant
17 Vice-Principal

PURITY FLOUR

is the "Staff of Life" in hundreds of thousands of Canadian Homes. It makes "More Bread and Better Bread." And Buns, Rolls, Cakes, and Pies made with PURITY FLOUR are certainly a treat. Order a sack of PURITY today. If it does not give you complete satisfaction in every way your money will be returned.

PURITY FLOUR

"More Bread and Better Bread" and
—Better Pastry too

614

When writing mention Advocate

A CONCRETE SILO

Is One of the Best Investments on a Farm

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

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

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

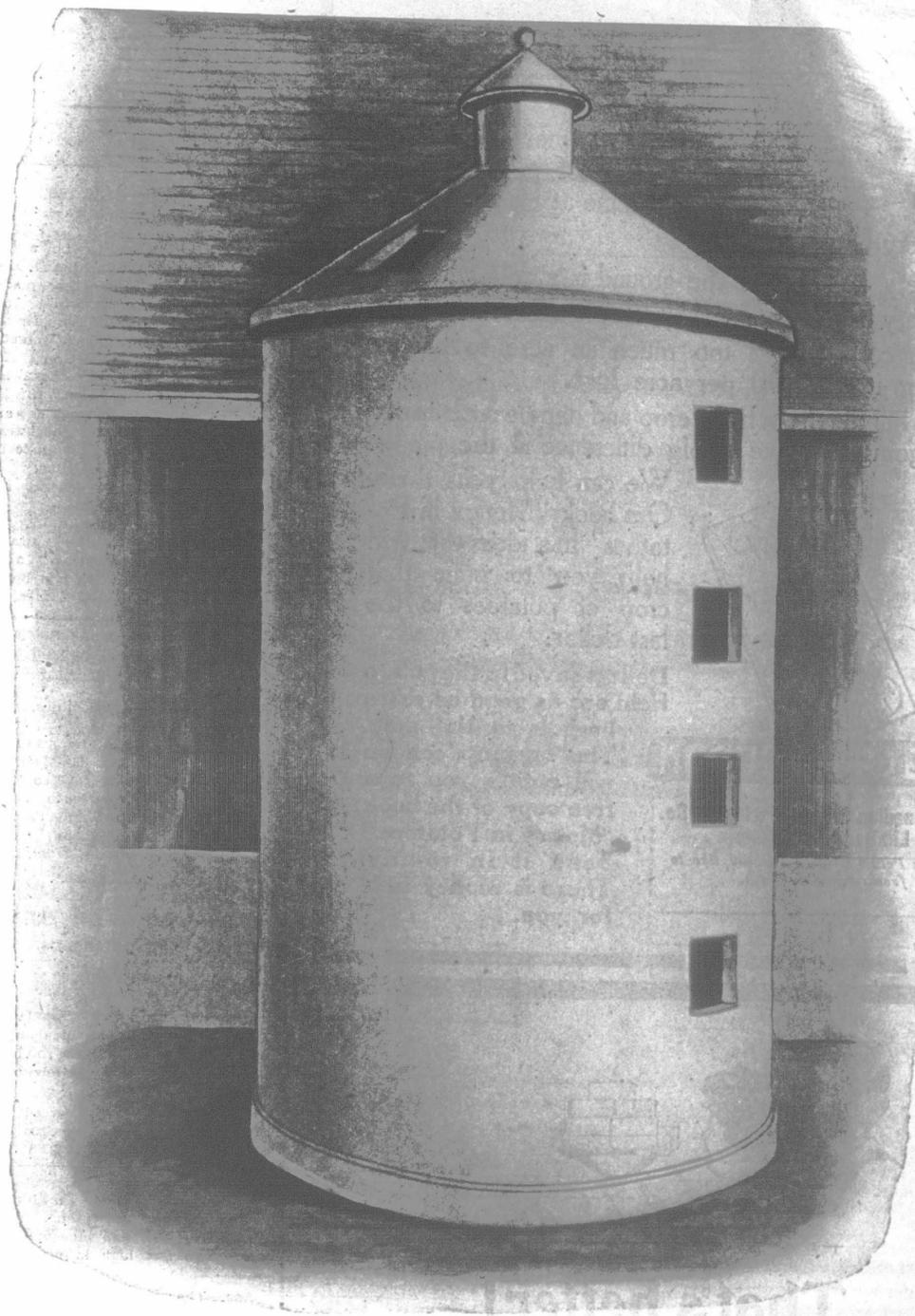
A Few Advantages of Concrete Silos :

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

A concrete silo prevents all danger of waste from frost.

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

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



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

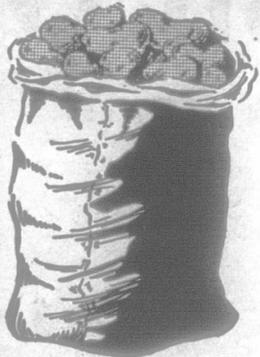
When building concrete silos or making any improvements in concrete, be sure to buy ROGERS' PORTLAND CEMENT. The man who knows cement will tell you that ROGERS' BRANDS are best.

ALFRED ROGERS, LIMITED

28 King Street W.

Toronto, Ontario

MONEY IN POTATOES



**Every Bag
a DOLLAR**

Get them all

THE farmer with a big crop of potatoes has a gold mine at his back door.

Every bag is a dollar.

Every bag left in the ground is a dollar lost.

Every bagful chopped by the plow is a dollar lost.

If it costs \$5.00 too much an acre to harvest them it is \$5.00 per acre lost.

To handle the whole crop and handle it cheaply is going to make a big difference in the profits.



BIG CROP COUPON

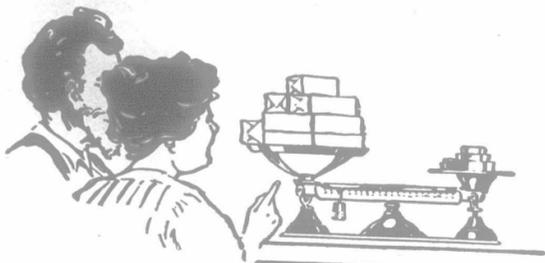
The Canadian Potato Machinery Co. Limited, Galt, Ontario
As a Potato Grower I would like to have a free copy of this book.

Name _____
Address _____

We can help you there. Our book "Money in Potatoes" has ideas that will help you to mine that crop of potatoes to the last dollar.

Dollars saved in the potato field are as good as extra bushels to the acre. The "big crop" coupon will entitle you to a free copy of the book "Money in Potatoes." Send it in to-day. There is money in it for you.

18



That's better!

It pays, for sure, to keep Cows in a clean Stable. Give them clean stalls and lots of pure air, which they need just as much as pure water and good food, and they will give more milk, more cream, more butter.

19

Canadian Potato Machinery Co., Limited, GALT, ONT.

O.K. CANADIAN STALLS AND STANCHIONS

Our little book "The Proper Housing of Cows" will be sent free to Dairy Farmers. Write for it to-day.



"Clay" Gates

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

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

Trade Topic.

A NEW ADVERTISING MANAGER FOR THE INTERNATIONAL.

It has been announced by the management of the International Harvester Company of America that F. W. Heiskell, for two years assistant advertising manager, will succeed M. R. D. Owings as advertising manager, and that A. C. Seyfarth, formerly head of the production department, will take the position left vacant by Mr. Heiskell's promotion. Both of these promotions are along the regular civil service system of advancement laid down by the Company in building up its organization. Mr. Heiskell began his work in the harvesting machine business, twenty years ago, while still a high-school boy in Indianapolis, working in the repair room under James B. Heywood, who was guiding the McCormick destinies in Indianapolis at the time. After his graduation in 1895, he was given a permanent position. He worked his way up from the repair department, until, in 1905, he was sent to Fort Wayne to be assistant to J. W. Wisheart, who was the International general agent at that place. The following year he was sent to Akron, Ohio, to establish a Transfer Agency, using the Buckeye plant recently purchased by the International Harvester Company. In 1907 he went to East St. Louis to establish a transfer and distributing house for the southwest territory, for the purpose of relieving the congestion at Kansas City. He was later made assistant general agent at Indianapolis under "Jess" Everson, which position he was holding when he was transferred to the Chicago headquarters to be assistant advertising manager. Mr. Seyfarth has been identified with the advertising department of the International since its formation in 1903. Beginning as a catalogue writer, he has gradually gone ahead until the last few years he has had charge of the production department, which issues catalogues, folders, calendars, the I H C Almanac and Encyclopedia, and other literature. He is a University of Michigan man. Both Mr. Heiskell and Mr. Seyfarth are well known to the trade. They possess the confidence and esteem not only of the fellow-members of the International organization, but of the farm machine world in general.

Questions and Answers.

Miscellaneous.

Twitch Grass.

Enclosed please find sample of some grass or weed for identification. I have a strip of it about one rood square in a field and it won't allow a spore of any other grain to grow.

H. H.

Ans.—The grass is a weed, quack or twitch grass. It requires persistent cultivation to kill it.

Bittersweet.

Kindly give me information about the enclosed plant, of which I send the root and blossom. It grows about two feet high in mucky soil.

M. F.

Ans.—The purple united petals and yellow stamens opening by a pore at the top show that the plant is one of the nightshades. Both the one known as the climbing bitter-sweet, with red berries, and the common low nightshade, with blackish berries, might be found in the soil you name. Notice the resemblance of the flower to that of the potato and tomato-plants, which are related to the nightshades.

J. D.

Five Weeds.

Please identify the enclosed weeds.

J. H. M.

Ans.—Plant No. 1 is Evening Primrose (*Oenothera biennis*). Plant No. 2 is Wiry Rush, Path Rush (*Juncus tenuis*). No. 3 is Erect Cinquefoil (*Potentilla monspeliensis*, probably variety *norvegica*). No. 4—The common Mouse-ear Chickweed (*Cerastium vulgatum*). *Cerastium viscosum* differs only in small details, such as longer pedicels. No. 5—Starwort—*Stellaria graminea* looks like *Stellaria longipes* when in flower, but when the seeds are ripe, the pods of *S. longipes* are dark-brown or black, while those of *S. graminea* are pale.

J. D.

"Ohio" 1913 Model The Improved Logical Silo Filler



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

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

59 years' experience—absolutely dependable quality.

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

One Lever Controls All

Entire feed reverses by good friction at finger pressure—no strain—not a gear tooth changes mesh. All gears perfectly housed. Famous "Bull-Dog" grip self-feed. Enormous half-inch cut tonnage, 50 to 250 tons a day—6 to 15 h. p. 20-year durability. Used by Experiment Stations everywhere. Guaranteed. Many big new features this year. Write for free "Ohio" catalog today. A postal will do.

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

CANADIAN NATIONAL EXHIBITION

Toronto

Aug. 23rd to Sept. 8th

\$55,000 in prizes for products of the Farm, the Home and the Garden.

New Live Stock Department and extension of prizes to give the small breeder a chance.

ALL ENTRIES CLOSE AUG. 15

For prize lists and information, write

J. O. ORR, Sec'y and Manager
City Hall, Toronto

Pump annoyances never worry the Farmers who are fortunate enough to be using Imperial Anti-Freezing Pump



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

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

Get our illustrated catalogue with prices—sent postpaid. This interesting catalogue sent to you on receipt of post card. Send us your address to-day.

Aylmer Pump & Scale Co., Ltd.
AYLMER, ONTARIO

PATENTS procured everywhere EGERTON R. CASE
Registered Attorney, Dep. E. Temple Building, Toronto. Booklets on request, 20 yrs. experience.

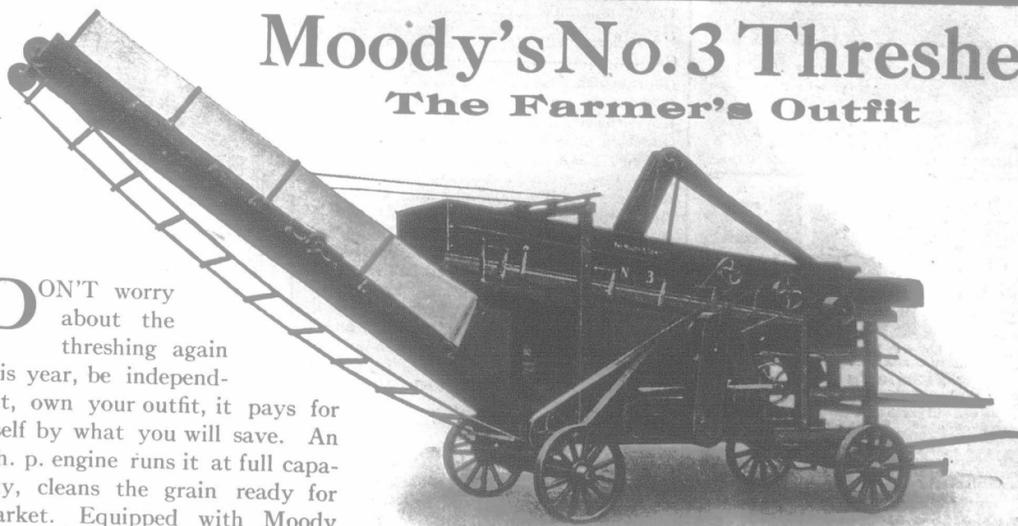
Please mention "The Farmer's Advocate."

Dates of Fall Fairs, 1913.

The following is a corrected list of the dates of Fall Fairs, issued by the Agricultural Societies' Branch of the Ontario Department of Agriculture, Toronto.—J. Lockie Wilson, Supt.

Table listing dates of fall fairs for various locations including Aberfoyle, Abingdon, Alexandria, Alfred, Alliston, Alvinston, Ameliasburg, Amherstburg, Ancaster, Arnprior, Arthur, Ashworth, Aylmer, Ayton, Bancroft, Barrie, Baysville, Beachburg, Beamsville, Beaverton, Becher, Beeton, Belleville, Belwood, Berwick, Binbrook, Blackstock, Blenheim, Blyth, Bobcaygeon, Bolton, Bonfield, Bothwell Corners, Bowmanville, Bracebridge, Bradford, Brampton, Brigden, Brighton, Brinsley, Brockville, Bruce Mines, Brussels, Burford, Burk's Falls, Burlington, Caledonia, Campbellford, Campbellville, Carp, Castleton, Cayuga, Centreville (Addington Co.), Charlton, Chatham, Chatsworth, Chesley, Clarksburg, Cobden, Cobourg, Cobourg Horse Show, Colborne, Coldwater, Collingwood, Comber, Cookstown, Cooksville, Cornwall, Courtland, Delaware, Delta, Demorestville, Desboro, Dorchester, Drayton, Dresden, Drumbo, Dundalk, Dunnville, Durham, Elmira, Elmvalle, Embro, Emo, Emsdale, Englehart, Erin, Essex, Fairground, Fenelon Falls, Fenwick, Fergus, Faversham, Flesherton, Florence, Fort Erie, Forest, Fort William, Frankford.

Moody's No. 3 Thresher The Farmer's Outfit



DON'T worry about the threshing again this year, be independent, own your outfit, it pays for itself by what you will save. An 8-h. p. engine runs it at full capacity, cleans the grain ready for market. Equipped with Moody Patented Bar Cylinder, assuring no loose teeth or breakage. Can be supplied with high grain elevator for wagon or grainery. Capacity from 600 to 1,000 bushels per day. Handy and easy to operate. Write for price and further particulars.

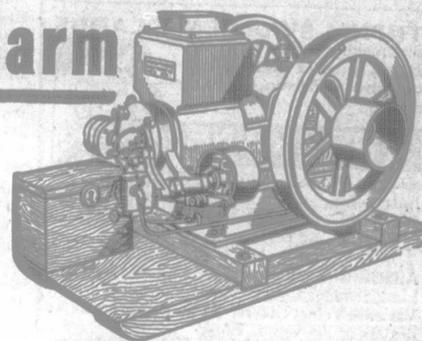
We have a complete line of small Threshers. Our Famous Two-Horse Tread Power Threshing Machine is known all over the Dominion.

We also build the America Champion Thresher and a full line of Farm Implements.

The Matthew Moody & Sons Company Terrebonne, Que.

An Ideal Engine for the Farm

This engine is staunchly built to stand up under rough and ready conditions. Simplicity of construction is really remarkable. The small number of parts makes it an easy engine to understand, and lessens its chances of getting out of order. It has practically all the valuable features of our larger



Barrie Engines

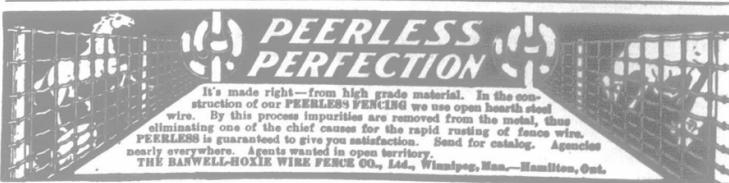
including their famous economy in operation. Lowest possible consumption of gasoline or kerosene guaranteed. Hopper-cooled. Requires small amount of water. Mounted on good, substantial skids, all ready to run. 2, 3, 4 and 5 h.-p. Other styles in stationary, portable and semi-portable from 2 h.-p. to 400 h.-p. For gasoline, kerosene, producer gas and distillate. Write for catalogue and prices.

The Canada Producer & Gas Engine Co., Limited, ONTARIO.

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

Genasco THE TRINIDAD-LAKE-ASPHALT Ready Roofing

The roof is the mainstay of the building. Trinidad Lake asphalt is the mainstay of Genasco. And Genasco applied to your roofs with Kant-leak Kleets gives perfect protection. Write us for the Good Roof Guide Book and samples. The Barber Asphalt Paving Company, Philadelphia; Lewis Bros., Ltd., Montreal, Ottawa, Toronto; Evans, Coleman & Evans, Ltd., Victoria, B. C.; D. H. Howden & Co., Ltd., 200 York Street, London, Ont.; The Canadian Asphalt Company, Ltd., Winnipeg, Man.



It's made right—from high grade material. In the construction of our PEERLESS FENCING we use open hearth steel wire. By this process impurities are removed from the metal, thus eliminating one of the chief causes for the rapid rusting of fence wire. PEERLESS is guaranteed to give you satisfaction. Send for catalog. Agents nearly everywhere. Agents wanted in open territory. THE BARWELL-HOXIE WIRE FENCE CO., Ltd., Winnipeg, Man.—Hamilton, Ont.

Advertisement for 'Flashlight' with text: 'Gee! what a light! Send for this handy ELECTRIC FLASHLIGHT Every Farmer needs it. From the Bottom and get a brilliant Electric Light. \$1.90 by mail, post free. Send to-day. CANADIAN CARBON CO., 25 West King St., TORONTO.'

FOR SALE Pedigree Shetland Pony Stallion by Thor (83) ex-Begonia (2151); 4 years; 30 inches great bone; £35-mare by Marquis (322) ex-Marciona (2864); 4 years; 40 inches; £35 (with foal at foot.) Both handsome, good movers, sound, quiet, harness and saddle. Also other highly pedigreed ponies.

Honble. Miss Hicks Beach, Coin-St.-Aldwyn, Fairford, England. Shires and Shorthorns In Shire stallions and fillies, from the best studs in England, we are offering some rare animals at rare prices. Scotch Shorthorns of either sex or age, of highest breeding and quality. John Gardhouse & Son, Highfield, Ont. L.-D *phone.

Advertise in the Advocate

HORSE OWNERS! USE
CAUSTIC BALSAM.
 A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from horses. Impossible to produce scar or blemish. Send for circular. Special advice free.
 THE LAWRENCE-WILLIAMS CO., Toronto, Canada

Fistula and Poll Evil
 Any person, however inexperienced, can readily cure either disease with **Fleming's Fistula and Poll Evil Cure**—even old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vets. Pocket Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durably bound, indexed and illustrated. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ont.

Veterinary Drugs Pharmacy
 Any kind of **VETERINARY DRUGS**
 If you need any, write at once, when we will quote very low and reasonable prices.
 Consultation by letter **FREE** of charge, with our diploma veterinary doctor. For any diseases, write and consult him now.
NATIONAL STOCK FOOD COMPANY
 Ottawa, Ont.

THICK, SWOLLEN GLANDS that make a horse wheeze, Roar, have Thick Wind or Choke-down, can be reduced with **ABSORBINE**
 also any Bunch or Swelling. No blister, no hair gone, and horse kept at work. Concentrated—only a few drops required at an application. \$2 per bottle delivered. Book 3 K free.
ABSORBINE, JR., antiseptic liniment for mankind, reduces Cysts, Wens, Painful, Knotted Varicose Veins, Ulcers. \$1 and \$2 a bottle at dealers or delivered. Book "Evidence" free. W. F. YOUNG, P.D.F. 259 Lyman St., Montreal, Can.

HORSE AND CATTLE INSURANCE
 Against Death by Accident or Disease
 Specialties of Stallions, In-foal Mares, Track Horses, Transit, etc. Liberal policy issued by a Company operating under Federal Insurance Department's supervision.
 WRITE FOR FREE BOOKLET
 The General Animals Insurance Company of Canada
 Head Office: 71a St. James Street, Montreal, Que.

NOTICE TO HORSE IMPORTERS
GERALD POWELL,
 Commission Agent and Interpreter,
 Nogent Le Retrou, France.
 Will meet importers at any port in France or Belgium and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking, and pedigrees. Many years' experience; best references. Correspondence solicited. P.S.—Nogent is in the heart of the Perche horse district.

Notice to Importers
C. CHABOUDEZ & SON
 205 rue La Fayette, PARIS, FRANCE.
 If you want to buy Percheron Horses and Mares, I will save you time and money and all trouble with papers and shipment. Will meet importers at any landing port. I am acquainted with all breeders and farmers. 30 years experience. Best reference. Correspondence solicited.

Messrs. Hickman & Scruby
 Court Lodge, Egerton, Kent, England.
 Exporters of Pedigree live stock of all descriptions. Illustrated catalogues and highest references on application. We are doing a very large business in draft horses of all breeds, but especially Percherons, and we are offering unsurpassed values. All over the world there is a shortage of wool and mutton, sheep will go higher, and we solicit orders for show flocks. Our prices on big bunches of field sheep will surprise you.

Imported Clydesdale Stallion
 15 years, big boned, gets great colts, good worker, fine disposition; on Michigan Stock farm, need change blood. Exchange stud colt, milking short-horns. Mac Bain, Closter, New Jersey.

Frankville.....	Sept. 25 and 26
Freelton.....	Oct. 1
Galeta.....	Sept. 24 and 25
Galt.....	Oct. 2 and 3
Georgetown.....	Oct. 1 and 2
Glencoe.....	Sept. 28 and 24
Gooderham.....	Oct. 2
Goderich.....	Sept. 17-19
Gordon Lake.....	Sept. 26
Gore Bay.....	Sept. 30, Oct. 1
Corrie.....	Oct. 4
Grand Valley.....	Oct. 21 and 22
Gravenhurst.....	Sept. 18 and 19
Guelph.....	Sept. 16-18
Haliburton.....	Sept. 25
Hamilton.....	Sept. 15-18
Hanover.....	Sept. 18 and 19
Harrow.....	Oct. 8 and 9
Harrowsmith.....	Sept. 11 and 12
Hepworth.....	Sept. 17 and 18
Highgate.....	Oct. 10 and 11
Holstein.....	Oct. 1
Huntsville.....	Sept. 23 and 24
Hymers.....	Oct. 2
Ilderton.....	Sept. 26
Ingersoll.....	Sept. 16 and 17
Jarvis.....	Oct. 7 and 8
Kagawong.....	Oct. 1 and 2
Keene.....	Oct. 7 and 8
Kemble.....	Oct. 7 and 8
Kemptville.....	Sept. 25 and 26
Kenora.....	Aug. 27 and 28
Kilsyth.....	Oct. 2 and 3
Kincardine.....	Sept. 18 and 19
Kingston.....	Sept. 17 and 18
Kinmount.....	Sept. 15 and 16
Lakefield.....	Sept. 16 and 17
Lambeth.....	Oct. 7
Langark.....	Sept. 12
Langton.....	Oct. 11
Lansdowne.....	Sept. 18 and 19
Leamington.....	Oct. 1-3
Lindsay.....	Sept. 18-20
Lion's Head.....	Oct. 9 and 10
Listowel.....	Sept. 16 and 17
Lombardy.....	Sept. 13
London (Western Fair).....	Sept. 5-13
Loring.....	Oct. 8
Lyndhurst.....	Sept. 16 and 17
Maberly.....	Oct. 2
Madoc.....	Oct. 7 and 8
Magnetawan.....	Sept. 29 and 30
Manitowaning.....	Sept. 25 and 26
Markdale.....	Oct. 14 and 15
Markham.....	Oct. 1-3
Marmora.....	Sept. 22 and 23
Marshville.....	Sept. 25 and 26
Massey.....	Sept. 25
Matheson.....	Sept. 23 and 24
Mattawa.....	Sept. 23
Maynooth.....	Sept. 17 and 18
Maxville.....	Sept. 16 and 17
McDonald's Corners.....	Sept. 26
Merlin.....	Sept. 25 and 26
McKellar.....	Sept. 22 and 23
Meaford.....	Sept. 30 and Oct. 1
Melbourne.....	Oct. 8
Merrickville.....	Sept. 18 and 19
Metcalfe.....	Sept. 16 and 17
Middleville.....	Oct. 3
Midland.....	Sept. 25 and 26
Mildmay.....	Sept. 29 and 30
Millbrook.....	Oct. 2 and 3
Milton.....	Oct. 7 and 8
Milverton.....	Sept. 25 and 26
Minden.....	Sept. 30
Mitchell.....	Sept. 16 and 17
Morrisburg.....	Aug. 5 and 6
Mt. Brydges.....	Oct. 3
Mt. Forest.....	Sept. 17 and 18
Murillo.....	Sept. 23 and 24
Napanee.....	Sept. 16 and 17
Newboro.....	Sept. 16 and 17
New Hamburg.....	Sept. 11 and 12
Newington.....	Sept. 16 and 17
New Liskeard.....	Sept. 25 and 26
Newmarket.....	Oct. 7-9
Neustadt.....	Sept. 16 and 17
Niagara.....	Sept. 16 and 17
Norwich.....	Sept. 16 and 17
Norwood.....	Oct. 14 and 15
Oakville.....	Sept. 25 and 26
Oakwood.....	Sept. 22 and 23
Odessa.....	Oct. 3
Ohswegen.....	Oct. 1-3
Onondaga.....	Oct. 6 and 7
Orangeville.....	Sept. 18 and 19
Oro.....	Sept. 16
Orono.....	Sept. 25 and 26
Oshawa.....	Sept. 8-10
Ottawa (Central Canada).....	Sept. 5-13
Otterville.....	Oct. 3 and 4
Owen Sound.....	Oct. 7-9
Paisley.....	Sept. 23 and 24
Pakenham.....	Sept. 22 and 23
Palmerston.....	Sept. 23 and 24
Paris.....	Sept. 25 and 26
Parkhill.....	Sept. 25 and 26
Parham.....	Sept. 24
Parry Sound.....	Sept. 24-26
Perth.....	Adg. 29-Sept. 1
Peterboro.....	Sept. 11-13

WINCHESTER
"Repeater"
SMOKELESS POWDER SHOTGUN SHELLS
 When it comes to getting a high grade shell at a reasonable price, the Winchester "Repeater" has the call among sportsmen who have tried all makes. Although moderate-priced, the "Repeater" is loaded with the best quality of powder and shot. The list of loads furnished in this shell cover most shooters' requirements, and all of them give a full measure of shooting satisfaction. Ask for Winchester Factory Loaded "Repeater," and look for the big W on the box. They are

HIGH QUALITY BUT MODERATE IN PRICE

I will again arrive in London during the middle of August with a very select shipment of

CLYDESDALE FILLIES
 and one or two
STALLIONS

These will either be sold privately or by auction as arranged and advertised later. This shipment will rank among the best to Canada this year and has been picked up throughout Scotland by myself, and I have paid great attention to the wants of Ontario farmers namely: size combined with quality and good blood. Anyone wishing any particular kind of animal would do me a favour to drop me a line on the appearance of this ad. and I will attend to their wants on a small commission.

Ben. Finlayson
 Thross, Stirling
 Scotia d

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

Clydesdales for Sale My first importation for 1913 landed in March. One dozen fillies of the highest prices during June and July. Write for particulars and prices or phone.
G. A. BRODIE - **NEWMARKET, ONT.**

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

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

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

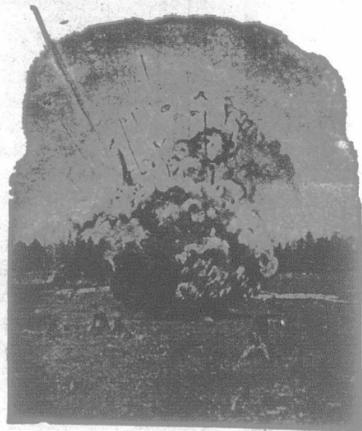
CLYDESDALES, PONIES, BULLS 2 Imported 3 year old Clyde fillies, 2 mares 4 years old, in foal. 3 ponies broken to ride and drive, safe and quiet for women and children. Bulls consist of 4, from 12 to 15 months old. All this stock for sale at reasonable prices. Myrtle C.P.R. and G.T.R. 38 miles East of Toronto.
(Blairgowrie Farm)
JOHN MILLAR JR., Ashburn

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

WHEN WRITING ADVERTISERS PLEASE MENTION
The Farmer's Advocate

TURN WASTE LAND INTO PROFIT

C X L



STUMPING POWDER

You are losing money every day by allowing stumps and boulders to occupy the richest and most productive parts of your farm. Why not remove them with C. X. L. STUMPING POWDER? The cheapest and quickest method known for clearing land. Write to-day for our Free Booklet.

Canadian Explosives, Limited

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Victoria, B. C.

THE AULD HERD AND PLEASANT VALLEY SHORTHORNS

We have females of all ages and of the best Scotch families for sale. Those interested should come and see us. Correspondence invited.

A. F. & G. AULD Eden Mills, Ont. Bell 'phone. Guelph or Rockwood Stns.

SHORTHORNS

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

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

SHORTHORNS AND CLYDESDALES

5 bulls from 8 to 15 months—3 roans and 2 reds. Females of all ages. 11 imported mares—4 with foals by their side, 5 three-year-olds, and 2 two-year-olds; all of the choicest breeding. Catalogue of Clydesdales mailed on application.

BELL 'PHONE. BURLINGTON JCT. STA. W. G. Pettit & Sons, Freeman, Ont.

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

Several heifers that are bred right and that will make great cows; some of them in calf now to my great breeding sire, Superb Sultana—75413—perhaps the greatest son of the great Whitehall Sultan—55649—that was imported by me and used so long in Mr. Harding's herd. I sell nothing but high-class cattle, but the price is within the reach of all. A few Clydesdales, Shropshires and Cotswolds always on offer. Local and Long Distance Telephone.

ROBERT MILLER, STOUFFVILLE, ONT

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

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

Willow Bank Stock Farm—Shorthorn Herd, Established 1855 The Grand imported Butterfly bull Roan Chief—60865—heads the herd. Young cows and heifers bred to him; also an exceedingly good lot of young bulls on hand, fit for service and at very reasonable prices. Some from imp. dams. JAMES DOUGLAS, Caledonia, Ont.

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

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

5 Shorthorn Bulls 5—We have for sale at moderate prices 5 Scotch Shorthorn bulls, including one of our herd bulls. Also a number of high-class heifers and heifer calves. A. J. HOWDEN & CO., COLUMBUS, ONT. Myrtle, G.T.R. & C.P.R. Long-distance 'phone

When Writing Please Mention Advocate

Petrolia.....	Sept. 18 and 19
Pictou.....	Sept. 24 and 25
Pinkerton.....	Sept. 19
Port Carling.....	Sept. 18
Port Hope.....	Oct. 7 and 8
Port Perry.....	Sept. 11 and 12
Powassan.....	Sept. 24 and 25
Prescott.....	Oct. 1 and 2
Priceville.....	Oct. 2 and 3
Providence Bay.....	Oct. 3
Queensville.....	Oct. 14 and 15
Rainham Centre.....	Sept. 23 and 24
Renfrew.....	Sept. 17-19
Richard's Landing.....	Sept. 30
Richmond.....	Sept. 17-19
Ridgetown.....	Oct. 7-9
Ripley.....	Sept. 23 and 24
Roblins Mills.....	Oct. 3 and 4
Rocklyn.....	Oct. 2 and 3
Rockton.....	Oct. 14 and 15
Rockwood.....	Oct. 2 and 3
Rodney.....	Oct. 6 and 7
Roseneath.....	Sept. 25 and 26
Rosseau.....	Sept. 24
Sarnia.....	Sept. 23 and 24
Sault Ste. Marie.....	Sept. 24-26
Scarboro (Agincourt).....	Sept. 24
Seaforth.....	Sept. 18 and 19
Shannonville.....	Sept. 20
Sheglanadah.....	Oct. 2 and 3
Shelburne.....	Sept. 23 and 24
Simcoe.....	Oct. 14-16
Smithville.....	Oct. 9 and 10
South Mountain.....	Sept. 11 and 12
South River.....	Oct. 7 and 8
Spencerville.....	Sept. 23 and 24
Springfield.....	Sept. 25 and 26
Sprucedale.....	Sept. 18 and 19
Stella.....	Sept. 30
Stirling.....	Sept. 25 and 26
Stratfordville.....	Sept. 17
Stratford.....	Sept. 18 and 19
Streetsville.....	Sept. 24
St. Mary's.....	Sept. 23 and 24
Sunderland.....	Sept. 16 and 17
Sunbridge.....	Sept. 30 and Oct. 1
Sutton.....	Sept. 25 and 26
Tamworth.....	Sept. 17
Tara.....	Sept. 30 and Oct. 1
Tavistock.....	Sept. 15 and 16
Teeswater.....	Oct. 7 and 8
Thamesville.....	Sept. 29 and Oct. 1
Theford.....	Sept. 30 and Oct. 1
Thessalon.....	Sept. 25
Thorold.....	Sept. 23 and 24
Tillsonburg.....	Sept. 30 and Oct. 1
Tiverton.....	Sept. 18
Toronto (Can. National).....	Aug. 23-Sept. 8
Tweed.....	Oct. 1 and 2
Underwood.....	Oct. 7
Utterson.....	Sept. 30 and Oct. 1
Vankleek Hill.....	Sept. 17-19
Verner.....	Sept. 22 and 23
Wallaceburg.....	Sept. 30 and Oct. 1
Wallacetown.....	Sept. 25 and 26
Walter's Falls.....	Sept. 16 and 17
Warkworth.....	Oct. 2 and 3
Waterdown.....	Oct. 7
Warren.....	Sept. 17 and 18
Waterford.....	Oct. 9
Watford.....	Oct. 7 and 8
Wellandport.....	Oct. 3 and 4
Wellesley.....	Sept. 9 and 10
Wheatley.....	Sept. 29 and 30
Wiarion.....	Sept. 23 and 24
Williamstown.....	Sept. 17 and 18
Winchester.....	Sept. 2 and 3
Windham Centre.....	Oct. 7
Windsor.....	Sept. 15-18
Wingham.....	Sept. 25 and 26
Woodbridge.....	Oct. 14 and 15
Woodstock.....	Sept. 17-19
Woodville.....	Sept. 12
Wooler.....	Sept. 5
Wyoming.....	Sept. 27
Zenhyr.....	Oct. 7
Zurich.....	Sept. 17 and 18

Boo Spavin

Remove the lumps and bumps—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughbred Spavin, Curbs, Dipped Heels, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be misused. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser

Describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ont.

DR. PAGE'S ENGLISH SPAVIN CURE

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hocks, Strains or Bruises, Thick Neck from Distemper, Ringworm on cattle, and to remove all unnatural enlargements.

This preparation, unlike others, acts by absorbing the ing 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 Street E., Toronto, Ont.

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

Aberdeen-Angus of Show Form and Quality. For this season my offering in young bulls and heifers are topers, every one. Show-ring form and quality bred from show-winners. T. B. BROADFOOT, Fergus, Ont., G.T.R. and C.P.R.

Spring Valley Shorthorns

A few of the best young bull prospects we ever had. They will please you. Will sell females too. Visit the herd; we think we can suit you. Particulars on application.

KYLE BROS., R. R. No. 1, Drumbo, Ont.

SHORTHORNS!

Bulls of useful age all sold. Would appreciate your enquiry for females. Catalogue and list of young animals.

N. Cargill & Son, Cargill, Ont.

Oakland—50 Shorthorns—Dual Purpose. Red Baron—\$1945— is for sale. He is one of our stock bulls, three-year-old and of an excellent milking family; also a good one 20 months; both red in color; good cattle and no big prices.

JNO. ELDER & SON, Hensall, Ont. P.S.—Scotch Grey—72692—still heads the herd.

Shorthorns, Cotswolds, Berkshires

In Shorthorns, am offering a number of cows and young calves. In Cotswolds, have a lot of extra good lambs coming on for fall trade. Nothing to offer at present in Berkshires.

CHAS. E. BONNYCASTLE, P.O. and Station, CAMPBELLFORD, ONT.

The Manor Shorthorns

No bulls, except calves, for sale. Have ten of those, from 7 months to a few days. Also heifers got by, and cows in calf to, one of the good bulls of the breed. Inspection solicited.

J. T. GIBSON, ---: Denfield, Ont.

CEDARDALE SHORTHORNS

All bulls sold out some time ago, but have still several fine heifers and good cows for sale of rare value, Scotch-bred and of good individual type. Heifers in calf and being bred to our superior stock bull. DR. T. S. SPROULE, Markdale, Ont.

Spruce Lodge Shorthorns & Leicesters Present offering: Young bulls and heifers from grand milking dams. Also a choice lot of Leicester rams and ewe lambs, and ewes of all ages bred to imp. rams. W. A. Douglas, Tuscarora, Ont.

Clover Dell Shorthorns

Some promising young bulls for next year's service. Also a limited number of females of dairy breeding at reasonable prices. L. A. WAKELY, Bolton, Ontario.

Gossip.

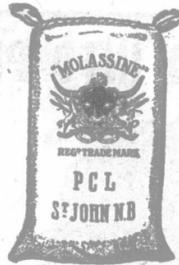
At an auction sale last month of Shorthorn cattle, from the herds of Lord Middleton and Capt. Behrens, two of the best herds in Yorkshire, good prices were obtained. The cattle were practically all of the old Bates strains of blood upon which the Scotch top had been recently introduced, mainly through the use of Illustrious Count, out of the same cow as Earl Manvers' Royal champion. Duke of Kingston 2nd, by Laverder Royal. Lord Middleton's 65 head averaged \$350, the highest price being \$1,600 for the red yearling bull, Birdsall Champion. Two others of his bulls brought \$1,300 and \$1,500, respectively. The highest price for a female was \$850 for his red five-year-old, Duchess of Birdsall 11th. Capt. Behrens' 35 head averaged \$225, the highest price for his consignment being \$700 for the yearling heifer, Swinton Secret.

ROYAL WARRANT



After supplying the Royal Stables for several years, His Majesty King George V has granted a Royal Warrant to the makers of **MOLASSINE MEAL**.

Sun-dried Grass Won't Give Good Milk



In early Spring, the milk from your cows may be plentiful and high in quality. But the summer sun dries all the juicy sweetness from the grass and it is an impossibility for the cows to derive the requisite nourishment from it. The flow of milk fails both in quality and quantity, your cows lose weight and you lose money. This loss, which amounts to a large sum yearly, can be easily saved. Instead of depending on the grass alone as a nourishment, supplement it with "MOLASSINE MEAL"—it will increase the flow and quality of the milk—make the cows actually gain weight—keep them in better health and make yourself much richer. The best food known to science to-day for milch cows, cattle, horses or any livestock for all year feeding is

MOLASSINE MEAL

Made in England

By feeding it as a regular ration, it supplements the needed nourishment of the grass or other foods and enables the cows to retain their fat sleekness—insures good health and keeps the flow and quality of the milk high as in the good grazing days. "MOLASSINE MEAL" is a good food. It builds up your cattle, horses and all other livestock—it keeps the stomach and the blood clean and pure and also enables the cows to derive the full nutrition from other foods. Feed "MOLASSINE MEAL" regularly and your animals will be free from worms, intestinal troubles and other kindred animal diseases which claim so many victims every year. "MOLASSINE MEAL" is guaranteed by the makers to keep in good condition for any length of time. Put up in 100-lb. bags. Begin to feed to-day. If your dealer cannot supply you, write us.



MOLASSINE

Co. of Canada, Limited

ST. JOHN, N.B. MONTREAL TORONTO

Look for this Trade Mark



(on every bag)

Wolves and Buffalo.

EXTERMINATION OF WOOD-BUFFALO THREATENED BY TIMBER-WOLVES.

Investigations carried on by the Forestry Branch of the Dominion Government have proven conclusively that several large herds of wild buffalo are still to be found in the hilly country on the northern boundary of Alberta, in the neighborhood of the Slave River. A party working under the direction of A. J. Bell, the Government agent at Fort Smith, made a study of the habits, and obtained photographs of these buffalo, which are identical in appearance with the former buffalo of the plains, the remnants of which were forced to seek shelter in the timbered fastnesses of the north.

These wood-buffalo, when fully grown, are able to defend themselves against their natural enemies, but in the winter, before the young yearlings have attained full strength, they frequently fall victims to the timber-wolves. Bands of these wolves hover around the flanks of the buffalo herds as they pass in single file from one feeding-ground to another, waiting for the opportunity to cut off a young animal and drive it from the beaten trail into the deep snow, where it is unable either to escape or to defend itself.

Partly eaten carcasses were found by the investigating party, which clearly indicated that the wolves were the cause. These great timber-wolves are of large size, and are very numerous in this region, where they menace the existence, not only of the wood-buffalo, but of other game as well. The Dominion Government already offers a bounty of twenty dollars apiece for their destruction, but, so sparsely inhabited is the region, and so clever are the wolves in avoiding traps, that the present bounty has had little effect in reducing their numbers. It is possible that the Dominion Government will raise the bounty here to forty dollars in the hope of ridding the regions of these pests and of preventing the extinction of the last wild bison in existence.

Forests Have a Beauty Value.

The International Forestry Congress, to which representatives came from every continent on the globe and which was probably the largest Forestry Congress ever held, met in Paris for the expressed purpose of studying economic and technical forestry problems, and of promoting legislative and administrative reforms in order to secure the conservation of the forests, the prevention of soil erosion and the reforesting of waste lands.

Such subjects as the right of the state to regulate private forest property, or to expropriate misused and denuded forest lands to insure public safety from floods, were discussed from an international view-point. This state right has long been recognized in Europe, where lands on watersheds can be expropriated unless managed by the owner according to strict Government regulations and an adequate forest cover maintained. The Federal Government of the United States has also recently given expression to this right by the Week's Bill, passed in 1911 for the acquisition of lands necessary to protect the watersheds and navigability of navigable rivers. By exerting promptness and foresight, the Dominion Government has been able to forestall private occupation of the forest areas now reserved on the east slope of the Rockies, and on other important watersheds, but, should the necessity arise, its legal right to expropriate private land for the public benefit, seems to be borne out by the policy followed by other countries.

A feature of striking significance in this Forestry Congress at Paris, international in representation and international in its scope, was that this Con-

PRESIDENT SUSPENDER
NONE SO EASY

RICE'S PURE SALT

can always be depended upon for all purposes. Write us for prices.

North American Chemical Co., Limited, Clinton, Ont.

Registered Seed Wheat for sale, Dawson Golden Chaff, grown under the rules of Canadian Seed Growers' Association. Apply to: A. W. Scheffele, Heidelberg, Ont.

Dungannon Ayrshires—For high-class Ayrshires write us. We can sell mature cows, heifers, calves, and one 4 mos. old bull calf; also the unbeaten stock bull, Chief of Dungannon 27159, and Yorkshires.

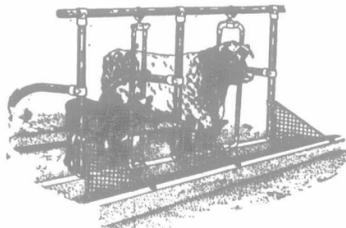
W. H. FURBER, Cobourg, Ont. L.-D. Phone.

High-class Ayrshires—If you are wanting a richly-bred young bull out of a 50-lbs-a-day and over cow, imported or Canadian-bred dam or sire, write me. Females all ages. Prices are easy.

D. A. MACFARLANE, Kelso, Que.

Please mention "The Farmer's Advocate."

Stable Your Cattle the Superior Way



WHEN you equip your stables, make sure that you get my SUPERIOR fittings, send for my big free book. I want you to know about my SUPERIOR ADJUSTABLE STANCHION, that you can adjust to tie from a calf to the largest steer in your stable, and my six other designs of stanchions, cow stalls, cow pens, calf stanchions and pens, water bowls, horse stalls and horse stall fittings. My SUPERIOR Sanitary Steel Stable Fixtures are the most modern made, and do not cost any more than the ordinary kind. Ask your agent about SUPERIOR STABLE EQUIPMENT.

Get my big free book and prices before you buy. Send now to

GEO. P. MAUDE, Manager

SUPERIOR BARN EQUIPMENT CO., Fergus, Ontario

Ayrshires and Yorkshires



75 Hillcrest Ayrshires

Our Ayrshires are selected and bred for big production, and showing quality. Many of the heifers we are offering are grand-daughters of the two Ex-World's Champions, Jean Armour, Rec. 20,174 lbs, and Primrose of Tanglewyld, Rec. 16,195 lbs.

F. H. HARRIS, Mount Elgin P. O. & Stn.

City View Herd of Record of Performance Ayrshires

One two-year-old, one yearling, one calf, males only, for sale, from R. O. P. cows, and sired by bulls from R. O. P. dams.

JAMES BEGG & SON,

R. R. No. 1, ST. THOMAS, ONT.

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gress was conceived, organized and brought to a successful fruition by the Touring Club of France, a body having no direct interest in the promotion of Forestry. This club, composed of some of the most influential men in France, realized the esthetic value of the forest to the nation—a point which is almost entirely overlooked in Canada at present. If in Canada, as in Europe, our rail-ways and national highways were bordered by beautiful tracts of forest-land, instead of the bare, barren, fire-swept wastes so prevalent at present, the money value of such an influence on the mind of the tourists would not be the least advantage to be derived from such forests.

Trade Topic.

This year the "Bissell" Exhibit of Disk Harrows and Steel Land Rollers will be grouped with the John Deere Plow Co. Farm Machinery, at the Toronto Exhibition. Friends of the Bissell Company will remember the location. This will be the 25th annual exhibit at Toronto Fair by T. E. Bissell without a break, which is a pretty good record for attendance.

Sheep and Hogs at Brandon.

Eastern exhibitors won many prizes at Brandon's Dominion exhibition in the classes for sheep and hogs.

There were 240 entries in the sheep classes, and there were few entries; but were of a fine type, making the best exhibit of sheep that will be seen in the West this year, and in but a couple of breeds was there a lack of competition. T. A. Cox was the only exhibitor of Hampshire Downs and Cotswolds, while in Shropshires he took all awards except fifth place in aged rams, which went to John Campbell, of Brandon.

Suffolks.—Awards:

Ram, aged—1. J. D. McGregor; 2 and 3, Jas. Bowman.

Shearling—1, 2 and 4, J. D. McGregor; 3, James Bowman.

Ram lamb—1, 3 and 4, J. D. McGregor; 2, Jas. Bowman.

Champion ram—J. D. McGregor.

Aged ewe—1, 2 and 4, J. D. McGregor; 3, Jas. Bowman.

Shearling ewe—1, 3 and 4, J. D. McGregor; 2, Jas. Bowman.

Ewe lamb—1, 2 and 3, J. D. McGregor.

Champion ewe—J. D. McGregor.

Pen. ram, two ewes and two ewe lambs, 1, J. D. McGregor; 2, Jas. Bowman.

Oxfords.—The awards were:

Ram, aged—1 and 2, P. Arkell; 3, W. J. Mortson; 4, O. Brown.

Ram shearling—1, 2 and 3, P. Arkell; 4, W. J. Mortson.

Ram lamb—1 and 2, P. Arkell; 3, O. Brown; 4, W. J. Mortson.

Champion ram—P. Arkell.

Ewe, aged—1, 2 and 3, P. Arkell; 4, W. J. Mortson.

Ewe, shearling—1, 2, 3 and 4, P. Arkell.

Ewe lamb—1, 3 and 4, P. Arkell; 2, O. Brown.

Champion ewe—P. Arkell.

Pen. ram, two ewes and two ewe lambs—1 and 2, P. Arkell.

Leicesters.—In Leicesters, A. B. Potter, Langbank, and T. A. Cox, Brantford, were exhibitors.

The awards were:

Ram, aged—1. T. A. Cox; 2, A. B. Potter.

Ram shearling—1, T. A. Cox; 2, A. B. Potter.

Ram lamb—1, 3 and 4, A. B. Potter; 2, T. A. Cox.

Champion ram—T. A. Cox.

Ewe, aged—1, T. A. Cox; 2, 3 and 4, A. B. Potter.

Ewe, shearling—1, T. A. Cox; 2 and 3, A. B. Potter.

Ewe lamb—1 and 3, A. B. Potter; 2 and 4, T. A. Cox.

Champion ewe—T. A. Cox.

Pen—1, T. A. Cox; 2, A. B. Potter.

Southdowns.—In Southdowns, Robt. McEwen, Byron, and T. A. Cox, Brantford, exhibited. The display was good.

A Good Silo soon pays for itself whether you are keeping cows for dairy purposes or you are a stock raiser.

It has repeatedly been stated by some of the best posted authorities on farm economics that even if a dairyman or stock raiser had to buy a silo every year he would still be money ahead.

There is absolutely no question about the advantage of erecting a silo. It insures for the dairyman a larger milk flow in the winter or during dry weather and takes the place of grass for steers or sheep during drought.

If you are considering the silo question, a little investigation must convince you that the IDEAL GREEN FEED SILO will give you the best service and keep your silage in the best condition.

All our silo staves are thoroughly air dried and then saturated with a solution which prevents rot and decay and adds many years to the life of the silo.

You will find our new silo book contains much information about the erection of silos and the many advantages of silage, and we will be very glad to send this book to any cow owner upon request.

DE LAVAL DAIRY SUPPLY CO., Limited
LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA
Exclusive Canadian distributors of the "World Standard" De Laval Cream Separators
MONTREAL PETERBORO WINNIPEG VANCOUVER



IDEAL GREEN FEED SILOS

Are highly recommended by H. Brault, St. Urbain, Que.

Allow me to give you some news regarding my Ideal Green Feed Silo, which gives entire satisfaction.

I have used ensilage since the 15th November last, and I am well pleased with the advantages and benefits derived from same. If every farmer knew of the advantages of this silo, and the money they lose on their cattle without one, they would be much surprised.

This year I have sold fifteen tons of hay and ten tons of straw, which I would not have sold had I not had a Silo, and I think that I will save enough this year to pay for my Silo.

FAIRVIEW FARMS HERD

REMEMBER:—Pontiac Korndyke sired the bull that sired the new 44-pound cow. Do you want a sire to use that has such transmitting ability? If so, secure a son of Pontiac Korndyke, or Rag Apple Korndyke 8th, the strongest bred Korndyke bull in the world.

E. H. DOLLAR, Heuvelton, N. Y. Near Prescott, Ont.

SUMMER HILL HERD OF HOLSTEIN CATTLE

Do you realize that you must have another serviceable bull soon? Better go down to Hamilton right away and see these well-bred fellows with high official backing, that you can buy well worth the money from

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FOUR HOLSTEIN BULL CALVES out of deep-milking cows
Animal Husbandry Department, O.A. College, Guelph

LAKEVIEW HOLSTEINS

Herd headed by Count Hengerveld Fayne De Kol, by Pieterje Hengerveld's Count De Kol out of Grace Fayne 2nd. He has 12 daughters already in the Record of Merit and many more to follow. Junior sire.—Dutchland Colantha Sir Mona, by Colantha Johanna Lad out of Mona Pauline de Kol (27.18 butter) the dam of one daughter over 30-lbs. and one over 27-lbs; also the dam of the World's champion junior three-year-old for milk production. A few bull calves for sale. E. F. OSLER, Bronté, Ont.



Holsteins and Yorkshires Just now we are offering a few cows, also some sows ready to breed.
A. WATSON & SONS, ST. THOMAS, Ontario.
L. D. 'PHONE FINGAL, VIA ST. THOMAS.

Come and Inspect, or write, should you want stock that are great producers in milk and high percentage of butter-fat, combined along with show-ring conformation. No bulls of any age for sale at present.
Oxford Co., G. T. R. M. L. HALEY & M. H. HALEY, Springford, Ont.

Evergreen Stock Farm High-class Registered Holsteins
For sale: A few choice young bull calves and females, all ages; good enough for foundation stock.
A. E. HULET, Norwich, Ontario.

BRAMPTON JERSEYS The spring trade is on; we are doing the largest business we ever did, chiefly with our old customers; young bulls and heifers from sires with tested daughters
Several imported cows and bulls for sale. Canada's Greatest Jersey Herd. B. H. Bull & Son, Brampton, Ont.

Please Mention The Advocate

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You have got to feed your cows in the winter time whether they are milking or not, so why not arrange to have most of them earning the high price we pay for winter milk and cream.

We take all that you produce. Furnish cans for milk. Pay on the 10th of each month.

Winter contracts start November 1st. Make up your mind at once. We are receiving applications now. Write:

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Bred by Prince Aggie Mechthilde. For sale at present: Choice bull calves, from Record of Merit dams with records up to 20-lbs. butter in 7 days. All sired by our own herd bull. Prices reasonable.

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Gleadow Stock Farm 2 YEARLING BULLS FOR SALE, out of big milking strains; at low figure for quick sale. THOS. B. CARLAW & SON, WARKWORTH, ONT. Campbellford Station.

Holstein—Fit for service, a brother to sire Canadian-bred Champion Queen Butter Baroness, 33.17 lbs. butter in seven days. His dam the only cow in Canada with two granddaughters averaging 31.71 lbs., and six averaging 27.56 lbs. in seven days. Wm. A. Rife, Hespeler.

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Our present offering is a number of superior OXFORD DOWN YEARLING AND RAM LAMBS for flock headers, by our imported Royal winning rams. Also ninety field rams and eighty ewes, either by imported sires or g. sires imported. Also fifteen yearling HAMPSHIRE ewes.

HENRY ARKELL & SON, ARKELL, ONT. Phone Guelph 240-2.

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We never had as choice a lot of lambs as this year. Our offering: Shearling ewes, ewe lambs, ram lambs and the stock ram Imp. Hamtonian 279th. WM. BARNET & SONS, Living Springs, Ontario. Phone

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc., write to John Cousins & Sons, Buxton Vista Farm, Harriston, Ont.

Tower Farm Oxford Downs—16 shearling rams, (1 imported) 3-year-old ram, ewes, rams and ewe lambs; all from imported and prize-winning stock. A quantity fitted for show. E. Barbour, Erie P. O. and Sta. L.-D 'phone

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Both sexes and all ages, from imported stock. Prices reasonable. G. A. POWELL, ARVA, ONTARIO. Four miles north of London.

Prize Chester White Swine-Winners High-class type and quality, bred from winners and champions. Young stock both sexes, any age, reasonable prices. W. E. Wright & Son, Glanworth P. O., Ont.

Poland-China Swine and Shorthorns—Choice young stock, either sex, both breeds, to offer. Pairs not akin. Prices easy. GEO. G. GOULD, Edgar's Mills, Ont. Essex Co.

PINE GROVE YORKSHIRES
Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction. Joseph Featherston & Son, Streetville, Ont.

DUROC JERSEY SWINE
Twenty-five sows bred for fall farrow; a few boars ready for service; also one Jersey bull, 11 months, and two bulls, 6 months old, out of high-producing dams. Mac Campbell & Sons, Northwood, Ont.

HE OBEYED ORDERS.
Murphy was a new cavalry recruit and was given one of the worst horses in the troop. "Remember," said the sergeant, "no one is allowed to dismount without orders." Murphy was no sooner in the saddle than the horse kicked and Murphy went over his head. "Murphy," yelled the sergeant, when he discovered him lying breathless on the ground, "you dismounted." "I did." "Did you have orders?" "I did." "From headquarters?" "No, sir; from hindquarters."

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CLEANS THE HANDS
No matter how soiled they are. Grease, Ink and all other stains come off with Snap. Leaves the hands soft and white. Antiseptic.
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Awards were as follows:

- Ram, aged—1 and 3, R. McEwen; 2, T. A. Cox.
- Ram, shearling—1 and 2; T. A. Cox; 3 and 4, R. McEwen.
- Ram lamb—1 and 3, R. McEwen; 2, T. A. Cox.
- Ewe, aged—1 and 3, T. A. Cox; 2 and 4, R. McEwen.
- Ewe, shearling—1, 2, 3 and 4, T. A. Cox.
- Ewe lamb—1, 2 and 4, R. McEwen; 3, T. A. Cox.
- Pen—1, T. A. Cox; 2, R. McEwen.
- Dorset Horns.—J. A. Chapman; Hayfield, and T. A. Cox exhibited Dorset Horns. Chapman's flock is outstanding and always a favorite. T. A. Cox showed only in a couple of classes, all championships going to J. A. Chapman.

HOGS.

Running well over 800 entries, the hog exhibit was said by many to be a record in this regard for numbers in Western Canada, and the quality of the display was certainly high class. A. C. Hallman, Breslau, Ont., made the awards.

Yorkshires.—Yorkshire hogs made the major part of the hog show with close to 200 entries. Exhibitors were A. D. MacDonald & Son, Napinka; A. B. Potter, Langbank; W. J. Mortson, Fairlight; A. G. English and W. H. English, Harding; John Campbell, Brandon; G. R. Curtis, Chater; J. A. McDonald, Napinka; W. E. Tees, Lacombe and J. E. Brethour, Burford.

Right at the start the judge sprang a surprise by placing A. D. McDonald & Son's aged boar down to third place, as he had been picked by practically all the hogmen for champion hog and it looked indeed as though a mistake had been made, as McDonald's hog is a rare good individual.

- Awards were:
- Boar, aged—1, J. E. Brethour; 2, A. B. Potter; 3, A. D. McDonald & Son; 4, W. E. Tees.
 - Boar, one year—1, W. E. Tees; 2, W. J. Mortson; 3, A. G. English; 4, J. A. McDonald.
 - Boar, over six months—1, 2 and 3, W. J. Mortson; 4, W. E. Tees.
 - Boar of calendar year—1, W. E. Tees; 2, J. A. McDonald; 3, A. D. McDonald & Son; 4, A. B. Potter.
 - Sow, aged—1, J. E. Brethour; 2, A. B. Potter; 3, W. E. Tees; 4, A. D. McDonald & Son.
 - Sow, one year—1 and 2, J. E. Brethour; 3, A. D. McDonald & Son; 4, John Campbell.
 - Sow over six months—1, W. H. English; 2 and 3, J. E. Brethour; 4, A. D. McDonald.
 - Sow of calendar year—1 and 3, W. H. English; 2, J. E. Brethour; 4, W. E. Tees.
 - Sow and litter—1, A. B. Potter; 2, W. H. English; 3, A. D. McDonald & Son; 4, A. G. English.

J. E. Brethour got the championship on aged boar, with W. J. Mortson reserve, while J. E. Brethour got both championship and reserve on sows.

Berkshires.—A splendid exhibit of Berkshires was out with Manitoba breeders putting up a very fine display of hogs. Exhibitors were McGregor & Bowman, Forrest; R. L. Lang, Oak Lake; C. W. Weaver, Deloraine; A. M. Shuttleworth, Brandon, and T. A. Cox, Brantford.

- Awards were:
- Aged boar—1 and 3, T. A. Cox; 2, McGregor & Bowman.
 - Boar, one year—1 and 3, T. A. Cox; 2, R. L. Lang.
 - Boar, over six months—1, A. M. Shuttleworth; 2, C. W. Weaver; 3 and 4, T. A. Cox.
 - Boar of calendar year—1, 3 and 4, C. W. Weaver; 2, T. A. Cox.
 - Breeding sow, aged—1 and 2, C. W. Weaver; 3, T. A. Cox; 4, McGregor & Bowman.
 - Sow, one year—1, 2 and 3, T. A. Cox; 4, C. W. Weaver.
 - Sow over six months—1 and 3, C. W. Weaver; 2 and 4, T. A. Cox.
 - Sow of calendar year—1, T. A. Cox; 2, 3 and 4, C. W. Weaver.
 - Sow with litter—1, T. A. Cox; 2, R. L. Lang.
 - Champion boar—T. A. Cox; reserve, T. A. Cox.
 - Champion sow—T. A. Cox; reserve, C. W. Weaver.

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This fall I have the best lot of lambs I ever bred. I have plenty of show material, bred from the best stock procurable in England. Order early if you want the best. Ram lambs, shearlings and ewe lambs. Yorkshires of all ages.

J. A. CERSWELL, BOND HEAD P.O., ONTARIO
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Shropshires and Cotswolds My importation of 60 head will be home August 1st. In both breeds. I also have 50 home bred yearling rams and ewes, field rams and ewes of Will be pleased to hear from you if interested in sheep as "No business no harm" is my motto 3 miles. JOHN MILLER, Brougham, Ont. Pickering Stn. G.T.R. 7 miles. Claremont Stn., C.P.R.

GLENALLAN SHROPSHIRE—We have something choice of lambs, sired by a Cooper ram. Flock headers of highest quality a specialty Glenallan Farm, Allandale, Ont. R. MOORE, Manager

Morrison Tamworths and Shorthorns—bred from the prize-winning herds of England; have a choice lot of young pigs, both sexes, pairs not akin; and also the dual-purpose Shorthorns. Satisfaction guaranteed. C. CURRIE, MORRISTON, Ont.

SWINE OF ALL BREEDS FOR SALE
Yorkshires, Tamworths, Berkshires, Hampshires, Chester Whites, Poland-Chinas, and Duroc-Jerseys. I have constantly on hand both sexes of all ages. Show stock a specialty. JOHN HARVEY, Frelighsburg, Que.

Woodburn Berkshires are founded on the famous old Sally tribe, noted for big size, length of body and strength of bone. We can supply pairs and trios not akin. Show stock a specialty. Also high-class Cotswolds, ram and ewe lambs, shearlings. E. BRIEN & SON, RIDGETOWN, ONT.

ELMHURST LARGE ENGLISH BERKSHIRES
Present offering Select sows. Choice boars, ready for service; also younger stock the get of Duke of Somerset, imp., and out of imported dams. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, Cainsville P.O. Langford Station. Brantford and Hamilton Radial.

Large White Yorkshires Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin. best British herds. Write or call H. J. DAVIS, Woodstock, Ont. Long-distance 'phone. C.P.R. and G.T.R.

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is built of hollow vitrified clay blocks. It cannot burn, cannot be blown over, will last a lifetime without a cent for repairs. Glazed sides keep silage sweet and palatable. Any mason can build it, and it will give an air of progress and prosperity to your farm that will be worth much to you.

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WE have every confidence in our abilities to please our Customers, hence our remarkable offer of Six Months' Free Approval. Examine the articles you may choose at your own convenience, in your own home, and if you are not delighted and fully satisfied with the high quality and exceptional value, return them to us within six months and we will immediately return your deposit.

May we solicit a trial order? Absolute satisfaction guaranteed or money returned in full.

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- \$3.75** Field, Race, or Marine Glasses. \$20. Military Binocular (by Lefaiet), as supplied to officers in the Army and Navy; 10 achromatic lenses; 50 miles range; shows bullet mark at 1,000 yds.; saddle made case; great bargain; sacrifice, \$3.75.
- \$5.25** Powerful \$28 Binocular Field Glasses (by Chevalier); 10 lens magnification power, brilliant definition, over 60 miles range, great depth of focus, large field of view; adjusted to the highest degree of scientific accuracy; in saddle made sling case; tremendous bargain; sacrifice, \$5.25.
- \$9.50** Powerful \$50 Double-Draw Binoculars, 12 lens magnification power (by Lumiere), as supplied to H. R. H. the Crown Prince of Greece; most powerful glass made; name of ship can be distinctly read five miles from shore; quick focus, brilliant field of view, colourless achromatic crystal lenses, enhanced stereoscopic effect, great penetration power; in solid brown English leather case; sacrifice, \$9.50.
- \$3.25** Gent's heavy 18-ct. Gold-cased Keyless Lever Hunter Watch, improved action (John Forrester, London); 10 years' warranty; absolutely perfect timekeeper; also Double Curb Albert, same quality with handsome Compass attached; all quite indistinguishable from new; complete, sacrifice, \$3.25.
- \$3.25** Lady's handsome 18-ct. Gold-cased Keyless Watch, improved action (Allen & Co., London); exact timekeeper; 10 years' warranty; also long Watch Guard, elegant design, same quality; together, sacrifice, \$3.25.
- \$3.75** Rich, dark sable brown Fur, 8 ft. long; Granville Stole, deep shaped collar, beautifully trimmed, 12 tails and heads; large Granny Muff matching; together, \$3.75.
- \$5.75** (Worth \$25). Real Russian Furs. Princess Stole, trimmed with head and tails at back and on shoulders; also large animal Muff, with heads and tails hanging; in perfectly new condition; together, great sacrifice, \$5.75.
- \$3.25** Gent's fashionable Double Albert, 18-ct. Gold (stamped) filled, curb pattern, heavy solid links; sacrifice, \$3.25.
- \$3.75** Lady's handsome \$16 18-ct. Gold, hall-marked, 5-Stone Half-hoop real Diamond Ring; perfectly matched stones; fine quality; wonderful bargain; sacrifice, \$3.75.
- \$4.75** Lady's \$25 18-ct. Solid Gold, hall-marked, Diamond and Sapphire Doublet Half-hoop Ring, claw setting, large faultless stones; sacrifice, \$4.75.
- \$16.50** Lady's \$70 5-Stone Diamond and Sapphire Half-hoop Ring, 18 ct. Gold, Government hall-marked, claw setting, containing two large round diamonds of dazzling whiteness and three beautiful sapphires of richest quality; \$16.50.
- \$3.25** (Worth \$10). Eight superfine quality Chemises, Knickers, and Petticoats; magnificent parcel; sacrifice, \$3.25.
- \$5.75** Lady's \$30 Solid Gold English, hall-marked, Keyless Watch, highly finished jewelled movement, exact timekeeper, richly engraved; 12 years' warranty; \$5.75.
- \$17.50** Magnificent Gent's \$70 Single Stone Diamond Ring, exceptionally fine pure white stone, perfect in every respect, mounted in 18-ct. Gold, Government hall-marked, claw setting; sacrifice, \$17.50.
- \$4.25** Sheffield Cutlery; \$20 Service of 12 Large, 12 Small Knives, Carvers and Steel, Crayford ivory handles; \$4.25.
- \$5.75** Lady's \$30 Solid Gold long Watch Guard, handsome and very stylish in pattern, stamped, in faultless and new condition; sacrifice, \$5.75.
- \$13.75** Gent's magnificent \$55 Solid Gold English, hall-marked, Keyless Lever, Centre Seconds, Chronograph Stop Watch, exam. by celebrated watchmaker (W. Russell, London); jewelled movement, perfect reliability in any climate in the world; timed to a minute a month; 20 years' warranty; 6 months' trial; great bargain; sacrifice, \$13.75.
- \$15** Lady's magnificent \$60 Diamond and Sapphire Cluster Ring, 18-ct. Gold, hall-marked; there are ten white and faultless diamonds surrounding a superb sapphire of richest quality; to appreciate the full beauty of this Ring it must be seen. Sacrifice, \$15.
- \$11.75** Powerful \$65 4-draw Brass Telescope (by Lemaitre, Paris), covered black morocco, with brass cap and slide ends, 3-in. diameter object glass, perfect definition, over 70 miles' clear range; a more powerful glass could not be purchased, specially adapted to the use of coastguards and astronomers; new condition; sacrifice, \$11.75.
- \$24.50** Finest quality \$30 Hammerless Breechloader Gun, by renowned maker, Anson & Deeley pattern; double barrelled, interchangeable 12-bore quadruple cross-bolt action; automatic safety bolt; steel barrels; left choke. This Gun is a really first-class weapon. Sacrifice, \$24.50.
- \$7.50** Baby's Long Clothes, superfine quality, magnificent \$25 parcel, 82 articles, everything required; beautiful garments; the perfection of mother's personal work; never worn; great sacrifice, \$7.50.
- \$6.50** Valuable Violin (worth \$35), perfect condition, labelled Stradivarius Cremona, 1721; rich mellow tone, with Bow and Case, suit professional or soloist; \$6.50.
- \$3.25** (Worth \$20). Choice Expanding Watch Bracelet; finest workmanship, most successful ever invented, will fit and grip any wrist, thereby avoiding all vibration and ensuring perfect time-keeping. 18-ct. Gold-cased; 6 months' trial; sacrifice, \$3.25.
- \$6.50** Gent's \$20 fashionable Dark Grey Tweed Jacket Suit (by Stroud, High-class Tailor); splendid quality, latest West End cut and finish, never worn; breast 39 in., waist 35 in., length 32½ in.; \$6.50.

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Think what these prices mean—for the car that has stood the test: Runabout \$600; Touring Car \$650; Town Car \$900—f. o. b. Walkerville, Ont., with all equipment. Get catalogue and particulars.

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Twelve Acres a Day, Easily

THE TOLTON PEA HARVESTER

is not a complicated machine, but an ingenious device that may be readily attached to any mower in a few moments. The TOLTON PEA HARVESTER is quick, labor-saving and efficient. It bunches peas together and harvests as clean as can be done with a scythe, and as quickly as a mower cuts hay, doing from ten to twelve acres a day with ease.

Send for descriptive catalogue, and let us tell you who our agent is near you. WRITE TO-DAY.

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When Lightning Strikes

a building the electricity is trying to get from the clouds, from which it is discharged, into the moist earth. If you impede its progress or block its way it is going to "dam up" and heat, and may burn your buildings. If you are equipped with "Universal" Copper Conductors you help the current to flow into the ground without harming anything.

Don't Worry!

if you have "Universal" Lightning Rods on your buildings. Should they be struck, the Rods will carry the electricity. They are built to do the work.

Your buildings are valuable. They could not be readily replaced. They are in danger! Why not Rod them with "Universal" Rods? Why not DO IT NOW?

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Write us for literature and samples. (Mention The Advocate)
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YOUR money in a "Monarch" Engine brings you the best carburetor ever put on a farm engine. This carburetor is specially designed for the "Monarch." It makes starting easy, even in winter blizzards. It saves you fuel in an astonishing way, when you compare the fuel record with that of average engines doing the same work. We want you to understand that fuel-saving feature. The money paid for fuel is always many times what any farm engine costs. The big fuel saving of the "Monarch" Engine means it gives the cheapest power you can buy, irrespective of the price of the engine, or of any engine.

Would you rather pay \$100 for an engine now, and a fuel bill of \$10 a year for 10 years—or \$125 for an engine now and \$20 a year for fuel for 10 years? In the "cheap" engine you pay \$325, and have constant breakages; in the "dear" engine you pay \$200 for 10 years of perfect service. Figure it out, and get a "dear" (?) "Monarch" Engine—for the sake of cheap power.

Buy a "Monarch," and you get a very simple engine of few parts—this means fewer breakages, less money for oil, less adjustments, lighter engine as a whole, but stronger individual parts. For instance, in a "Monarch" you get a high-carbon connecting-rod, and an "over-size" crank shaft.

In "Monarch" Engines you have a one-piece, enclosed fuel tank in the engine base. It cannot leak. It cannot be dented or broken. The fuel cannot be spilled out. This fuel tank includes a sight gauge. You can instantly tell how much fuel you have in the tank at all times.

When you get a "Monarch" Engine, you get the biggest possible value your money can buy in getting efficiency for your fuel purchases—it makes the most power possible from a given amount of fuel—all the fuel you buy is saved for use to develop power.

Get a "Monarch," the one farm engine. You can get exactly the size you need. Write to-day for catalogue.

PERHAPS you've planned to use power on your farm. Now is the time to decide. By having a "MONARCH" Engine of medium size, and using it logically, you can do double work for even less physical labor than you perform now. The amount of work you put into your farm is a rough measure of the income your farm brings you.

Write us to-day, and inquire about a "MONARCH," made in every size from 1½ h.-p. for small machines, cream separators, pumps, etc., up to 35 h.-p., for big threshing machines, etc. Get our free "red circle" folder, and our catalogue. Within the next 20 minutes, get a letter or post card for us.

The "MONARCH" is of few parts, very strong and simple, made of best materials, powerful above its rating for size, and dependable for starting and steady even running at the speed you adjust it for.

The "MONARCH" will run on coal oil, distillate, and other low-grade fuel.

Get a "MONARCH" now for fall and winter work—silage cutting, chop grinding, root pulping, wood sawing, grain cleaning, etc. See what these users say about it:

New Hamburg, Ont., Feb. 1st, 1913.
Canadian Engines, Ltd., Dunnville, Ont.

12 h.-p. Engine Filling Silo.

Dear Sirs,—After testing and using my 12 h.-p. portable Monarch Engine doing my work, including grain grinding, threshing, cutting corn with a Climax B Blower and blowing the corn at a height of 32 feet, I am pleased to say I am very proud of the Monarch. It is simply an excellent engine, giving more than its rated horse-power, and the most simple engine offered to the farming community, and would strongly recommend it to any person requiring it for farm use.

A. HUENRICH.

Bright, Aug. 19th, 1912.

Surprised and More Than Pleased

At the Work the MONARCH Will Do at a Small Cost.

I am more than pleased with the 3½ h.-p. Hopper-Cooled engine purchased from you in December last. I am surprised with the work which it does. It runs a 10-in. plate grinder, and can put through 15 bags of oats per hour and 10 bags of heavy grain, such as corn, peas and barley at an expense of 2 cents per bag. It is also very easy to start. Is a perfect engine for light and heavy work. Wishing you every success,

MENNO WETTLAUER.

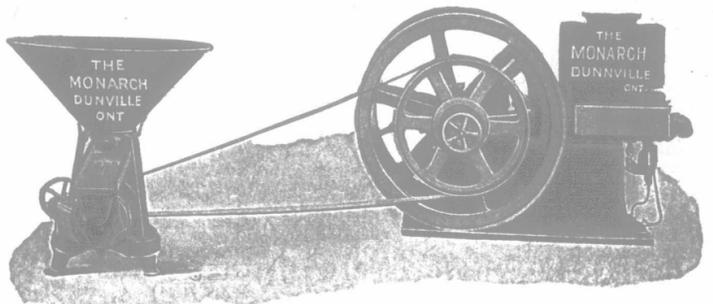
Wellesley, Ont., Oct. 18th, 1912.
Canadian Engines, Ltd., Dunnville, Ont.

Thoroughly Tested the MONARCH and Highly Delighted.

Dear Sirs,—We have thoroughly tested your 12 h.-p. portable engine filling our silo with a Climax A Blower, and ran it perfectly satisfactory, doing better work than any other make of engine which heretofore did this work. Also ran our threshing machine with excellent satisfaction. We believe the Monarch to be one of the best engines on the market. We are highly pleased with our purchase in the Monarch.

Witness: JOS. LIENHARDT.

JOS. F. LICHTI,
DAVID KROPF.



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