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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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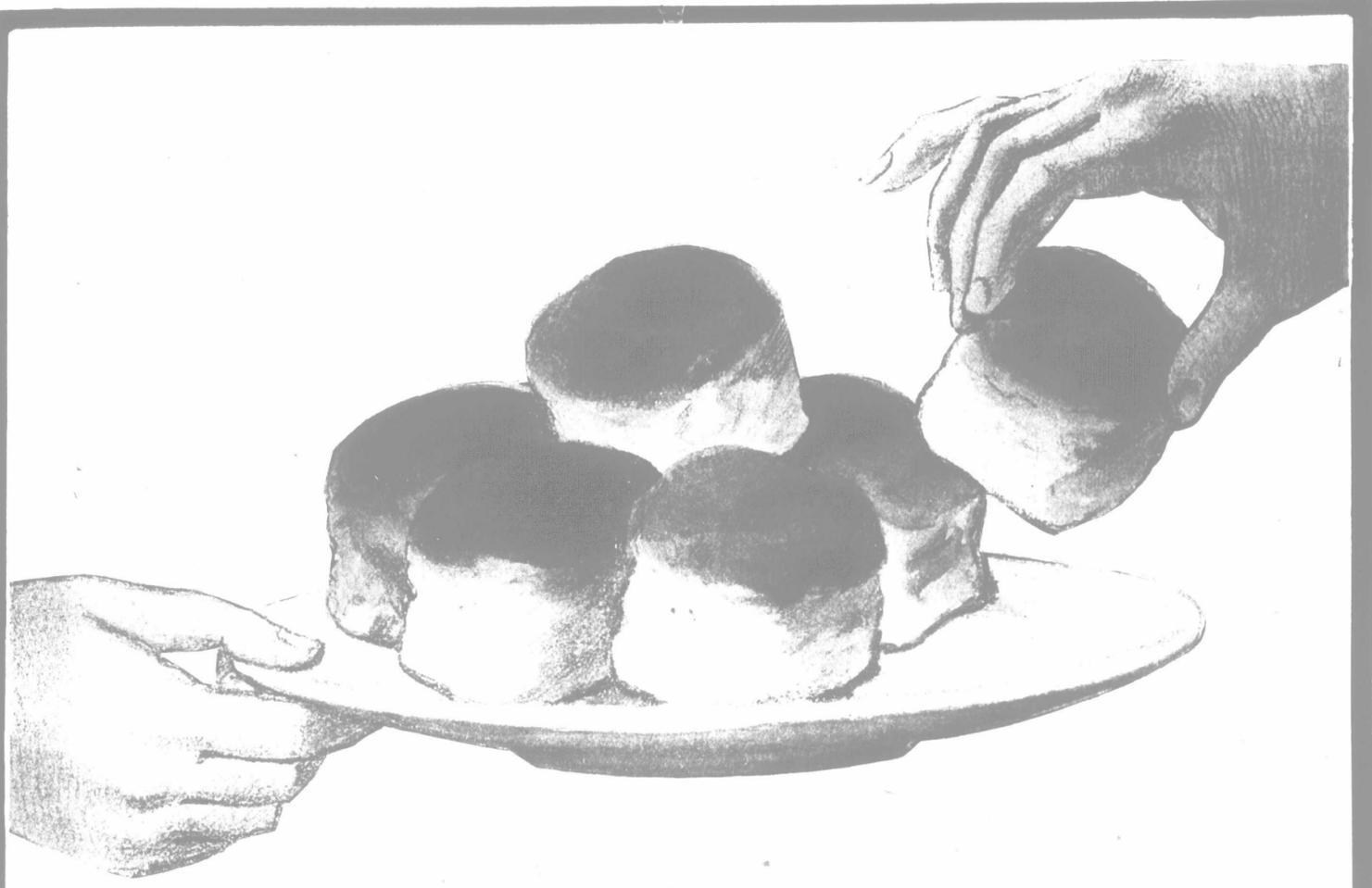
* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

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VOL. LI.

LONDON, ONTARIO, MARCH 9, 1916.

No 1224



PURITY FLOUR

"More bread and better bread"

WESTERN CANADA FLOUR MILLS CO., LIMITED
Millers to the People

CLOVER SEEDS

Government Standard

We guarantee our seeds to suit you on arrival, or you ship them back to us at our expense. We can highly recommend the grades marked No. 2 as being exceptionally free of weeds and good for all ordinary sowing.

RED CLOVER — Bush.
No. 1 Splendid Sample \$16.50
No. 2 Good for purity and color 15.50

ALSIKE
No. 1 Extra No. 1 for purity 12.50
No. 2 Extra pure and nice color 11.00

TIMOTHY
No. 1 Purity, No. 2 appearance 5.50

ALFALFA
Haldimand grown—All sold.
Northern 16.00

Bags are 25c. each extra.
Cash must accompany order.
Ask for samples if necessary.
We also have O. A. C. No. 7 Oats at 75c. in 10 bushel lots.

The Caledonia Milling Co.
Limited
Haldimand Co. CALEDONIA, ONT.

SEEDS

I have a nice stock of Ontario-grown seeds, as follows:

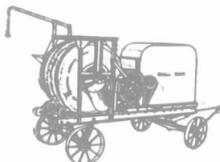
Red Clover

Alsike **Timothy**
Alfalfa (Limited quantity)
Hungarian **Millet**
Seed Corn

All seeds Government Standard. Samples and prices gladly furnished. Ask for them.

S. G. VANCE

Wholesale and Retail
TILLSONBURG ONTARIO



LONDON BULL DOG Batch Mixer
Capacity, 50 cubic yds. per day. Just the machine for small jobs. Pays for itself in 20 days' use. Built to last a lifetime. Send for Catalogue No. 113.

LONDON CONCRETE MACHINERY CO., Ltd.
Dept. B, London, Ontario
World's Largest Manufacturers of Concrete Machinery.

Look Out For

The Imperial Life Assurance Company's big advertisement in next week's issue entitled

"War Portraits Free"

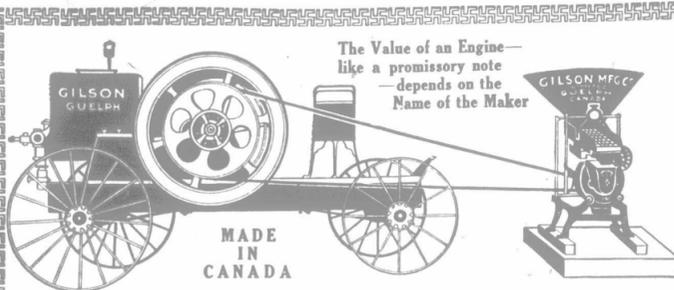
It has an interesting message for YOU.

Corn That Will Grow

Canadian-grown seed corn. Your money back if not satisfied.
J. O. DUKE, RUTHVEN, ONT.

CUT THIS OUT

Farmers' Advocate Pen Coupon, Value 4c.
Cut out this coupon with remittance of 10c. and send to the Fleet Pen Co., 10, Abchurch Lane, London, England. In return you will receive a registered "Fleet" fountain pen, made of 14 K. gold, with a nib of the finest quality. The coupon is good for one pen only. The price, as you may see, is 14c. less the price of the coupon, and only 4c. for the pen. So why don't you get a fine, modern pen for only 4c. This great offer is made to you because the famous Fleet Pen in Canada. Over 100,000 have been sold in England. Agents Wanted. Liberal Terms.



POWER plus Service

Mr. H. TUTTON, of Brantford, Ont., writes:
Gentlemen:—I have had my Gilson 6 h.p. Engine for eight years and it is equally as good as new now, after doing all our work. In all this time, I have had absolutely no expense for repairs. I would not be without it for anything. I can chop a bag of the heaviest grain in four minutes—mixed grain and oats in less time. I also use it on the circular saw, rip saw, cutting box, etc. All these jobs it handles easily, with great strength. Compared with other makes around me, I am perfectly satisfied with its economy of fuel.

When you buy a "GILSON" Engine, you buy reliable power plus service. We point with pride to the many GILSON Engines, turned out in the early part of our career, that to-day are running as smoothly and giving the same reliable service as when they left our factory.

The owners of these engines will tell you frankly that their engines have actually cost them less and given them more service than engines which could have been bought at a far lower first cost. Durability—dependability—Service to the Buyer are the watchwords of the GILSON factory.

GILSON Farm Engines Ensilage Cutters Silos, Grinders, etc.

"STANDARD OF THE WORLD"

THE WONDERFUL "GILSON"



GUARANTEED
to cut and elevate more ensilage with the same power than any other Blower Cutter.

Gentlemen—My N-13 GILSON ENSILAGE CUTTER is so superior to other blowers that it cannot be placed in the same class. For ease of feeding, and the amount of stuff it will put through with my 8-h.p. GILSON Engine it is a marvel. We have never yet been able to plug the blower pipe.

THE HYLO SILO

The Mortgage Lifter

SWEET FRESH ENSILAGE down to the last forkful. The Hylo Silo is perfectly air-tight. No frozen or spoiled ensilage around the walls. Convenient and perfect fitting doors, that you can adjust without hammer or wrench. Made of guaranteed Southern Long Leaf Yellow Pine. Built to last a lifetime. Stands rigid when empty.

Gentlemen—I received my 30 ft. HYLO SILO in A 1 condition, and am well-satisfied with it. Two of us put it up in twelve hours, and I certainly was surprised at how easily it went together.

Every man who gets a GILSON product secures for himself SAFETY, SERVICE and SATISFACTION. Write for Catalogues.

THE GILSON MFG. CO., Limited - 19 York St., GUELPH, Ont.

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RAW FURS

To the Largest, most reliable and oldest house in Canada. We pay express and postage PROMPT RETURNS
We Want FOX, WOLF, SKUNK AND MUSKRATS
E. T. CARTER & CO., 84 Front St. East, TORONTO

WHY YOU SHOULD BUY SIMONDS SAWS



Because they cost no more than unmarked, inferior brands.
Because the name "Simonds" on a saw means that the saw is guaranteed.
Because all steel used in Simonds Saws is made in our own Crucible Steel Mill.
Saws with the name "Simonds" stamped on them.
The illustration shows a two-man cross-cut saw, and is known to your hardware dealer as No. 237. Ask for it.
Write direct to the factory for any other particulars.
SIMONDS CANADA SAW COMPANY, LIMITED, MONTREAL, QUE.
Always buy a saw with a sharp-cutting edge—not a soft saw because the former lasts longer and keeps its edge better.

Clover Seeds

(Government Standard)

	Per Bus.
No. 1 Red Clover.....	\$16.25
No. 2 Red Clover.....	15.75
No. 1 Alsike.....	13.00
No. 2 Alsike.....	12.00
No. 1 Alfalfa.....	16.00
(Northern grown)	
No. 2. Timothy.....	5.50
(This seed grades No. 1 Purity).	
No. 3 Timothy.....	5.00
White Blossom Sweet Clover..	12.50

Terms cash with order. Bags extra at 25c. each. On all orders east of Manitoba of \$25 or over we pay the freight.

We guarantee seeds to satisfy or ship back at our expense. Ask for samples if necessary.

TODD & COOK
Seed Merchants
Stouffville Ontario



Rebuilt Portable and Traction Engines and Threshers

All sizes for sale cheap. Complete threshing outfit, traction engine with cab, separator, wind stacker, in good operative condition \$875

The Robt. Bell Engine & Thresher Company, Limited
SEAFORTH ONTARIO

RIDER AGENTS WANTED

In every locality to ride and exhibit a 1916 Hyslop Bicycle with latest improvements.
10 DAYS' FREE TRIAL
Every Hyslop Bicycle is sold with the understanding that if owner is not satisfied after using bicycle 10 days it can be returned and money will be promptly refunded.

DO NOT BUY a Bicycle, Sun dries, Tires or Sporting Goods until you receive our latest literature and special money-saving proposition.

TWO CENTS is all it will cost to send us a postal, and we will mail Free, postpaid, a handsome Art Folder showing our complete line of Bicycles in large size actual colors; also Catalogue of Sun dries, Tires and Sporting Goods. Do not wait. Write to-day.

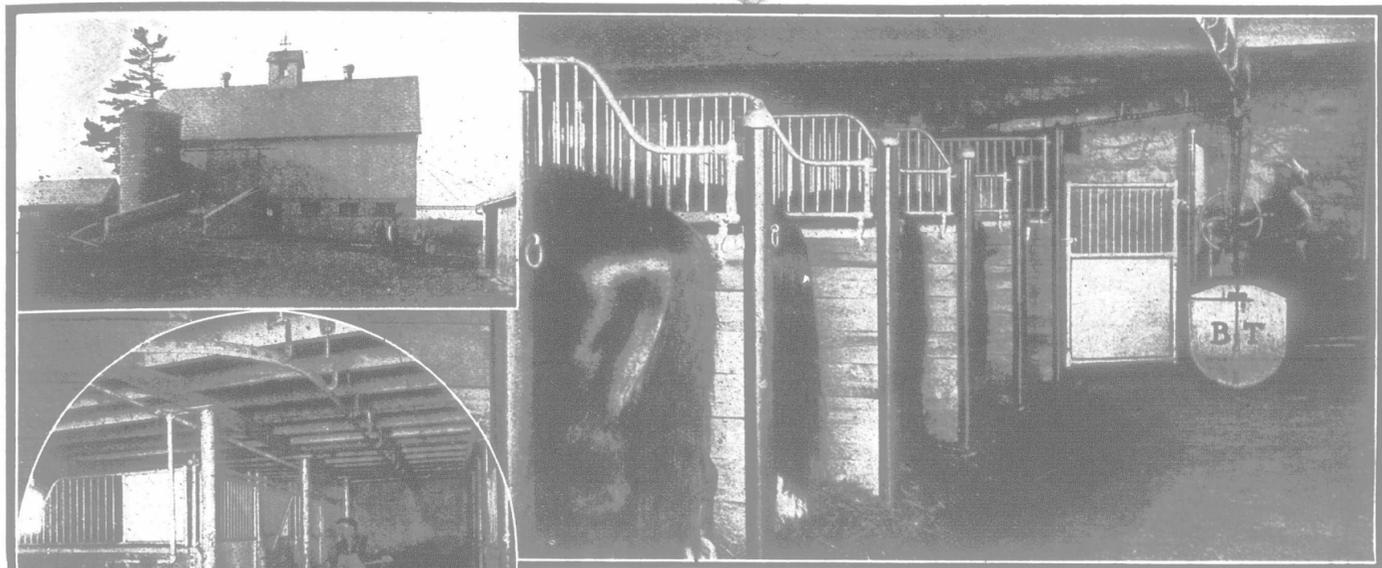
HYSLOP BROTHERS Limited
Dept. "2" Toronto, Ontario

CLOVER SEED

Our Alsike, Timothy, Red Clover, etc., will compare favorably with anything on the Canadian market. Send for price list.

"Purity Our Pride"
1887-1916
S. F. M. O'FLYNN & SON, Shelburne, Ont.
Dufferin County

Strawberries, seed potatoes, etc.—50 berries, including Fall-bearing, St. Regis, Ever-bearing and other raspberries. Blackberries, currants, gooseberries, grapes, asparagus. Cobbler and Green Mountain potatoes. Catalogue free. H. L. McCONNELL & SON, Port Burwell, Ont.



Feeding through the handy steel swinging fronts.

A Fine Looking Horse Stable

A horse stable that is bright and cheery and clean—a stable that is always tidy and always looks well—a stable that shows off your stable to the best advantage so you won't be ashamed to take a visitor or buyer in to see them—that's the kind of horse stable that pays best—that's the horse stable for you.

BT Steel Horse Stable Fittings



B T Steel Manger. Dust and chaff fall through the steel rods.

They make an up-to-date horse stable. Considering the fact that they last practically for all time, their cost is little greater than the cost of wood fittings.

BT Steel Stall Posts

No amount of battering will disfigure them. They make a substantial job whether used with steel or cement floors. They save time in framing as they are grooved up 5 feet to receive 2-inch dressed plank.

BT Steel Stall Guards

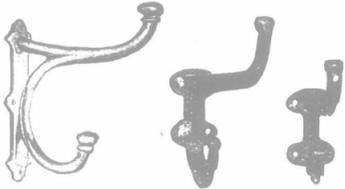
They let the sunlight flood through the stable, adding much to the appearance of the stable. They are easily kept clean as there is small surface to collect dirt. The horses cannot destroy them by cribbing.



Neat, durable corner oat bowl.

BT Steel Mangers

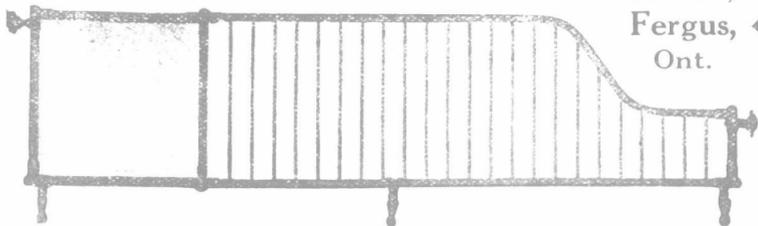
They save feed by preventing the horse slobbering or nosing it out.



Handy steel pegs for harness.

Beatty Bros. Limited

Hill St.,
Fergus,
Ont.



Open construction of B T steel guards lets the sunlight flood the stable.

It is easily kept clean, does not harbour dust or vermin. It cannot be injured by the horses.

Send for Free Book

The new 336-page BT Barn Book shows complete steel fittings for horse stable—box stall doors—corner feed racks—supporting columns—kicking plates—hitching posts—water troughs—steel swinging fronts—harness pegs—ventilating—harness brackets—toll hangers—soap and sponge boxes, etc.

It also tells about BT galvanized steel stalls, hog pens, bull and calf pens, water bowls, manure and hay carriers, etc.

It shows how to build a barn from start to finish, and gives 14 food plans for horse and dairy barns.

Send for the book. It is free to any man who is building or remodelling.

Beatty Bros.
Limited,
K230 Hill Street,
Fergus,
Ont.

COUPON

Beatty Bros.
Limited,
K230 Hill Street,
Fergus, Ont.

Send me your 336 page barn book that tells all about BT Steel Stable Fittings and other fittings for cow stables and pig pens.

I have _____ horses and _____ cows

I expect to build or remodel, and will start

about _____

I am interested in Steel Horse Stable Fittings

_____ Steel Stalls _____

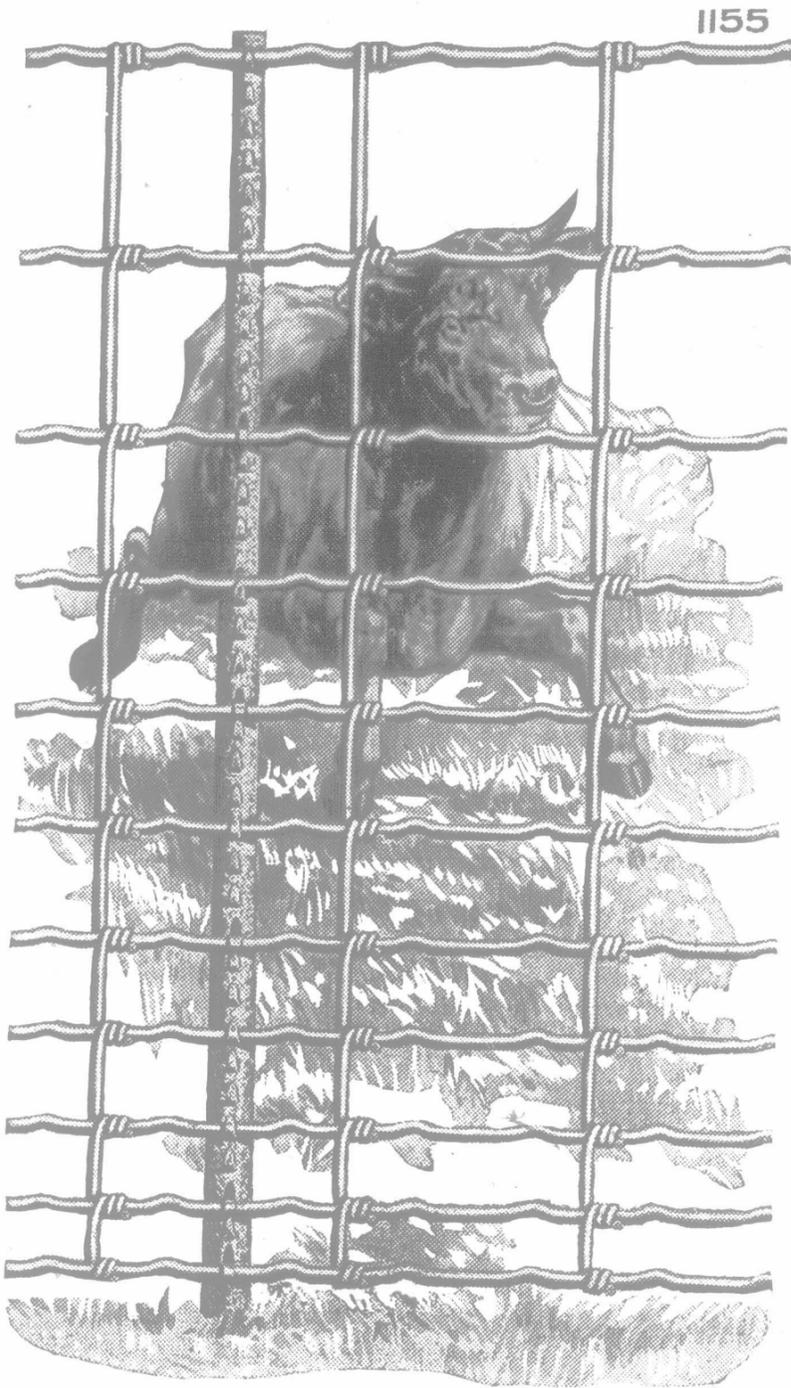
_____ Manure Carriers _____ Hay Carriers _____

Your Name _____

P. O. _____ Prov. _____

AMERICAN FENCE

**Imitation
is the
Sincerest
Flattery.
There are
imitations
of
American
Fence
but only
One
Genuine**



**Has
stood
the
Test
for
20
Years**

BUY IT! DON'T EXPERIMENT!

Made in all heights,
styles and sizes
of wire

Ask your dealer. If you
don't know him,
write us

The Canadian Steel & Wire Co., Limited

Hamilton, Ontario

Winnipeg, Manitoba



LI.

LONDON, ONTARIO, MARCH 9, 1916.

1224

EDITORIAL.

In needlessly sacrificing life, the Kaiser is the most reckless of all militarists.

A correspondent, in this issue, gives party politics a hard blow, but none too hard.

Another month of feeding may make prime beef out of a common to good steer.

It is time to work the curry-comb on the horses, and on the cattle to be sold this spring.

Some may desire to know how to tell the age of a cow by her teeth. This issue illustrates the method.

Crop success depends to no small degree upon thorough cultivation. It is not too early to be laying plans.

Keep the spring litter dry. This will go a long way toward health, and will make it easier to keep the young pigs warm.

The British public may demand nationalized railroads after the war is over. They have met the contingencies of war well indeed.

There may be little in a name but "breaking horses" conveys an idea that has been responsible for a lot of unfortunate results.

Every farmer should have a garden, and a good garden. Everything about a good farm garden is outlined in the Horticultural Department this issue.

There is more than throwing the feed to the stock, and carting away the manure, in being a good stockman. The good stockman knows his stock intimately.

There is a right and wrong way to grow young orchards. Try the right way this year by following ideas which will be set forth in our issue of March 16.

If you did not draw out your manure in winter it was not because there was not a free discussion of the subject in the columns of "The Farmer's Advocate."

Let us all get ready for spring—clean the seed grain; cut the summer's wood and pile it handy to the kitchen; break the colts; repair the implements and machinery.

Every week we read of more charges of graft and corruption in some part of Canada. We can truly say with a correspondent who writes in this issue: "We need new blood."

We sometimes wonder how people in other professions would relish being told by farmers what they should do in this war; yet all the other professions proceed to tell agriculture what it should do. Strange, is it not?

The Kaiser's "Take it no matter what the cost" tactics will lose him the war. Sooner or later the German troops will see the folly of opposing their bodies in a solid wall to the wall of steel belched forth by great guns, handled by the best gunners in the world. German pluck is no match for British and French high explosive shells and machine-guns.

New Blood Needed.

Many times has "The Farmer's Advocate" pointed out that if the farmer is to get his full measure of justice at the hands of Parliament, he must be represented in Parliament by a larger number of capable farmers, who understand the questions of the day, who are not too closely tied to any party, who are honest, upright, and have the courage of their convictions to such an extent as to stand up for the rights of the farmer upon every occasion, which demands a division of the House, or support of farming members in debate. Free wheat was voted down recently. It is well understood that the farmers of the West desire free wheat. They believe it would be a good thing for their business. It is well known that certain big interests in Canada are against free wheat, and the fight for it was lost. It is not the first time that such has occurred, and, as pointed out in a strong article in this issue, written by a Northumberland county correspondent, the farmers of this country must be represented in Parliament by men engaged in the occupation of farming, and not by lawyers doctors, and men interested in other business who very often are imported into the agricultural riding for political purposes, and who, as soon as they take their places in Parliament, begin to represent manufacturing, transportation, and big moneyed interests rather than the agricultural constituency which elects them. Every rural constituency has in it some men capable of looking after the farmer's interests were they sent to Parliament. It should be the business of the electors in these constituencies to see to it that in the future the most capable farmer amongst them is sent to represent them, and let us forget for a while some of the old party prejudices many of us hold. And the farmers already members should stand up for the rights of the people they represent. Unafraid of the crack of the party whip, they should speak out in debate wherever the interests of agriculture are at issue. What Rosebery said of the British Parliament seems to apply here. "We want new blood," and this on both sides of the House.

Sow Enough Clover Seed.

It is not often that the price of clover and grass seeds is as high as it is this spring. Exorbitant prices for these materials do not make for good catches of seeds this year, and consequently there may be some danger of a shortage of hay and grass crops in 1917. The clover crop is one of the most important grown on the average farm, and during recent years we have been advocating a heavier seeding per acre. In travelling from place to place throughout the Province, we have noticed that the men sowing the most seed per acre, up to 12 lbs., were obtaining the best average stands of red clover, and were reaping the heaviest crops of hay and pasture. But prices are so high this year that we hesitate to recommend seeding as heavily as 12 lbs. of red clover per acre. We also wish to impress upon our readers that it will be unwise to cut the amount of seed per acre too low, because for the extra outlay necessary to purchase three or four pounds more seed for each acre, the difference in crop may pay many times over. It is dangerous to sow too little in any season. Old-timers have told us that seasons generally go to extremes, that is, one extreme follows another. Last year was very wet, following out this idea, this year may be very dry. We are not attempting to prognosticate, but it might be well to be prepared for all weather contingencies. In purchasing seeds, be sure and get enough. Where clover is sown alone, without timothy or alsike, we believe that at least 8 lbs., and preferably 10 or 12 should be put on. We might just give what we are purposing sowing at

Weldwood. Owing to the high price of red clover, we are this year mixing a little alsike in our seed, and will sow 6 lbs. of red clover, about 2 lbs. of alsike, and 4 or 5 lbs. of timothy per acre. This makes a twelve or thirteen-pound seeding per acre, and should give a fair stand. Alsike is proportionately cheaper this year than is red clover, consequently a fairly heavy percentage of this is being sown. We do not ask anyone to follow our rate of seeding, but simply publish it as a suggestion, and wish to again emphasize that if good catches are to be obtained, plenty of seed should be sown.

This Should Be the End.

Whether pacifist or militarist, no one can read the graphic accounts of the unprecedented struggle being waged in France, without feeling that this war should teach a lesson which will ensure humanity from any possibility of a repetition of the slaughter, after the present world-conflict is brought to a close. We are in the fight on the right side, and as Premier Asquith said, "shall never sheathe the sword until Belgium recovers in full measure all, and more than all that she has sacrificed; until France is adequately secured against the menace of aggression; until the rights of the smaller nationalities of Europe are placed upon an unassailable foundation; and until the military domination of Prussia is wholly and finally destroyed." On the snow-clad hills, and in the smoky valleys near Verdun, we read as we write that 30,000 brave men of both sides lie wounded and dying, and no attempt to succor them can be made because of the terrible fire of the artillery on both sides. German regiments, battalions, and brigades, disappeared under artillery fire as if the earth had opened and swallowed them up. It is reasonable to suppose that the losses in the allied ranks, while possibly not so heavy, were terrible in such a sanguinary fight. Hundreds of thousands of men, the pick of the nations they represent, hurling themselves at each other, and at the walls of steel and high explosives thrown with unequalled violence at each other's position! The war must go on till the victory is won, but the awful carnage, and destruction terrible beyond words should so impress the human race that in future humanity should be considered, rather than the desires of any militarist for world power.

Will Your 1916 Garden Be Worth Forty Dollars?

Do you get forty dollars' worth of, or more, vegetables from your farm garden each season? Many town and city gardeners claim that they are able to grow, on a small back lot, vegetables, in season, to the value of \$40 or more each year. The farmer, with vastly more land available, cannot afford to neglect to avail himself of the opportunity of having fresh vegetables from early spring to late fall, and these grown at small expense in a plot of land set apart for a garden. In order to help readers in planning, buying seeds for, and planting their garden this year, we have endeavored in this issue to outline some points which have proved practicable and which, we believe, are worthy of study. If anyone is entitled to the luxuries that the garden affords, it is the farmer, and while labor will be scarce this year, and a garden requires some time, if it is to be kept clean, if properly laid out, so that most of the work may be done with a horse, it should not take long to prepare and cultivate enough vegetables for the year. Do not give up the idea of having a garden because labor will be scarce. Let something else take its chance, because no part of the farm produces so abundantly as the small plot set apart for garden purposes.

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

Published weekly by
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

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

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

A Boost for Government Ownership.

The authorities in Great Britain are to be congratulated upon the success which they have made of Government operation of the railroads since the war began. All the railroads in the British Isles are under government control, and are worked by a committee of managers, and so far the cost has been amazingly small, economical methods introduced under the committee of competent managers being responsible for the comparatively small outlay. An adequate passenger service has been maintained, while some of the roads have supplied as many as fifty troop trains daily. It is now hinted that the people of Britain, when the war is over, will be slow to ask for a return to the old, private-ownership method of operation of their railways. There are many good things in public ownership, which have been pointed out from time to time through "The Farmer's Advocate." Ontario's Hydro Electric Power and Lighting scheme has been the object of much favorable comment, and has succeeded in giving the people of Ontario cheaper power and light. Public Ownership of Public Utilities is undoubtedly the proper system, provided there is put into the management in whatever sphere it operates, the same competency that is developed under the system of competition, where one private firm is kept on tip-toe by another in the same line. At a Conference on Marketing and Farm Credits, held in Chicago, about two years ago, it was pointed out by certain speakers, that the greatest difficulty in the way of unlimited success of the Parcel Post system in the United States, was, that clerks and overseers were not always as courteous and ready to help those using the system, as were the men in the employ of Express Companies, and directly responsible to some one. It is a trite saying that "What is everybody's business is nobody's business, and too often employees working for municipal, provincial, or federal governments, seem to act on this principle. We are entirely in favor of government ownership, or to put it in other words, of having the people's work done by the people themselves, but the removal of the element of competition should not take with it the desire to have the articular line of business operated on the most

economical and business-like scale possible, with every employee, from the manager down to the lowest-paid clerk just as courteous, obliging and efficient, as he or she would have to be if working for a private firm or corporation. A correspondent, in this issue, makes the statement that the business of government should be the best operated business in the country because it is the biggest. All business coming under any of the departments of government right down to the municipality should be the embodiment of efficiency. We are pleased to note that the nationalization of the railroads in Britain has been such a success, and we believe that more government ownership would be a good thing for this country, provided the right kind of men are placed at the head of affairs, and all graft, corruption, intrigue, political pull, and inefficiency obliterated from all departments of the work. The bane of government ownership is bad government. Honesty and efficiency should be the keynote of government and government ownership.

Pure-bred or Grade—Which?

A short time ago we received a letter from a correspondent, in which he asked the pertinent question as to whether or not we had found in our experience that the best of grade cattle were more desirable than pure-breds. We had no hesitation in answering that we had not found this to be the case, but that high-class grades are to be preferred to an inferior type of pure-bred stock. The point is well taken. Not so very long ago we were talking with a man, who happened to remark that his mongrel-bred pullets were giving him a higher percentage egg production, than were his earlier-hatched, bred-to-lay Barded Plymouth Rocks, on the same feed, and with the same care. We remember having seen in a stable last summer a grade cow, which in her ten-year-old form, produced over 10,000 lbs. of milk in one lactation period. In the same stable were pure-breds of the same breed, which could not boast such production. We have seen many grade breeding sows, which were giving their owners larger, more uniform, and better-feeding litters, than were certain pure-bred sows in the same herds. Almost every reader knows of grade mares, which, when mated with the right class of sire, produce colts which compare very favorably with those from certain pure-bred mares, mated with the same horse. The same holds true with sheep, and we are forced to recognize the fact that the grade animal judiciously bred and fed, and highly graded up, is superior to many inferior pure-bred animals. But this does not prove that the best grade is preferable to the best pure-bred. The average farmer, starting in stock breeding, would be wise to get his experience with grade stock, and through a process of grading up, using nothing but the best pure-bred sires, he can in a few years develop a herd or a flock equal or almost so in appearance and production to many pure-bred herds, or flocks. But when he has reached this stage, and wants to go on, there is only one thing left for him to do, and that thing he should do in justice to himself, and to the live-stock industry, namely, gradually replace his good grades with better pure-breds. We hold no brief for the scrub pure-bred. Such should not, in our opinion, be permitted to reproduce its kind, as it most certainly will, if put into the breeding herd or flock. We would not advise a man starting in the stock business to purchase, in the beginning, high-priced, prize-winning, pure-bred stock. It is always advisable to learn the business with good, hardy, grades, and to develop with the business by judiciously up-grading the foundation stock; but the aim of every good stockman, going into breeding operations, should be to some day own, and develop towards perfection, a herd or flock of pure-breds. Suitable and satisfactory sires can never come from a grade herd or flock. Pure-breds must form the foundation for all advancement in the stock business, and the best of the pure-breds, if our breeders do their duty, will always compare favorably in conformation and production with the very best grade animals of the same breed, in fact, they will always out-class them. But great care must be exercised in the breeding and dissemination of pure-bred stock, that too large a percentage of animals of the scrub order are not bred and sold as foundation stock to new men intending to take the step from grades to pure-breds. The scrub pure-bred has been the only cause of some breeders of high-class grades being able to make the assertion that their grades were bet-

ter breeders and producers than their neighbors', or sometimes their own, pure-breds. When it comes to a question of whether a farmer should keep grades or pure-breds for breeding purposes, provided he knows the stock business, and is in a position to make the most out of it after growing up with a grade herd, we unhesitatingly advise pure-breds.

Studies in Political Economy—1.

EDITOR "THE FARMER'S ADVOCATE":

The desire for wealth, in the proper sense of the term, is entirely legitimate. It represents the effort which man makes to extend his control over nature. How is it then that man's moral sense universally looks with suspicion on the rich man, and is disposed to pity and excuse the poor? What is the significance of the statement that "It is easier for a camel to pass through the eye of a needle than for a rich man to enter the kingdom of heaven?"

In popular thinking there is no clear definition of rich and poor. Speaking loosely the rich man is he who possesses much wealth or much power to command the services of others; and the poor man is he who possesses little of these. But where is the line of division between rich and poor? Is it the average standard of living in the particular grade of society under consideration? Is that man rich who possesses more than the average, and that man poor who possesses less? If this be so there is no reason for condemning the rich, no justification for the remarkable unanimity in the moral sense of all peoples in all ages and places. It cannot be that this is the right distinction. There must be some other, and radically different, line of demarcation, which will enable us to distinguish, with scientific precision, between rich and poor, which will harmonize man's reason and his moral sense. What is it?

All things which satisfy human desire can be divided into two classes: wealth and direct personal services. These two are, however, fundamentally one, since all wealth is valuable because it represents human effort, and is thus indirectly personal service. Therefore, all things which are sought by man, in so far as political economy is concerned, may be resolved into the same thing—service. Now the question arises: Is there a mean or normal measure of just possession or enjoyment of service? There is. A member of human society is justly entitled to receive from society the equivalent of what he gives to society. He is entitled to get as much as he gives; service rendered and service commanded should be equal.

Here then, is the scientific distinction between rich and poor. He is rich who can command more service than he need render; he is poor who can command less. Thus viewed rich and poor stand in the same relationship to one another as positive and negative; the existence of rich men necessarily involves the existence of poor men, and vice versa. Viewed from the standpoint of ethics the rich are the robbers, and the poor are the robbed.

This distinction harmonizes all the confusions in the popular mind. It prevents us from unjustly condemning him who may possess more wealth than the average, and from unjustly exonerating him who may possess less. It creates a radically different and scientific basis for classification. It reconciles reason and conscience. Thus defined the statement that "it is easier for a camel to pass through the eye of a needle than for a rich man to enter the kingdom of heaven" is not figurative, but is scientifically accurate. In the kingdom of righteousness there cannot be either rich or poor.

Brant Co., Ont. W. C. Good.

The Christian Guardian quotes the eminent Dr. F. W. Gunsaulus as declaring that every one of the twelve most prominent preachers in Chicago was brought up on a farm, which has proven and is demonstrating every day that it is a good place to develop men. "And," adds the Guardian, "the church which controls the rural districts to-day will probably control the cities and legislatures to-morrow." This is encouraging and only needs the tangible backing of a livelier appreciation on the part of the ministry of the noble and destiny-directing opportunities of rural pastorates.

The pulpit of the rural community in quest of model discourses will look long and far before bettering those like "The Sower and the Seed" of The Great Teacher, or finding a more helpful circuit or parish plan of campaign than "going about" among the people "doing good."

The rural minister of the Gospel who would have the people of his community thronging to hear his pulpit message should identify himself with their lives by a first-hand and personal interest in their pursuits and aspirations.

Nature's Diary.

A. B. Klugh, M.A.

At this season of the year, when a crust is formed over the deep snow and a light fall of snow covers this crust, we are able to study tracks better than at any other time. The study of the trails left by our wild animals is extremely fascinating, and from it one can learn a great deal about the habits of the various species which is revealed in no other way.



Fig. 1—Tracks of Varying Hare leaping easily.

A very common track in any part of the country, where any bush remains, is that of the Varying Hare. Fig. 1 shows the track of this species as it is left by the animal hopping along in a leisurely manner. In Fig. 2 we have the tracks left by a Varying Hare going at top speed, when it covers from nine to ten feet at a bound. It will be noticed in both of these figures that the tracks of the hind feet are in front of those of the fore feet. This reversing of the relative positions of the feet has led many people to follow a Hare trail backwards under the impression that the



Fig. 2—Tracks of Varying Hare speeding.

front feet should leave their tracks ahead of those of the hind feet. Fig. 3 showing the Hare in action, illustrates how the tracks are made. The only tracks which may be mistaken for those of the Varying Hare are the tracks of the Cotton-tail. When these two tracks are compared it is seen that those of the Cotton-tail are a good deal smaller than those of the Hare, particularly the impressions of the hind feet.

If we follow up the trail of the Varying Hare we should be able to read the story of the animal's wanderings. Here it has been leaping quietly along, now in the middle of this open space it has suddenly length-



Fig. 3—Varying Hare in action.

ened out its stride and has made straight for a clump of bushes. When we enter the clump we see where it crouched down and remained motionless. We can now read that it was frightened either by a man or a bird of prey. If the cause of its sudden spurt had been a fox or weasel it would not have paused in this first clump but have gone right through and on at top speed. Here it has emerged from the bushes, again hopping leisurely, showing that the danger was past. Here it has paused to browse off the low bough of Cedar, here it has eaten some bark from this Dog-wood bush. Here in a bunch of tall grass it has rested. But its rest has been violently



Fig. 4—Tracks of Red Squirrel.

disturbed, as it went out of the grass in flying leaps. Its disturber has left its name written in the snow—a fox which has wined the Hare, stalked it until within leaping distance, and sprung. But it has sprung a fraction of a second late, and landed not on the Hare but on the spot where the Hare was. The fox has not pursued, and we see that after going at full speed for some distance the Hare has paused, sat down facing its back-tracks, and then gone off at its usual quiet gait. So we follow on, piecing the story together.



Fig. 5—Tracks of Deer Mouse.

In Fig. 4 we have some tracks which are very common wherever there are any trees—those of the Red Squirrel. It will be noticed that here again the hind feet over-reach the front ones as the animal leaps along, also that while there are marks of five toes on the tracks of the hind feet there are only four on those of the front feet. This latter fact is due to the rudimentary condition of the thumb in the Squirrels, it being reduced to a mere knob.

mentary condition of the thumb in the Squirrels, it being reduced to a mere knob.

Another very common track is shown in Fig. 5—that of the Deer Mouse. Again the impressions of the hind feet are in front, and the trail of the long tail shows between the paired tracks of the feet. These little mammals make a delicate tracery of trails in the woods and at the borders of fields. Sometimes we find the tracks of the field Mouse, but not very often, as these animals tunnel beneath the snow, and if the tracks appear from a tunnel they very soon disappear down another.

THE HORSE.

Breeding, Fitting and Showing Clydesdales.

In the live stock industry there is no more fascinating or profitable occupation than the breeding and showing of high-class Clydesdales. There are three ways to start a breeding stud but the success of the work rests entirely with the skill, ability, energy, thoroughness and studious habits of the man or men engaged in the undertaking. One way to commence operations is to buy the very best show animals, a very costly way and it is doubtful if the most successful and profitable results are obtained especially for the large amount of capital invested. Although the chances are great to obtain a good foal when two excellent individuals are mated, and usually like begets like, yet the breeder can never be sure, as they may breed back to some inferior ancestor or evolve a new type altogether.

Another way to make a start in breeding pure-bred Clydesdales is just to buy a cheap mare and use the cheapest and handiest stallion and trust to luck to get a good colt once in a while. This class of breeder usually has his expectations amply fulfilled as he does not expect much and sometimes, although rarely, he is very agreeably surprised and gets a real good foal, as nature sometimes works this way and the unexpected happens.

The third class of breeder is the man who has a real liking for a good horse and who has made his own particular breed his life's study, the man who has virtually grown up in the Clydesdale breeding business, has taken every advantage of studying pedigrees and lines of blood, of acquiring knowledge of types and conformation and gives strict attention to the valuable experiences of veteran breeders, sometimes given orally or through the medium of our far-reaching and very valuable agricultural journals. This class of breeder is a student as long as he lives and always realizes that he does not know all about horses.

In selecting his females this man is careful to pick good types of the breed as large in size as possible, he must have a strong sound mare as nearly perfect in conformation as possible, with those good qualities of hard-wearing feet, well-set pasterns, fine, straight-flowing, silken hair, clean, hard, wide loins, well-placed limbs, clean, feminine head, well-muscled shoulder well up at the withers, strong, wide back, great depth and spring of ribs and broad, well-muscled, roomy hindquarters, and he invariably insists on good, true, straight action, a good, fast walker, good tempered, docile and tractable. He well knows that the more good points he can get in the mare the greater his chances of raising a good show colt. The pedigree is next examined and carefully studied, every particular of the merits and demerits of the ancestors being taken into consideration, and the mare only purchased when perfectly satisfied that the breeding is good.

Having obtained his mare the breeder who usually has high ideals and great ambition to breed the best of top notchers endeavors to find a suitable stallion. Sometimes this stallion is very hard to procure, sometimes costing much in money, time and deep study, the breeder fully realizing that unless he can use the very best and right type of sire, his carefully selected mares will be a disappointment to him. He tries to get a weighty stallion of masculine appearance and he must have quality, faultless legs and good action, and he must be bred from good stock as far removed in blood lines from his mares as possible. Breeders as a rule like to mate big strong, healthy mares even if a little rough in legs, with the very finest quality, good-legged stallions, as it is believed by many that the sire almost invariably transmits his own quality and superior bone to the offspring, and the mare transmits her strong constitution, health, good feeding and easy keeping characteristics. The success or failure of his choice in stallion will soon

be apparent when the foals come. If they are satisfactory and up to his expectations he will use this horse as long as possible. During the time the foals are running with their mothers very little can be done to assist nature except liberal feeding and careful attention to the feet of the colt as it grows. If it toes out a little the feet are filed a little lower on the outside, lower on inside if toeing in, if back on the knees the heels are kept high and toes short; if ahead on knees the heels are kept low and all feed is given from the ground; if the back is low feed also from the ground; if a little wide at hocks keep the heels low on the inside. Keeping the feet in proper trim and shape while the colt is growing and getting them properly shod by an expert blacksmith is a most important point in fitting Clydesdales for the show ring. No exhibitor can expect to win a high place unless he has a horse that can walk well and show his paces at the trot. The walk is the most important in the Clydesdale, the trot is not much used in actual work but shows the spring and power and balance of the animal and unsoundness can be more easily detected when in motion at the trot.

The second six months of the colt's life is very important. It should be liberally fed on feed calculated to produce bone, muscle and sinew. The colt should be kept growing as it should attain nearly half its mature weight without being fat at 12 months of age. During the first year the colt should be well halterbroken and trained to walk and trot, but should not be pampered or petted. Do not try to show Clydesdales in high condition until they are matured. Judges look for good strong-framed, growthy colts. First-prize yearlings and two-year-olds very seldom come back and win again. Many good colts are overdone by high feeding and growing. Clydesdales are judged for type, good proportions and conformation, good feet, pasterns, hair and skin, superior class of bone, well-placed legs and clean, well-formed joints, good head and eye, good neck set nicely on well-muscled shoulder with good collar seat and set at a proper angle. The Clydesdale shoulder is just about the medium of the extreme sloping shoulder of the Hackney and the upright shoulder very often found in the Shire. The breast must be full and wide with the legs set well under the body. Judges of Clydesdales do not like a horse with a bull-dog breast or legs set out on the extreme point of the shoulder. The elbows must be set close to the body and chest bulge out round and full ribs well sprung from the back which should be level and wide and well fleshed over loins, hip bones close up to ribs, wide and well fleshed over. Sharp, prominent hip bones are not in favor with Clydesdale judges. The croup is desired broad and well-muscled with tail set fairly high, haunches and thighs must be full and well-muscled and nicely turned. Clydesdale judges look for a horse that looks large from a side view, deep shoulder, girth and flank, wide, well-muscled fore arms and gaskins, legs not too long with very broad bones, cannon bones of hind legs long, and short from hock to thigh. From a front view the Clydesdale should have a strong appearance, good face, eyes prominent and full, set wide apart, head carried fairly high, breast appearing full and wide with legs placed a good width apart and always perpendicular, standing or walking. When standing or moving the Clydesdale should appear to have the power to bring forward a heavy load easily, and place his large feet with sureness and always straight ahead. When viewed from behind the Clydesdale is expected to have the handsomest appearance and nicest turned hind quarters of all the draft breeds, and when in action comes next to the Hackney in hock action, but must not lift so high. Judges will place a Clydesdale down for Hackney action.

In fitting Clydesdales for the show ring nothing must be overlooked from the time the colt is weaned. The feet and legs must be well looked after. Many breeders use a light blister around the coronet to encourage the growth and spread the hoof but as this has a tendency to make the hair coarse it is better to let nature alone. Do not commence too soon before the show to increase the amount of feed, about two months is time enough and in that time the horse can be brought out in nice bloom. For feeding purposes, personally I rather prefer bruised oats with a little bran, cut hay or oat sheaves, an occasional feed of boiled barley with a little flaxseed. During the breeding season with the stallions we much prefer boiled oats instead of barley.

Give the horse plenty of grooming and keep the feet and legs clean, apply a little hoof ointment to hoofs and coronet if inclined to be dry and hard, also apply a little sweet oil to hair of legs to keep soft and straight. When brought into the ring the Clydesdale should have a long, slim fringe of hair around his coronet, short, fine hair all round pastern and long thin, straight, silken hair



Dolly and Her Progeny.

A thirteen-year-old mare with her nine colts in line. Ages are marked on each. Owned by Michael Rettinger, Formosa.

from the back of knee down the extreme edge of leg to fetlock joint and hanging to the ground. This is the natural state in which the Clydesdale should appear in the ring. But with rough-haired animals much work is done to obtain this clean appearance, the Clydesdale grooms being adepts at plucking out the long hairs bandaging the legs in cotton batting, washing the legs clean, drying with the finest of white sawdust, hand rubbing until the hair lies closely to the bones. The Clydesdale steps into the ring with the most beautiful legs of all the draft breeds, he comes only second to the greatest of all breeds, the Thoroughbred, for density, strength, quality and weight of bone.

Sometimes the pasterns are shaved with a knife and finished off with a piece of glass or even the horse clippers are used in removing the long hair, but this is a most reprehensible practice and the judge will always place an animal down if he can detect any interference with the natural state of hair. Before entering the ring all Clydesdales should be well broken, well shod (with the exception of the yearlings, much better without shoes) bodies and legs clean, the young classes in good thriving, healthy condition, mares with foals in fair condition, mature stallions, yeld mares and geldings must be in good condition, not overloaded with fat but well covered with hard flesh and hair and skin in nice bloom. On no consideration should an animal be brought into the ring that is unsound even if the judge fails to detect the unsoundness in the limited time at his disposal to examine the animal. Although the horse wins a place it is no honor for the exhibitor. Never for a moment from the time that you enter the ring forget that the judge may be looking at the horse. Properly place the animal to the best advantage when the judge is examining the horse closely, when walking let the horse go at a free straight stride and keep step with the animal, move at the trot slowly and steadily, always move away and come back straight to the judge, and always remember to keep on the outside of your horse when turning never let the horse run in a circle, it is very bad ring manners, extremely dangerous and spoils the action by causing the animal to throw out his off legs. Always be courteous to the judge, do not get unduly excited when winning and be a gentleman and a sport when losing. All men honor the breeder, owner and groom for winning the prizes, but greater and more enduring honor and glory are theirs when all men know them as good sports and perfect gentlemen. To those who have never shown an animal I would say bring your animal just in his natural state, have him clean, he needs no ribbons or decorations the judge never sees decorations, but is quick to see an animal of real merit. Fancy harness and well-decorated, mature animals look well, and especially present a fine appearance and are a popular and imposing spectacle at our great winter fairs where great crowds gather to see our famous Canadian breeds of horses, but the prize-winners have to win their laurels on their own merits.—James McKirdy, in "The Farmer's Advocate and Home Journal, Winnipeg, Man.

Breaking Colts.

EDITOR "THE FARMER'S ADVOCATE":

I break my colts by not breaking them. This sounds paradoxical. Let us see. Your paper, Mr. Editor, is "true to name," for it is in reality the advocate of everything that has been and is being found to be of practical worth to the man on the land, from actual trial by men of experience. This brief article is likewise a testimony based on experience.

From the first I get my colts used to being handled, without petting them, from the time when the halter is first put on until they are going as wanted, either singly or in double harness. I aim never to have them in fear of me. This does not mean that there are never occasions when firmness has to be used. In handling young horses it is essential that one should "start only what he can finish." For example, one of my colts when brought in after the summer refused to stand hitched, but as soon as she found herself tied, would surge back and hang on the rope, until, if possible, it would break. I cured her in this way: Passed a strong rope over a pulley, firmly fixed to a beam about seven feet high. To one end of the rope was attached a barrel in which a few rocks were thrown. To the other end the colt was hitched, by the usual noose around the neck, the rope in turn passing through the halter ring. She threw her weight on the rope and hung for but a few seconds, the weight of the barrel causing her to give in. The second time she went at it rather halfheartedly, raising the barrel but a few inches and allowing it to drop immediately. She was completely conquered, and that without breaking her spirit. I tried to get her to set back on the rope again, but could not. I carelessly placed my hat on her head, and she would not move. I took up her feet one after the other, and she made no objection, though she had not been in harness before. I threw the harness on her, and again off, allowing it to come against her heels, and she showed no fear or dislike to it. I then led her into the stable and tied her in the stall with an ordinary halter shank, and have had no trouble with her since. My point is this: It is possible to break colts without breaking their spirits, and colts so broken are much more valuable than those that are brought into subjection by the harsher means often used.

I have one very dependable animal the mother of the colts of which I am writing. I hitch colts with her, and after two or three lessons they work together as though they had always been so. Then it is a natural and easy transition from the double to the single rig. The whole secret, as I apprehend

it, is for a man to exercise his "horse sense," and make sure that he knows his colts' dispositions and to gain their confidence. Then, by always being on guard, without seeming to be so, to start only what he knows he can come through with, and it "follows as the night the day" that he will soon have his colts working out his will in every reasonable way. A discouraged horse is about as much use in the world as a discouraged man. It pays to take time with kindly firmness and break the colt without breaking his spirit.

B. C.

H. G. E.

Lameness in Horses. XII

RINGBONE.

Ringbone is a term applied to a bony deposit situated between the fetlock and coffin joints. The deposit may encircle the whole limb, or may be noticeable only on one or both sides, or in front only, but is called ringbone in all cases. Ringbone is of two kinds, viz., false and true. False ringbone is an exostosis (a bony growth) on the bone between the fetlock and pastern joints, but it does not involve either joint and does not cause lameness, except in very rare cases, when it is very large. Some consider that it does not constitute unsoundness, but as there is a danger of the growth extending, and involving the joint, hence a horse affected should be considered unsound.

True, ringbone is one in which either pastern or coffin joint, or both, are involved. Where the coffin joint is diseased, it is called low ringbone, when the pastern joint is diseased it is called high ringbone. By involving the articulations, these cause more or less acute, obstinate, and, in some cases, incurable lameness. Ringbones, whether high or low, vary greatly in size, but the degree of lameness is not indicated by the size of the deposit. An animal with but a small deposit may go very lame, while another, with a larger growth may show only slight lameness.

Causes.—In most cases there is an hereditary predisposition, and if the breeding of the animal affected can be traced back for several generations, it will generally be found that an ancestor, more or less remote, suffered from the disease. It is usually caused by concussion during progression. By this means inflammation is set up in the inner layer of the bone (called the cancellated tissue). This extends and involves the outer structure (called the compact tissue); an exudate is thrown out; this becomes converted into bone, causing the visible enlargement. When the joint is involved, the cartilage which covers the ends of the bones is destroyed, and this causes acute lameness. While it is doubtless possible for a ringbone to result from an external injury, as a kick, blow, etc., it is very seldom that such occurs.

Symptoms.—In the majority of cases lameness is irregular in the early stages; sometimes lameness will be well marked, at others not so acute, and some times entirely absent. As the disease advances and the joint or joints become more thoroughly involved, lameness becomes constant, and more or less acute. In cases when the coffin, or navicular joint (which is situated within the hoof) is diseased, lameness is often apparent for considerable time before any enlargement can be noticed, as there can be no visible enlargement until it extends up the pastern bone and shows above the hoof. Lameness, in these cases, is often hard to diagnose, as there is no visible cause, but the enlargement soon becomes apparent, when the diagnosis can be confirmed.

The somewhat common idea that ringbone is due to the presence of some abnormal organ or object called "the feeder," and that the removal of this feeder, by cutting into the fetlock pad and dissecting out a quantity of fat or other tissue, is, of course, totally without foundation. Ringbone is purely a disease of bone; it originates in bone, and, while it involves other tissues, and destroys them, it is essentially a bone disease and should be treated as such.

The inflammatory action continues, and the exudate thrown out becomes ossified (converted into bone). When the articular cartilage of a joint is involved, it becomes destroyed, and, as the process of ossification continues, the bones of the joint become united; (this process is called ankylosis) and, of course, cease to exist as a joint, the bones being united into one. When ankylosis has become complete, inflammation subsides and lameness ceases. There may be faulty action, owing to the stiff joint, but pain is no longer present, and the animal will go practically sound, notwithstanding the absence of the joint.

Treatment.—In treating a case of ringbone, the practitioner aims at simply curing the lameness; he does not attempt to remove the enlargement. The enlargement is a growth of bone; the bone is diseased to its innermost parts, and a little consideration will convince an intelligent man that it is impossible to effect a removal of the enlargement. Treatment should be directed to the hastening on of the process of ankylosis, for, so long as this is not complete, lameness will be shown. This is done by counter-irritation in the form of blisters or firing, which sets up a superficial irritation, increases the internal inflammation, hastens the process of ankylosis, which is followed by a subsidence of inflammation and lameness. In quite young animals, repeated blisterings may effect a cure, but in the majority of cases it is better to fire and blister at first. This should be done by a veterinarian. It is often noticed that the patient will go lame for considerable time, sometimes for eight or ten months, or even longer, after the operation,

as the process mentioned is sometimes very slow. When a recovery has not taken place in ten or twelve months, it is well to fire again, and if this fails to effect a cure, we may decide that the case is incurable, and the only means of removing the lameness is by the operation of neurotomy, which consists in removing the nerve supply to the foot. The operation can be performed only by a veterinarian. It does not cure the disease, but removes lameness by removing sensation. As the process of repair and decay goes on in the foot after the operation, in just the same manner as before, and the animal will not show symptoms of pain, hence is liable to become totally useless, from various causes, it is not considered wise to operate except in cases where the animal is practically useless from severe lameness.

WHIP.

Horse Memory and Habits.

EDITOR "THE FARMER'S ADVOCATE":

During a season when many of us do a little colt training on the side, it is well to take advantage of the remarkable faculty of memory possessed by horses. This was recalled to my attention the other day. Over five months before I had driven with a single horse by an unusual street route into my market town. At a certain corner I turned off on to a little side street to stop at a friend's place, returning over the same course in the afternoon. During the following months I drove many times to town, but not over the particular streets in question until yesterday. I had no purpose of turning at the little side street, however, but on reaching the corner immediately the horse started to make this turn I gave him five months ago, and it required a good tug on the reins to keep him to the straight course. This recalls another instance during the past year. For the first and only time I drove through the road gate-way into a farm yard and remained about half an hour, and then returned the way I had come. In a month or two afterwards, not having used the road in the interval, I chanced to drive over it again, but in the opposite direction. On coming near the entrance to the farmyard above referred to, my nag at once turned with determination to the gate-way as though it were a daily routine. I could cite similar cases with other horses, but these are sufficient to suggest to what extent advantage might be taken of the vivid and seemingly permanent impression on the horse by a single occurrence. If desirable habits are so easily inculcated it certainly attaches importance to every action in handling horses, young or old. Other readers could no doubt relate experiences bearing on this point.

Middlesex Co., Ont.

JOHN JEHU.

LIVE STOCK.

Making Pork Out of the Spring Litter.

Almost anyone can raise a litter of pigs, from weaning time to six or seven months of age, but one feeder can often bring them along much more profitably than can another. Simply raising them is not all. They should be raised economically, or in a broader sense of the word, successfully. It is a fairly easy matter to produce hogs for 9 cents a pound, and show a profit, but, unfortunately for the farmers, hogs do not always sell around \$9 per cwt., and we can never tell what they will be worth six months in the future. The buyers, taking cognizance of the supply, determine what the price shall be. In the production of swine, and other kinds of live stock, we should endeavor to make the cost of gain as small as possible in all cases, and still obtain the desired quality in the finished animal. This does not imply a meagre bill-of-fare. Judicious feeding and care, however, are necessary.

A stunted, uneven litter of pigs is a difficult proposition to start with. A stunted pig has not many months to overcome the handicap, and it is likely to show it to its last day. To overcome this difficulty, have the sow in proper condition when she farrows; feed her lightly at first on warm slop, containing a little middlings or bran, and do not bring her to full feed for a week or ten days. After a few days, when the sow begins to regain her normal condition, there is nothing better, as a ration, than a mixture (equal parts) of finely ground oats and middlings allowed to soak between feeds. If sweet skim milk can be added, the ration will be an excellent one. Wheat bran and shorts, treated in the same way, and augmented with skim milk is also very suitable. Some feeders recommend a mixture of chopped rye, with half its weight of wheat bran added, and allowed to soak for 24 or 36 hours. The milking sow will require plenty of slop, or water, to maintain an adequate supply of milk.

Many breeders make the mistake of weaning the pigs too young. It is sometimes necessary to have them away from the sow in time to breed for another litter the same year. However, this can usually be managed, even when the young run with the dam for eight weeks. Gradual weaning is less likely to give the youngsters a set-back, from which they do not readily recover. At about three weeks of age, the pigs can be taught to eat. At this stage they should be provided with a trough in a corner of the pen, or run, which is inaccessible to the sow. New milk is best to start them with, but, after they "get the habit," their allowance can be changed to skim milk and porridge, made

comes very slow. In ten or twelve days if this fails to cure lameness is incurable, lameness is by consists in repair and operation. It does lameness by repair and operation, in just animal will not be able to become is not considered the animal is.

WHIP.

Habits.

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the Spring

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of ground oats, from which the hulls have been sifted, or middlings. It will not be long before they will frequent their trough many times during the day, and help themselves to the mother's rations besides. If this practice is adopted, it will be little change to them at eight weeks of age, when they are taken from the dam. They should go on thriving and suffer little from the absence of their mother's milk. If there are one or two small ones in the litter, they could be allowed to remain for a few days, in order to consume the excessive supply of milk, and thus prevent injury to the sow's udder. Dry oats and very little slop should be fed to the dam when it becomes necessary to dry her off.

The two common ailments of little pigs are thumps and scours. These frequently result from excessive feeding and indigestion. To prevent these troubles, keep the sow healthy by feeding the proper ration, and along with it provide a few roots which are cooling to the system. The youngsters should not be allowed to become too fat. Thumps are liable to occur when the pigs acquire an excess of fatty matter. We have heard of young pigs, showing symptoms of thumps, being placed in a box. In their endeavors to escape, they take considerable exercise. A couple of hours each day of this performance will often reduce them to a thrifty, healthy condition. Exercise is important in all cases—both for the parent and the offspring. It is conducive to health and thrift.

Middlings and finely ground oats make a very good ration for growing pigs. Barley is also a good feed for shotes after they have acquired some size. A few roots, pulped and covered with meal, will be eaten greedily after the young pigs become accustomed to them. In the total absence of milk, tankage has been used fairly successfully. It seems to supply that desire, or need, on the part of the swine for some form of animal feed. It should be the aim of the feeder to keep the pigs healthy, and thrifty, rather than fat. There should be a growing period, and a finishing period. The ultimate carcass will be produced more cheaply according to this

system, than by excessive feeding from the first. We would not advise skimping pigs, but we would recommend plenty of exercise, and, where possible, a run on good pastures. After the pigs have developed to about 100 lbs. in weight, seems to be a very opportune period to turn them on the grass. The meal ration should be continued to the extent of one half, or three quarters, of what they would be allowed were they confined. There is nothing better as pasturage than a small field of clover or alfalfa. Rape also is good. Where provision has not been made previously, the plan suggested on page 256, in the issue of February 17, might be adopted. There it was recommended to sow oats and barley on a small strip near the building, and seed with red clover, about 8 or 9 lbs. to the acre. Cut the grain for green feed or hay, in late June, and turn pigs on the clover, which will grow up quickly, about the middle of July. Where it is impossible to allow the swine any run of this nature, it might be found profitable to follow some system of soilage. Clover, alfalfa, or rape, cut and thrown to them in their pen, will be appreciated. Later in the season, roots could be used. The demands upon the grain bin can be greatly reduced by supplying an abundance of roughage and cheap fodder. At the present prices of grain, the plan suggested should be adopted this coming season.

A number of swine breeders have made the practice of feeding meal only twice a day and water at noon. One farmer in particular who feeds in this manner uses considerable oil cake with the meal and soaks the mixture in candy pails in the piggery between each feeding.

As a conditioner, provide a box, and in it keep a mixture of salt, sulphur, hardwood ashes and lime. Give the pigs free access to it at all times.

Corn is one of the best feeds that can be used during the finishing period. A part of the ration could be barley or wheat. In fact, a mixture of the three would give very excellent results.

The cattle beast has six molars in each arch, on both sides of the jaw, making twenty-four in all. The arch is shorter as the teeth are smaller. The first molar is quite small; the second is larger, and they increase in size to the sixth. The first three occupy about one-third of the arch, and the last three occupy the remaining two-thirds. There are three temporary molars, and six permanent molars in each arch. According to Girard, an authority on the dentition of animals, the first temporary molar appears from the sixth to the twelfth day, following the eruption or the appearance of the second and third molars, which are sometimes through the gums at birth, or appear immediately after birth. The accompanying table indicates approximately when the different teeth appear. In one column will be found the periods of eruption according to Girard while in two of the columns are the periods of eruption for precocious and common animals according to the average of authors. It will be seen that there is considerable variation in the eruption of the teeth. This depends upon the quantity and quality of the feed upon the breed of the animal, and upon other circumstances which may influence dentition.

ERUPTION OF TEMPORARY AND PERMANENT TEETH IN THE OX

	Girard	Average Author	
		In Precocious an's	In Common animals
Temporary Incisors—			
Pinchers.....	At birth.....	At birth.....	At birth.....
1st Intermediate.....	At birth.....	At birth.....	At birth.....
2nd Intermediate.....	5th to 9th day.....	5 days.....	12 days.....
Corners.....	13th to 19th.....	12 days.....	18 days.....
Molars—			
1st.....	6th to 12th.....	6 to 12 days.....	18 to 30 day.....
2nd.....	Earlier.....	At birth.....	After birth.....
3rd.....	Earlier.....	At birth.....	After birth.....
Permanent Incisors—			
Pinchers.....	19 to 21 mos.....	1 yr. 6 mos.....	20 mos.....
1st Intermediate.....	2½ to 3 yrs.....	2 yrs. 3 mos.....	2 yrs. 9 mos.....
2nd Intermediate.....	3½ to 4 yrs.....	3 yrs.....	3 yrs. 6 mos.....
Corners.....	4½ to 5 yrs.....	3 yrs. 9 mos.....	4 yrs. 6 mos.....
Molars—			
1st.....	2½ to 3 yrs.....	2 yrs. 6 mos.....	
2nd.....	12 to 18 mos.....	1 yr. 6 mos.....	
3rd.....	3 to 4 yrs.....	3 yrs.....	
4th.....	18 mos.....	1 yr. 6 mos.....	
5th.....	2½ to 3 yrs.....	2 yrs.....	
6th.....	3 to 4 yrs.....	2 yrs 6 mos.....	

Determining the Age of Cattle.

Could you give me, through your valuable paper, some hints as to how one might tell the age of a cow by the teeth? If possible I should like to see cuts of teeth for every change, but if not convenient to publish these, kindly state where I could procure a book or pamphlet containing such features.

R. McK.

It was customary for years to determine the age of cattle by the rings on their horns. Since de-horning has been so generally practiced, of late years, it is often difficult to be sure of the age of cows or oxen, and when horns are absent the teeth provide the only evidence of age. In the cattle beast the incisors are lacking in the upper jaw. In the lower jaw there are eight incisors, and these instead of being fixed solidly in their cavities like those of a horse, are imbedded on a layer of cartilage, which allows of a considerable amount of motion which probably protects the cushion of the upper jaw. The two middle incisors are known as pinchers; the next ones on either side, as first intermediate teeth; the next as second intermediate, and the outside ones as corner teeth. Like the horse, the ox has two sets of incisors, the temporary or milk teeth, and the permanent ones. The milk teeth are distinguished from the permanent ones on account of being narrower and smaller. Their enamel is thinner, and they are more curved to the side. Incisors scarcely reach their full development when they commence to be worn by contact and wearing action with food. The wearing commences at the anterior or front border and removes the enamel towards the posterior, or back part of the upper face. When it has completely removed the conical eminence and the lateral gutters, the tooth is said to be levelled and a table is formed.

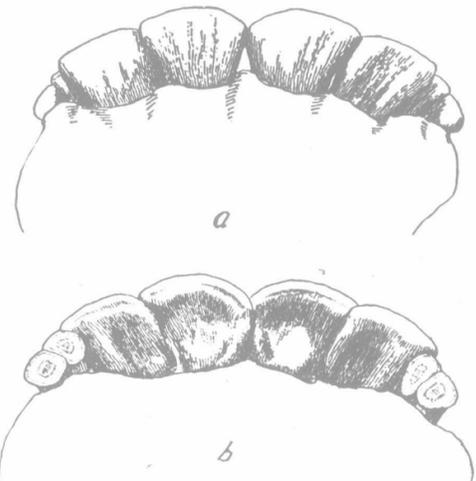


Fig. 2—Pinchers and first intermediate teeth. This illustration represents a mouth at approximately two years and nine months. (a) External face. (b) Internal face.

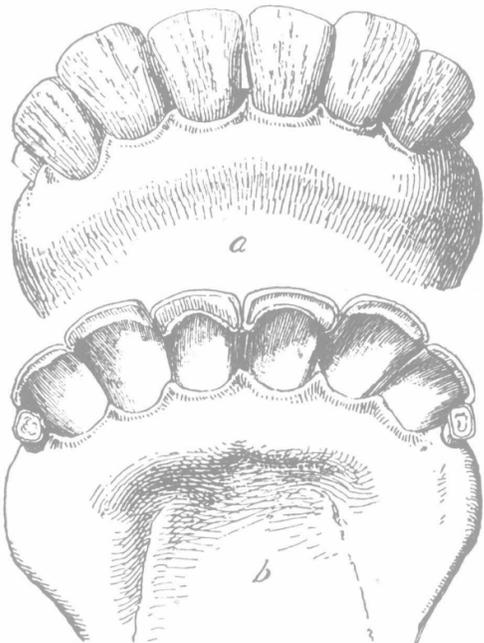


Fig. 3—A mouth at three and a-half years.

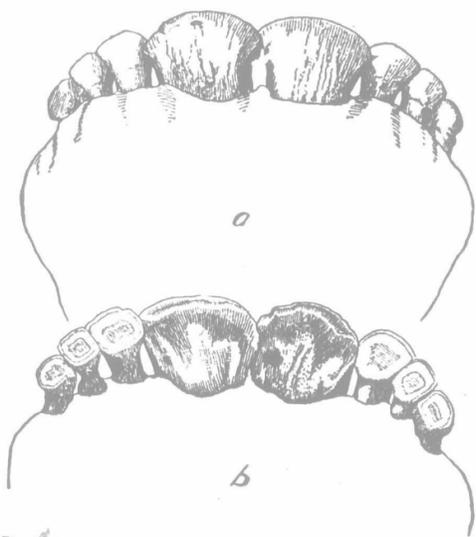


Fig. 1—The permanent pinchers in place. This is approximately a two-year mouth. (a) External face. (b) Internal face.

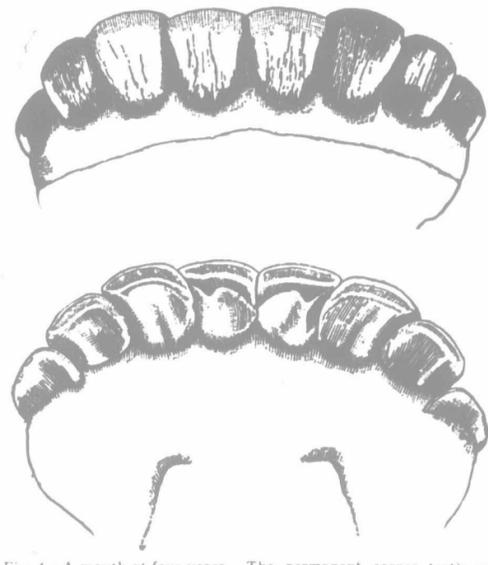


Fig. 4—A mouth at four years. The permanent corner teeth are just appearing, but the crowns are not completely clear of the gums.

The calf is sometimes born with no incisors, but usually the pinchers and first intermediate teeth appear through the gums. The second intermediate teeth appear about the tenth day, and the corner teeth seven to ten days later, but they sometimes appear as late as the thirtieth day.

At the end of about twenty months, the temporary pinchers are replaced by the permanent ones, which will have assumed their natural position usually at the end of two years.

Between two years and three months, and two years and nine months, the permanent first intermediate teeth, or those coming next to the pinchers, should appear. Figure 2 shows the permanent intermediate teeth in place. The second intermediate temporary teeth are being pressed upon, and being slightly displaced.

Between three years, and three years and one half the second intermediate milk teeth will be replaced by the permanent ones. In Figure 3

the second intermediate teeth have reached the level of the arch, and the enamel has commenced to show some signs of wear.

Between three years and nine months, and four and a half years, the permanent corner teeth are through the gums, and the mouth is complete. Figure 4 shows where the permanent corner teeth have just replaced the temporary ones; they are still in an oblique position, not having completely emerged from the gum.

The levelling period of the permanent teeth can now be studied. At five years the pinchers have commenced to level. At six years the pinchers are levelled, both pairs of intermediate teeth are nearly so, and the corner teeth are somewhat worn. This is shown in Figure 5(a). At seven years the first intermediate teeth are levelled; the second intermediate are much worn, and the corner teeth will have lost their enamel at the anterior extremities. At eight years the entire tables are levelled, and the pinchers commence to show a concavity, which corresponds to a convexity of the cushion of the upper jaw.

At nine and ten years this concavity extends to the intermediate teeth. The table of the pinchers is almost square, and the dental star of the pinchers, and first intermediate teeth has become long and distinct. During this period from six to ten years, the rounded arch formed by the incisors gradually loses its convexity until it almost forms a straight line. The teeth appear to separate, and the gum shows between them.

From this time on there is a progressive change in the shape of the teeth; the crowns become worn down with more or less rapidity; they diminish in size; the dental stars become larger and square, the teeth seem to separate, and the retracting gum leaves the yellow roots uncovered. At eleven to twelve years of age the teeth of the animal will become triangular in shape, and will commence from this time on to be worn to the stubs.

THE FARM.

A Question Worthy of Thought.

EDITOR "THE FARMER'S ADVOCATE":

When we see an article in "The Farmer's Advocate" signed "W. C. Good," we know it is worth reading. His "Questions of the Day in Canada," in your issue of Feb. 17, is no exception. It contains, in a comparatively few words, many constructive ideas which our governments, both provincial and federal, should consider and act upon.

What Mr. Good says on the disastrous effect of indiscriminate recruiting in rural districts, every man in the country knows. What he says on the conscription of human life, without conscription of wealth, must appeal to every thinking man as the plainest of plain common sense and justice. His remark that "those who have guided this country's public policy during the last quarter of a century are not to be trusted," is as true as any indictment that ever was penned, as one who has roamed the corridors and committee rooms on Parliament Hill, and reported untold reams of verbiage in the gallery, until utterly satiated, can abundantly testify.

I would like to write on the wall, in words of fire, that every farmer and every thinking man in this great Dominion might see and heed, that "those who have guided this country's public policy during the last quarter of a century are not to be trusted." Their motives, as Mr. Good says, "may be benevolent; if so, their stupidity, greed, and lack of foresight, is almost incredible."

After years of close contact with political life at Ottawa, let me assure the farmers of this Dominion, who are the chief sufferers at the stupid, grafting hands of "Ottawa," that in the historic words of Sir Mackenzie Bowell, political Ottawa, as I have known it, and as every man who knows it knows, is mainly "a nest of traitors." Thank Heaven there are notable exceptions, but they are so over-powered by the grafters, party henchmen, and log-rollers, that they are less than voices crying in the wilderness, for, amid the din of the market-place, where this country's interests and resources are literally bought and sold, practically in the open, their voices are scarcely heard at all.

Then let me again quote Mr. Good, whose words are so apposite that they cannot be improved upon, "If this country is to be saved, democracy must become a fact instead of a name amongst us, and power must be given to those who see, instead of those who are blind," and, I would add, corrupt.

"It is admitted on all hands," says Mr. Good, "that the development of our primary industries is an imperative necessity, and yet these industries have been throttled and hampered and burdened with the support of innumerable parasites; and now, in addition, comes the added burden of a huge war debt, which must fall ultimately upon productive industry, already weakened and tottering. What is the end? Anyone whose conscience and mental faculties have not been drowned by a surfeit of ill-gotten gains can see for himself."

I am quoting so much from Mr. Good's admirable article because I feel that he hits the real, red-hot iron with a sledge hammer, wielded by strong arms that know where and how to strike with accuracy; and because I feel that his terse sentences are a message to farmers which ought to be borne home by constant reiteration.

And now I will quote again what is even more

important than anything quoted before, because Mr. Good's words are constructive and show "a way out."

"There is, I believe, a cure, a composite one. A new spirit must take possession of the people, and a new purpose animate them. A real interest in politics must be born, false gods must be dethroned, and false prophets banished. Forms of taxation, hitherto accepted without challenge, must be examined, and, if pernicious, ruthlessly abolished. Industry and commerce must be freed from the burdens hitherto and now oppressing them, and labor must be guaranteed a just return."

"All this and more must be done. But it will not be done easily or quickly. It may be done, figuratively if not literally, through a sea of blood, if done, social health will be restored. If not done, this people, politically and socially, will decay and perish, like many nations in the past, and what material evidences of its civilization endure will be exhumed in future ages, like the temples and pyramids of Egypt, silent monuments of grandeur, folly and slavery. If we had discerning eyes we should see many temples and pyramids in Canada which are just as truly significant of national folly and economic slavery as any in ancient Egypt. But we have not yet discerning eyes; we do not really believe that the road to material prosperity is by seeking first the Kingdom of Righteousness. Shall we see or perish?"

The part of the foregoing quotation that farmers need first to take home and make, as it were, a part of their being, is this: "A new spirit must take possession of the people and a new purpose animate them." In plain, every-day terms, we have got to

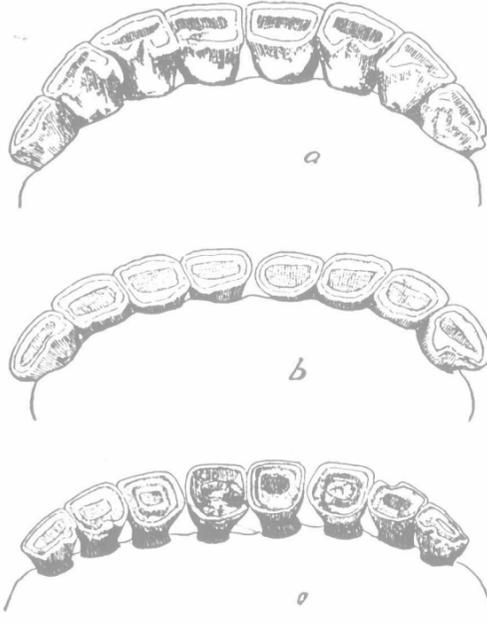


Fig. 5—The levelling of the permanent teeth. (a) Six years. (b) Eight years. (c) Ten years.

cease being little Liberals and little Conservatives, and become plain Canadian citizens intent on having this country governed, (or, to use a more "business" term, "managed") in a clean, common sense, business-like manner, with the interests of the whole people generally at heart; not, as in the past, and at present, with one section of the people dominant and legislating almost wholly in their own and their friends' interests, utterly forgetful of—or, to use a better term, ignoring—the real, vital business needs of the country.

In a word, there are too many lawyers, and too many representatives of High Finance and Big Business, in Parliament. These three classes form a clique as powerful in the government of this country, and almost as mischievous, as the war lords in Germany. A newspaperman who "does" Parliament Hill for a few sessions, soon learns when things are stripped of their veneer and you get down to calling a spade a spade, there was very little of that most admirable quality which we call "Sincerity," to be found in those corridors now vanished in flames Peace to their ashes! Is it too much to hope that Parliamentary life may become purified and revived by the fire? I am afraid so—unless, as Mr. Good says, "a new spirit takes possession of the people and a new purpose animates them."

For, mark you this, Parliament is just as good and no better than you and I and Brother Smith, and the other fellows on the next concession please to make it. I say "no better." Just as long as we send so many smooth-skinned lawyers, and other glad-hand experts at making loopholes and jumping through them, to represent us in Parliament, and leave men home like W. C. Good, Peter McArthur, E. C. Drury, and a few others we could name—men of honesty, of undoubted ability, common sense, and discernment—just as long as we continue to do this thing, we shall have trickery, jobbery, graft, and every kind of dirty ward politics literally oozing out at every crack of Political Ottawa, with Sincerity hiding away back among the Gatineau Hills, and Honesty and Righteousness standing as much chance as a straw hat in the swirl of the Chaudiere Falls.

Politics!—"the science of government; the regulation and government of a nation for the preservation of its safety, peace and prosperity." That's the dictionary and the real meaning. The real meaning to too many of us is "a contest of strength between two parties, wherein the boys on one side strive with might and main to down the other side," with the ward heelers sic-en' em on, and supplying the filthy lucre to buy over any doubtfuls that can be bought, and the silk-skinned lawyer-candidate making little non-committal, mouse-colored speeches here and there; then the automobiles and fast horses, and much drunkenness on Election Day, followed by five years' denunciation of "our representatives" and all their works.

And that is the way Canada is governed! Beginning at its source, this dirty, corrupt business and these scandals at Ottawa, which rile us and fill us with righteous indignation, were hatched and started on their evil way right in our own sub-division, and by none other than ourselves. In simple language, we get just what we pay for, and I fear me we shall keep on ordering the same old dish and then blaming the cook, just so long as the present system of government and choosing representatives survives.

It is curious that while people deplore and "resolute" against a system and its evils for four or five years on end, they should become so hypnotized and unbalanced by an election campaign as to vote again in the same old way, and for the same old parties and platforms.

The only remedy appears to be a radical change of the present out-of-date system; and the only substitute that has appeared to date as a working success is the Initiative, the Referendum, and the Recall, which, where it has been tried, has certainly increased the people's control over governments.

"If this country is to be saved," says Mr. Good, "democracy must become a fact instead of a name amongst us, and power must be given to those who see, instead of those who are blind." In other words, to use the axiom of early French radicalism, "the cure for the evils of democracy is more democracy."

It is one of the interesting facts about putting direct legislative powers into the hands of the people, that the people never afterwards get convinced that they don't know how to use those powers. As an American writer has put it, "you can go out and talk yourself black in the face, trying to persuade them that they are over-working themselves with the effort to understand about their own business, and that they haven't the intellectual calibre to transact it as well as you could do it for them; but you don't get them."

In a later article I will endeavor to sketch briefly an outline of this new form of government, that readers of "The Farmer's Advocate" may see its common sense and simplicity.

One thing is certain: this war is a melting-pot into which many of our present institutions must surely go, and among them will be many of our time-honored systems of government, local, provincial and federal. Britain has shown the way by nationalizing her railways overnight, as it were, by a stroke of the pen, by practically revolutionizing her financial system in a day or two, and doing other radical, common sense things, which Big Finance and Big Business in ordinary times would have fought against for years, right back to the last ditch.

This war, at least, proves that when we are put to it we can almost perform miracles, simply because there is no time for humming and hawing, and because we won't count the cost at such times. After the war it will be surprising if the people of Canada, in unison with the rest of the class-ridden world, don't pull the wool from their eyes, and, with the same determined recklessness with which they have fought the war, throw off some of the shackles which have impeded their progress and prosperity.

And the worst shackle is the shackle of party politics, wherein men array themselves against each other, too often for no more sensible or justifiable reason than actuated the German people who allowed themselves to be arrayed against Belgium and France and Russia, and the rest of the Allies.

The simile I have used seems strong and extreme, and, yet, when you look at it broadly, is it so extreme after all? The conflict in Europe we call War Now, war is a contest carried on by force of arms, a state of violent opposition, hostility, enmity. We speak of "the art of war." Well, if party politics at election time isn't all, or nearly all, of those things, I'd like to know what it is. Elections are politics in action. Party politics divides men into two hostile (sometimes mighty hostile) camps; there is opposition where there ought to be co-operation for the public good at the most critical times in the life of the country—the Elections.

The people of this country must now be waking up to the fact that all our governments are prodigally extravagant, and viciously careless. Waste goes on and things are done by "the government" (in which you and I are shareholders) which would not be thought of or tolerated for a moment in any large business concern. And the biggest business concern in the country is the government, though you would never think so if you stayed on Parliament Hill for a few weeks while Parliament is in session. We shall shake off the shackles when we discern that something is fundamentally wrong, and that we have been fooled by a few smart theorists and opportunists, who have constituted themselves the ruling class by reason of their wealth or education—superior persons, who knew better what was good for us than we knew ourselves.

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A writer who evidently does his own thinking, the other day penned this: "Unfortunately, educated men are quite as likely to use their education for evil purposes as those who are uneducated, and this is particularly true of lawyers and public speakers. It is only necessary to go into courts of justice, almost any day, in order to see how lawyers use the education they have received to assist them in defeating the ends of justice, and in robbing people of their rights and money. In like manner, a well-educated

speaker is often able to overthrow the arguments and thwart all the efforts of a less brilliant man, who is advocating a noble cause. If a little knowledge is a dangerous thing, how much worse is a great deal of knowledge in unscrupulous hands." The other day no less a thinker than Lord Rosebery had this to say along the same lines: "Mr. Churchill's regrettable resignation opens the way for the appointment of a non-political man of business, who for the purpose of retrenchment would be invaluable to the government, which can never be na-

tional as long as it is a mere collection of party politicians. We want new blood."
"A mere collection of party politicians."
"We want new blood."
Lord Rosebery must have been talking to Canadians!
Northumberland Co., Ont. W. L. MARTIN.

Provide suitable stalls in which cows may be put when about to freshen. It is well to disinfect each stall after the calf is born and the dam removed.

Farming a Perth County Farm for Profit.

Maple Leaf Stock Farm in Perth county has an air of prosperity about it. The comfortable house, commodious barns and thrifty stock, all point to good management on the part of the proprietors. A place for everything and everything in its place, appears to be the rule followed. John Hooper has taken his sons into partnership with him, and all work together to make Maple Leaf Farm the most desirable place to live in, in Perth County. In all lines of agricultural improvement Mr. Hooper is a leader in his community.

The home farm comprises 125 acres, of clay-loam soil, with a gravel sub-soil. On the adjoining farm of 126 acres, one of the sons is located, and a short distance away is a pasture farm on which the young stock is run during the summer. Messrs. Hooper did not always have things so comfortable as they have at the present time. The farm was somewhat run down when it was purchased some years ago, but, by rotation of crops, growing clover and feeding live stock, the fertility has been increased until at the present time it is claimed to be one of the most productive farms in the county. Five years ago fire destroyed the barns, necessitating the erection of the present large structure. In planning the barn and stable the aim was to have everything as convenient as possible in order to save labor.

The barn is T-shaped, as shown in the accompanying illustration. The main part is 40x102 feet, with a cement block foundation. The stable is fitted throughout with steel stanchions and so arranged as to tie 23 head of cattle in one row, with 3 feet for each stall. On the opposite side of the stable there is room for a number of calves, stanchions for 10 head of cattle, a box stall, water tank, separator room, and large feed room. At the south end, there are single stalls for 5 horses, besides a large box stall. The stable floor is cemented throughout, and the mangers are of cement. There is a gravel pit on the farm, and Messrs. Hooper put in all the cement work themselves. The ventilation for this part of the stable is by means of one-inch pipe, put in about one foot from the floor, run up through the wall, with an outlet about a foot from the top of the foundation. This system has given entire satisfaction. The stable is well lighted by means of a number of large windows, about 3 feet wide and 4 feet long, put in vertically and made to slide up and down. At the north-east end of the main barn is a frame building, 34 by 56 feet, with room for tying 18 head of cattle, besides five box stalls. This part is built of two-ply lumber, and one-ply of building paper, and it is believed to be more satisfactory than the cement block wall. There are four windows on the south side and five on the north, the windows being made to slide up and down and are used as a means of ventilation. A large silo, 14 by 45 feet, is built on the north end of the barn, directly in front of the feed room, and roots, silage, and cut straw are conveniently placed in readiness for feeding. A large two-wheeled cart is used for conveying the feed along the passageway. It is the intention to put in a feed carrier for this work. The litter carrier runs from all parts of the stable, hog pens, and horse stable, to the yard, and is considered one of the greatest conveniences on the place. The well is located in the passageway of the main stable and a gasoline engine is used for pumping water to the large cement tank near by. Water is piped to all parts of the stable, the cattle being supplied with basins between each two. By means of a hose, water is conveyed from the tank in the stable to the engine at threshing time. Arrangements are made for putting down hay and straw in each passage way as required. Under the stairs of the feed room is built a chop bin which is filled from the barn. A similar bin is built for oats in the horse feed passage. The barn is large, having 20-foot posts on the outside and a hip roof. There are no breast beams, and it is possible to drive anywhere in the barn when it is empty.

THE HOG PEN.

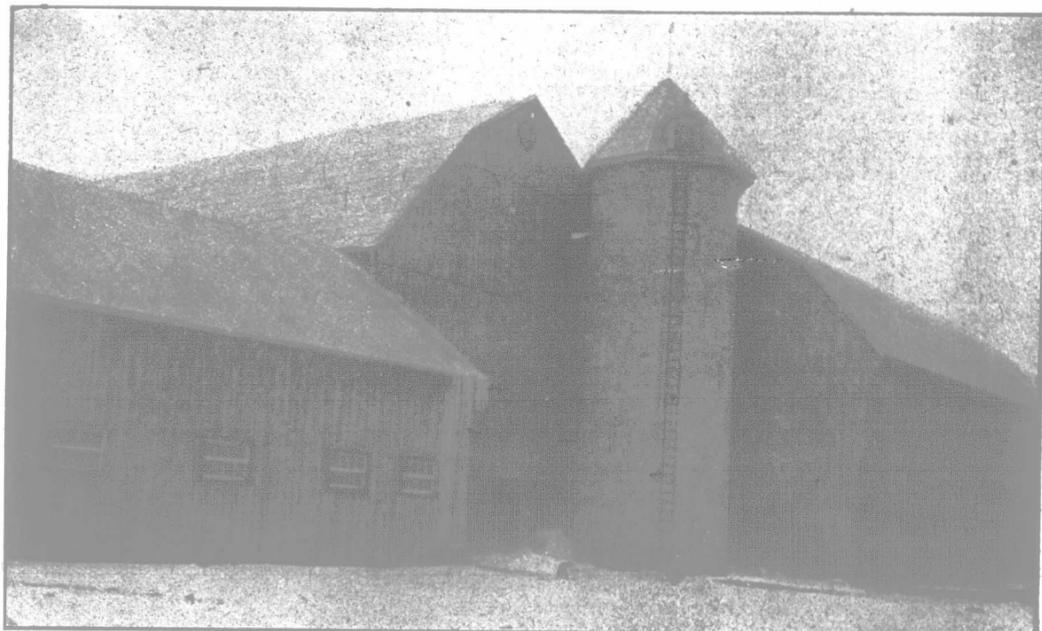
The main barn is connected with the hog pen on the north-west corner. The hog pen is 30 feet 6 inches by 63 feet, with a cement wall 8 feet high, and a straw or hay barn over it. On the north side are six pens, which are used for feeding hogs, and on the south side are seven pens for sows or young pigs. The floor and troughs are of cement. There has been no trouble from pigs sleeping on the cement, but raised sleeping-beds were put in two or three pens as an experiment, and, so far, are proving quite satisfactory. In the feeding pens considerable trouble was experienced from the larger pigs crowding the smaller ones in the trough. This was remedied by fastening 8-inch plank edgewise every fifteen inches to the front partition, which centres over the trough. Each pig now has its own stall when feeding, and cannot easily be crowded out by another pig. A large window in each pen furnishes sufficient light. The litter carrier from the main barn extends down the passageway between the pens, and is used to convey the manure to the main yard.

In feeding the hogs, skim milk, oat chop and roots are used for starting the pigs. For finishing, mixed grain as grown on the place is principally used. About 50 pigs are fed off this farm each year, but with the best of care and feed, it is found difficult to have the pigs weighing 200 lbs. before they are seven months old.

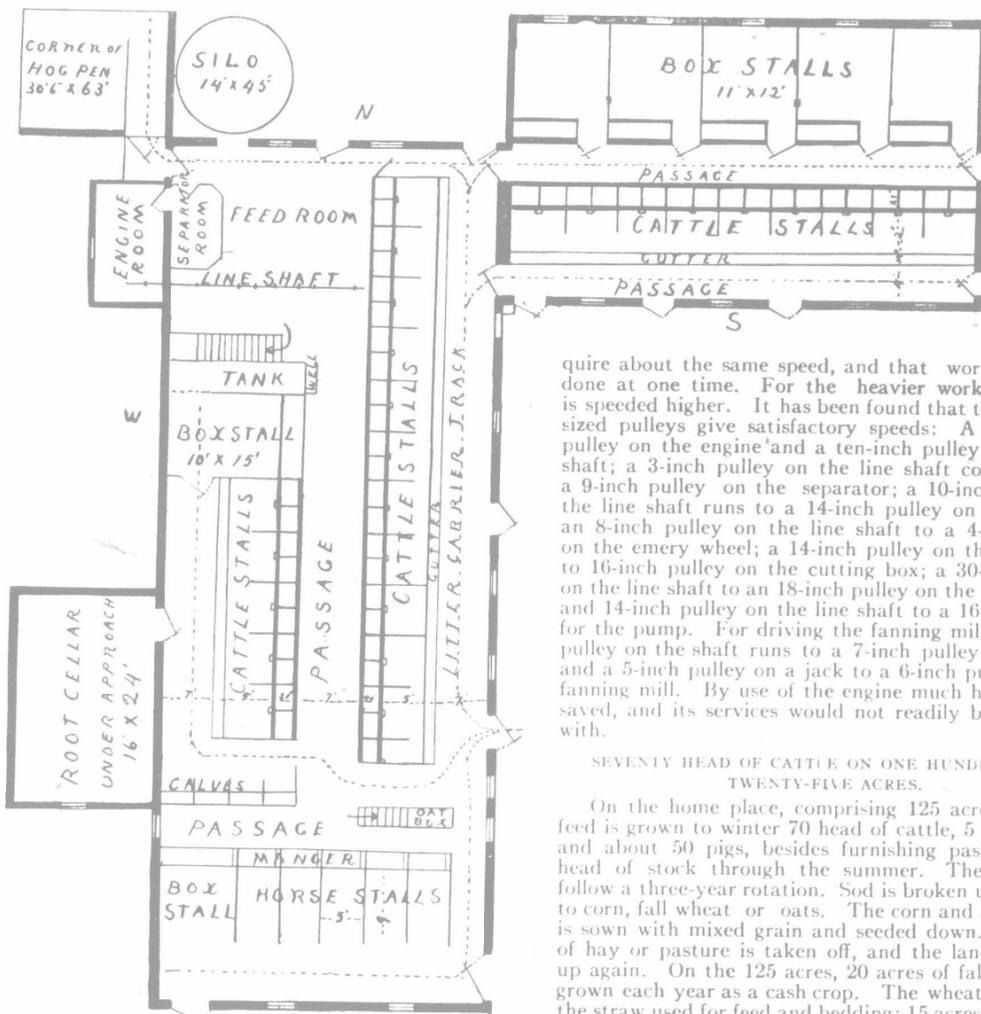
A LABOR SAVER.

A five horse-power gasoline engine was installed at the time the barn was built, and has been doing service ever since. It is considered a great labor saver, and is

harnessed to do a large amount of work. During the five years the engine has been running, \$10 would cover the expenses, over and above gasoline and oil. It was estimated that 50 gallons of gasoline would run the six winter months. A line shaft runs from the engine room, through the feed room, and is fitted with various sized pulleys necessary to give the proper speed to the different machines. A cream separator, root pulper, emery stone, and pump, are run downstairs, and in the barn the cutting box, grain roller, and fanning mill are connected up. The pump, pulper and separator re-



Arrangement of Buildings on Maple Leaf Farm.



Plan of John Hooper's Barn.

quire about the same speed, and that work is usually done at one time. For the heavier work the engine is speeded higher. It has been found that the following sized pulleys give satisfactory speeds: A twelve-inch pulley on the engine and a ten-inch pulley on the line shaft; a 3-inch pulley on the line shaft connects with a 9-inch pulley on the separator; a 10-inch pulley on the line shaft runs to a 14-inch pulley on the pulper; an 8-inch pulley on the line shaft to a 4-inch pulley on the emery wheel; a 14-inch pulley on the line shaft to 16-inch pulley on the cutting box; a 30-inch pulley on the line shaft to an 18-inch pulley on the grain roller; and 14-inch pulley on the line shaft to a 16-inch pulley for the pump. For driving the fanning mill, a six-inch pulley on the shaft runs to a 7-inch pulley on a jack, and a 5-inch pulley on a jack to a 6-inch pulley on the fanning mill. By use of the engine much hard work is saved, and its services would not readily be dispensed with.

SEVENTY HEAD OF CATTLE ON ONE HUNDRED AND TWENTY-FIVE ACRES.

On the home place, comprising 125 acres sufficient feed is grown to winter 70 head of cattle, 5 or 6 horses, and about 50 pigs, besides furnishing pasture for 20 head of stock through the summer. The aim is to follow a three-year rotation. Sod is broken up and sown to corn, fall wheat or oats. The corn and root ground is sown with mixed grain and seeded down. One crop of hay or pasture is taken off, and the land is broken up again. On the 125 acres, 20 acres of fall wheat are grown each year as a cash crop. The wheat is sold and the straw used for feed and bedding; 15 acres of oats and 20 acres of mixed grain (one bushel of oats, one bushel of barley, and one half bushel of peas per acre), com-

prises the grain crop. Fifteen acres of corn is usually grown; this is sown in drills and the improved Leaming is preferred to all other varieties. It gives immense crops on this farm. It is usually cut in the glazed stage, or a rule which has proven satisfactory is to cut the corn when it is past use for the table. Five acres of roots, and one of potatoes, make up the hoed crop. About twenty acres of hay is usually harvested, and the remainder of the farm is in pasture. All grain crops on this farm are seeded every spring, the mixture being 6 lbs. of clover, 6 lbs. of timothy, and 2 lbs. of alsike per acre. After bringing the amount of stock mentioned this far through the winter, there is still an ample supply of feed in the barn, granary and silo to supply the requirements of the stock until they are turned to pasture.

From the stables are taken about 500 loads of manure each year. When possible, this is drawn directly from the stable to the field during the winter and spread ready for corn and roots.

THE SYSTEM OF FEEDING.

Practically all the stock kept and fattened is raised on the farm. About 16 grade Shorthorn cows are kept all the time, and an endeavor is made to have them freshen in the fall. The calves are given whole milk for the first two weeks, and gradually weaned to skim milk. By the time they are one month of age they are receiving 15 lbs. of skim milk per day, and rolled oats, roots, and clover hay are kept before them. After they are two months old they are fed a little silage, and appear to do very well on it. Calves that are dropped before January 1 are ready to go on grass in the spring. A few calves are usually bought to bring the number of young stock up to twenty or twenty-five.

The yearlings are wintered on silage, cut straw roots, hay and a little grain. They have water before them all the time and salt is given them with the feed. The two-year-olds which are being fattened, receive the same ration of roughage, and one gallon of grain (oats and barley) twice a day. The cows are given all the roughage they will eat, and grain is fed according to the amount of milk they are giving. The cows are never turned out during the winter, as it is believed they do better to remain in the stable. Silage forms the basis of the ration for all the cattle, and if it were not for it the number of cattle would have to be reduced. Roots are also valued highly, but are pulped before feeding.

Side Lights on the Budget.

BY PETER MCARTHUR.

I don't know, but it looks to me as if there were going to be fun for the unregenerate in watching the working out of the new tax on corporations. I remember that a few years ago business men of my acquaintance used to describe all remarks about watered stock as "loose talk." Really, there was very little of that sort of thing. Business was a deep thing, not to be understood by critical laymen, and in the main it was run on conservative lines. Then they would pass their excellent cigars and ask me to forget about it. Of course I found it hard to prove much that might arouse public indignation. Business men stuck together, and as Dogberry would say, they were "all in a tale." They all balked investigations with a tolerant smile, and advised that we should leave well enough alone. But listen to them now. The same men are all talking now, talking loud, and they don't care who hears them. Conservative business men whose stock represents capital invested and profits put back in the business are loud in their protests against being taxed on the same basis as the men whose stock is mostly water. There is no hesitation now in talking about watered stock. No, indeed! It isn't loose talk any more. To show how things might work out if the tax is not modified to meet the situation, let me give you the history of a couple of companies. One has a capital stock of two hundred thousand dollars. Although the business prospered and most of the profits during the past ten years have been invested in machinery, buildings and campaigns to reach wider and more profitable markets, so that the business is now worth easily a million dollars as a going concern, the shareholders can take only fourteen thousand dollars of profit before beginning to pay a tax on profits. Taking into consideration what has been put back into the business and the real value of the concern, they should be allowed seventy thousand dollars before beginning to pay the tax. Another company spent a million dollars in buying up competing concerns, so as to form a merger and then unload five millions of stock on the innocent investors. This means that four millions of water was added to one million of real capital. If they were taxed on their actual investment they would be allowed only seventy thousand dollars before feeling the tax, but it looks as if they would be allowed three hundred and fifty thousand dollars before being taxed. Will the other corporations stand for that? I wot not!

It looks as if it would be impossible to make the new tax apply justly without making it quite clear to a scandalized and indignant public just how much watered stock there is in the country. This attempt at taxation should give those who have been protesting against the issue of watered stock all the material they have been wanting. The issue of watered stock is plain robbery, and as I explained once before, is based on the methods of honest farmers who salt their cattle and let them drink water before having them weighed. It has been asserted that during the past few years about six hundred million dollars' worth of watered stock has been unloaded on

the Canadian public. If the new tax enables us to locate this watered stock it will cause a shake-up in the business world beyond anything that was hoped for even by the most fanatical reformer. Honest business men who fight for their rights will let the public know where the watered stock is, and how unjust it is, and they will do it in a way that no one can dispute. When business men fall out the public will come to its own. Let the merry row go on! As a by-product of the budget the white light thrown on the watered stock game will be worth more to the country at large than the revenue derived from the new taxation.

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And there is another side to this new taxation. It is a direct tax, and every business man will know how much he is paying. And when he pays out money in large sums he vows, by the great horn spoon, that it is going to be properly spent! After this tax is collected the best business brains in the country will be watching every expenditure of the government. Because they will not want the government to come back for more they will see to it that what they contribute is not wasted. And they will see to it that all government money is properly spent. New post office buildings for Skunk's Misery Corners, or a customs house for Gooseneck Lower Falls will be tabooed. When the business men really get interested in public affairs it will be time for a change. Grafting, sinecures and special privileges will be looked into by men who understand business, and what they have to say on the subject will carry weight—even more weight than when they were telling us that everything was all right. If things work out in this way I am afraid that a lot of highly-placed, highly-respectable, high-toned people will have to be honest in future, and the shock will cause them to make a terrible outcry. But will it work out that way? Time alone can tell. Things seldom work out so logically that one is safe in making predictions. But it seems safe to say that business will not go back to the same methods for some time after the application of the new taxes.

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A farmer who is also a thinker remarked to me while discussing the budget: "The most significant thing about it is that it shows that we have reached the end of raising revenue by tariffs. Any increases in that direction would only stop importation and decrease revenue." That being the case, farmers may look for direct taxation when it is necessary to properly shoulder the burdens of the war. And how politicians all hate the idea of direct taxation! Although indirect taxation is the most wasteful and unfair method of raising taxes known to man, the politicians cling to it because it does not let the people know what they are paying. If they are taxed directly they know exactly where they are at, and that makes them critical. When farmers have to pay direct taxes they will be stirred up just like the business men. They will insist on knowing, by heck! just what is being done with all that money. It will be heavy going for political parties that have been in the habit of depending on handshaking and fine speeches. The taxed farmer will put on his specs, get a smooth shingle and a stub of a lead pencil and commence ciphering. And if things don't come out just right what a row there will be! On the whole, if direct taxation comes it will probably cause a business and political clean-up that will be worth more than it will cost. It will enforce a public economy that will cause savings all round. But things may not work out that way. Politicians and business men are "dretful cute."

Clover—A Soil Renovator.

Practically every variety of clover is considered by farmers to be a soil renovator. It does not require four leaves in order to bring luck to the farmer growing it, but clover and riches go hand in hand. This may seem an absurd statement to make, when the price of clover seed is considered, but, even at the present high price, a farmer would hardly be justified in curtailing to any great extent the amount of clover seed to be sown per acre this spring. There is a considerable variation in the amount of red clover seed sown per acre, some farmers obtaining a good catch from five or six pounds of seed, while others sow from eight to ten pounds per acre in order to ensure a good stand. The amount of seed to sow depends somewhat on soil condition, preparation of seed-bed, and vitality of the seed.

It has been noticed that, where clovers can be successfully grown, and a liberal supply of seed is used each year, the land is gradually increasing in fertility, and increased fertility—other things being equal—means larger crops and consequently more money in farming. Many farmers are making a practice of sowing a larger acreage with clover, each spring, than was formerly the custom, and it is believed that the average amount of seed sown per acre is also increasing during recent years. Where three or four pounds of seed was considered sufficient, a few years ago, six or seven pounds is now aimed at, and many farmers consider it profitable to sow as high as ten pounds along with timothy and alsike.

The clover plant is valuable to the farmer because of its ability to take nitrogen from the atmosphere and store it in the soil in such a form that plants can utilize it. To purchase this valuable plant food as a fertilizer, would come very expensive, much more so than securing it through buying clover seed, even at the prevailing price. Plowing under a three-ton crop of green clover is claimed to return to the soil about 40 lbs. of nitrogen, 8 lbs. of phosphoric acid, and 34 lbs. of

potash per acre. Supposing a crop of hay is harvested, the soil will still be in a better condition for a succeeding crop than if any crop, other than a legume, had been grown. Clover roots alone add humus to the soil, increase the amount of nitrogen, make the soil more friable, and open it up, thus allowing for a freer passage of air. Besides being a soil builder, clover, either as pasture or cured for hay, is valuable feed for all classes of live stock. If the aim is to increase the fertility of the soil at least expense, it is advisable to increase, rather than decrease, the acreage devoted to clovers.

True, there are difficulties in the way of growing clover successfully year after year, but it is believed that many of the obstacles standing in the way of securing and retaining a good catch, for one year at least, can be overcome. The clover plant demands that certain soil conditions be granted, if it is to give maximum returns. These conditions are: that the soil be sweet and properly underdrained, either by natural or artificial means; that there be available plant food and favorable conditions for the development of bacteria; that the seed be given a good bed and not covered too deeply. On most farms these demands can be complied with. Soils may be tested for acidity by the use of litmus paper by placing a small strip of blue litmus paper in moist soil, and, if it turns the paper red, lime is required in the soil. Another method is to pour a few drops of acid on the soil, and, if it does not "fry" it is an indication that the soil is acid. Clover does not do well with wet feet. If conditions are such that water remains on the surface of the ground for any length of time, after a heavy rain, few crops do well. The increase in yield of the various cereal crops will pay for a system of underdrainage in a few years, besides assisting in giving the clover plant a chance. In regard to plant food, it is necessary that the young seedling have easy access to available material to give it a start, after which it is able to look after itself, and return more to the soil than it takes out. Where clover has been successfully grown, there is usually sufficient bacteria in the soil. These minute organisms which appear on the roots of the plant are essential to the growth of clover, as they are the means by which nitrogen is absorbed and stored in the plant and soil. If there is reason to believe that the soil is deficient in bacteria these may be supplied by treating the seed with nitro-culture just previous to sowing. A culture is prepared for the different clovers, and may be secured with full directions for using, from the Bacteriological Department, Ontario Agricultural College, Guelph.

For the successful growing of clover, a good deal depends on the seeding operations. Clover seed is small, yet it must contain sufficient plant food in itself to develop the first roots and leaves. These leaves must reach the surface before the tiny plant can commence drawing food from the soil, or atmosphere. If the seed is buried too deeply, the tender growth never succeeds in reaching the surface and is lost. A rough seed bed is not conducive to giving the seed a good start, as it has a tendency to dry out more or less, and the small seed lying near the surface does not secure sufficient moisture to start life. With a seed bed in fine tilth, less risk is involved. The method of seeding is also important. Sowing the clover and grass seed from a seed box, attached behind the grain drill, is the practice most in vogue, but some farmers are trying other methods which, while probably taking more time, are proving satisfactory. It is claimed that by sowing behind the drill, the small seeds fall in the furrow made by the drill, and, when a stroke of the harrow is given, the seeds are buried too deeply. This difficulty is believed to be partly overcome by turning the spouts of the grass-seeder to sow before the hoes of the grain drill. By this method the seeds are covered with the grain drill, but are brought close to the surface again when the harrow is used. Even with time such an important factor as it is, possibly it would pay in the end, especially on some farms, to prepare the seed bed, drill in the grain, give a stroke with the harrow, then sow the grass and clover seeds with a hand seeder, and follow with a smoothing harrow. The seed bed would be made finer by the extra stroke of the harrow, and the seed would have a shallow covering of soil, which is essential for small seeds.

Any farmer who has difficulty in growing clovers, is more or less handicapped, and every effort should be made to find the cause of clover not growing satisfactorily on his particular farm. If possible, make the soil conditions right, then prepare a fine seed bed in the spring, and sow plenty of good seed.

A Four-foot Silo.

EDITOR THE FARMER'S ADVOCATE:

I noticed in your issue of February 10 an enquiry about small silos. If you will allow me, I will give you my experience with a small silo I built 48 inches in diameter and 16 feet high, and I constructed it as follows: The base was of cement. I laid my bed pieces, or sills, in the cement, and then I put the studdings or uprights, which were 2 by 6 and 16 feet long, 12 inches apart on a circle, and I boarded it on the outside with half-inch henlock lumber planed and with two thickness of tarred building paper between. I used only planed lumber on the outside because I wanted to paint. I used half-inch lumber because it was easily bent, as you understand, I built my silo round, and on the inside I lathed it and plastered with cement, and the first year used for clover silage, and the second year for corn and both kept perfectly.

Shefford Co., Que.

M. S. T.

At this season of the year steer feeders begin to leave straw out of the ration and supply mostly hay as roughage.

Economy in Labor.

EDITOR THE FARMER'S ADVOCATE:

As recruiting goes steadily on, it is becoming more and more evident that the farm labor problem is approaching an acute stage. Notwithstanding this, the demand for production continues keen. There is little complaint, as the farmer is patriotic and determined to do his "bit." How much he will accomplish depends on how far he is able to overcome such a handicap. All his ingenuity will be called into action to devise ways and means. He must farm successfully with as little help as possible.

Most of us are engaged in producing milk, beef or pork. To be profitable the feed consumed must be largely home-grown. To accomplish this properly is a pretty fair contract under existing conditions; yet, the writer has noticed, time and again, that some farmers attempt to raise almost every crop that will grow in their latitude. In economics there is a principle known as the "division of labor," which may for our purpose be best defined by means of an illustration. For instance, because a farmer in New Brunswick grows potatoes on a large scale and makes money, it does not naturally follow that a busy dairyman in Ontario can add potato-growing to his operations and be successful. The man who makes potatoes his specialty must employ modern machinery to reduce the cost of production to its lowest possible point. He is therefore able to sell his output to the dairyman at a figure even lower than it would cost the latter to grow his own supply. The suggestion is plain. If farmers would give their undivided attention only to such crops as are necessary to their special line and which they are equipped to produce cheaply, buying other supplies from other specialists, both parties to the transaction would benefit and the cry for help would, in a large measure, cease.

It frequently happens that a good deal of labor is wasted in trying to crop land that is not in condition for cultivation. Suppose it needs underdraining. Several things are likely to happen that will make cultivation unprofitable. Delay in spring means that in order to get the work done on time probably double the help is required. Then, too, undrained land requires two or three times the amount of labor in preparing a seed bed. It is not an uncommon sight to see men shovelling furrows across a field to let off the surface water. Ten chances to one the crop on this field will not pay expenses. Figure up the cost of opening these furrows, add the extra labor in tillage involved plus the difference between a poor crop and a good one, and the result ought to balance the outlay for tiles to put the land in first-class condition.

Sometimes, owing to size or peculiarity in the shape of a farm, there are fields so far removed from the barn that much time is lost during seeding and harvest in going back and forth. Would it not be better to utilize this land for pasture, giving an occasional dressing of basic slag? That is what an English farmer would do, and his advice on managing grass lands is worth considering. Then, instead of having the remainder of the farm laid out in many small fields, have but one to each year of your rotation. That is if a three-year rotation is followed, only three fields will be required. This means an absence of weedy fence rows that require attention, generally at a most inconvenient time, larger machinery may be used and there is less turning with teams and implements.

The various European countries at war are reported as still growing, and harvesting crops as heretofore, with very little, if any, falling off as compared with previous years. Investigations made several years ago by engineers of the Hydro Commission showed that the best hired man employed on many of these farms was an electric motor. Now, with the crop production left to the women and old men, results are practically the same. This country has hundreds of water powers that in the early days were used in running saw mills, grist mills, etc. In a few years, it is to be hoped that these may be applied to the generation of electrical energy, and by means of co-operation be supplied to the farms. There are, however, other satisfactory powers. A gasoline engine will pump water, grind the grain or run the milking machine.

In some sections a good plan has been adopted in connection with the threshing. The thresher carries his own gang and furnishes sleeping accommodation for them, while the farmer pays three cents a bushel and boards the men. Thus the farmer is not compelled to change with his neighbors, and has at least two weeks of time that may be used for work on his own land.

It has been suggested that there is much economy in labor when the soil has been brought to such a degree of fertility as to produce a maximum yield. "A little farm well tilled" will give better and cheaper results than a whole section of wornout land. Why not apply this principle to the quality of the stock kept? Any one who has made a practice of keeping individual records of his dairy herd will not be very long in finding out where some of his labor can be reduced. It is by no means uncommon for small herds of ten or a dozen cows to be giving more milk and consequently drawing larger cheques from the cheese factory or creamery, for their owners, than other herds of double the number.

Evidently the farmer most affected by the scarcity of help is the one who is working along without any system. In most cases the man whose work is systematically directed will accomplish more in dollars and cents than the man who has help, but no system.
Elgin Co., Ont. AGRICOLA.

Eveners for Three or More Horses.

Labor will probably be exceedingly scarce in the spring, but the outlook is for plenty of horse power, provided it can be husbanded and directed to advantage. Where a number of horses have been wintered on the place and will no doubt have to be summered there, every known device that will make it possible to utilize the horses more profitably should be brought into use. Even if the implements are of the two-horse size, it will pay to put three or four horses on to them and work them at a more rapid rate than could be expected of two horses. In the case of the disc, it can be set at a more severe angle and more can be accomplished. In order that farmers may be prepared with eveners and whiffletrees for the many implements and pieces of machinery they will be required to use throughout the spring and early summer, we are herewith publishing

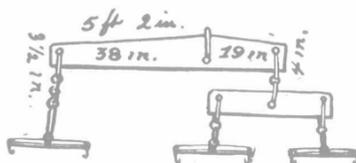


Fig. 1—A common three-horse evener.

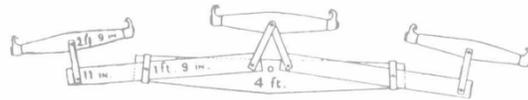


Fig. 2—An evener suitable on harrows and such.

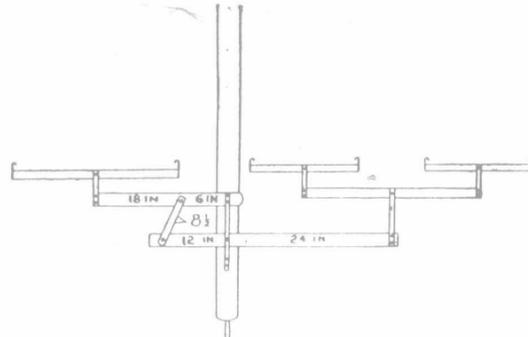


Fig. 3—Three-horse eveners for tongue. This set of eveners does not always distribute the draft evenly.

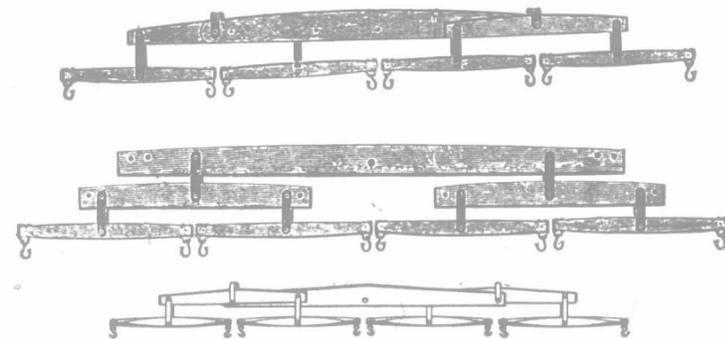


Fig. 4—Designs for four-horse eveners.

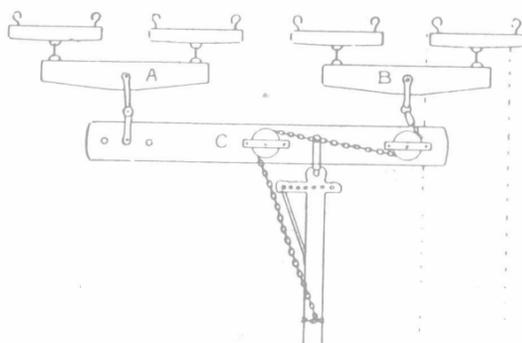


Fig. 5—Four-horse evener for riding plow.

illustrations of some different types of eveners. The size of the horses, the particular implement used, and the nature of the work, all determine more or less the success of any one. It is necessary to some extent to try out those that appear most adaptable, and adjust them according to requirements. The firms manufacturing and selling farm machinery have some excellent eveners and whiffletrees, which can be used to good advantage with the implements they sell. Furthermore, the whiffletrees can often be taken from a certain implement and combined with others on a three-horse or four-horse doubletree. With a little ingenuity it is not difficult to arrange matters so the maximum amount of work can be accomplished by the horses, and by the man who drives them, without overdoing either. Eveners must be constructed according to a mathematical principle which involves the law of leverages. For example: Where two horses are drawing against one, it is obvious that the single horse should be attached twice as far from the point of draft as the two horses; or, in other words, the evener should be so divided that

the two horses will have one-third the doubletree and the single horse two-thirds. This will appear simple to most readers, but the problem becomes more intricate as we attach more horses and hitch them, to avoid difficulties with tongues, furrows, etc.

In Figure 1 is illustrated a three-horse evener that was quite common years ago. It is usually made about 60 inches long and a two-horse evener is often taken from some other implement and attached to it. The connections between the large evener and the two-horse equipment, as well as the single whiffletree, can be made according to fancy. Robert Brown, of Middlesex County, Ontario, uses an evener similar to this for plowing, but reduced it in length to about 51 inches. A large horse is worked in the furrow, and often a team of lighter ones on the land. This makes it possible to shorten the evener and whiffletrees. In some cases it has been found practicable to give the large horse a little less than two-thirds of the leverage. This helps to make the draft of the plow more satisfactory. Mr. Brown claims to be able to make the attachment so the plow will be drawn with no side draft. With heavy horses, however, there might be some difficulty encountered with the short whiffletrees. Figure 2 illustrates another attachment for three horses, but, as can be seen, it is not practicable on a tongue or best on the plow. It is used, however, on implements drawn by three horses, where the tongue is replaced by large shafts. In recent makes of this evener the attachments for the whiffletrees are set out in front, instead of being clamped to the doubletree, as shown in the illustration. One advantage of this style lies in the disability of the whiffletrees to swing about and become caught or tangled. A three-horse evener for a tongue is shown in Figure 3. This make has been criticized as not distributing the draft evenly.

In Figure 4 are illustrated some different types of hitches for four horses. The four-horse evener is not so difficult to master, as it is simply a doubling-up of two teams.

Fig. 5 illustrates a method of arranging eveners for a riding plow, so as to keep the three horses on the land, and one in the furrow. The plan was sent to THE FARMER'S ADVOCATE by a correspondent. We have never used it, and cannot vouch for its effectiveness. A and B are doubletrees, such as are used on any implement. C is a strong doubletree, 5 feet 4 inches long. From the right end to centre of first pulley it is 7 inches; from centre of first pulley to where plow-head clevis fastens it is 15 1/4 inches; from centre of first pulley to centre of second pulley is 24 inches. At the left end of the doubletree, C, bore three holes; first one, 2 1/2 inches from the end; second hole, 2 inches from first one; and third hole, 2 inches farther on. Fasten the left-hand team into which hole is found to be best. The chain passing through the pulleys will work more satisfactorily if the links are not too large. One end of the chain is attached to B, and the other one can be wrapped around the beam of the plow at any convenient place. It is usually attached to where the couler is, and must be drawn up fairly tight so there will not be too much slack when turning to the left. It is claimed that this evener works without any side draft.

The illustrations published herewith are simply suggestions to those wishing to double-up their teams and work heavier implements. No doubt, some farmers have improvements on these eveners illustrated. We should appreciate it very much if our readers would send suggestions whereby these doubletrees and eveners could be improved, and we should be glad to pass them along through the columns of the paper. There is yet time for farmers to construct such apparatus before it is needed for spring work. Anyone with a good idea would be rendering a service to his brother farmers by giving them the advantage of the information which he has gathered.

Three-Horse Hitch for Plow.

Re inquiry for three-horse hitch for walking plow by W. O. in Feb. 17 issue, I shall try to explain a device I have used with good results.

I took a steel bar two and one-half inches by one-half inch and about fifteen inches long, drilled four holes, one at each end, and other two to match end holes in head clevis, having as much of bar to left hand side of plow as possible. I bolted it to head clevis, and from hole in left end of bar I put draw clevis, and in hole in right end of bar I put a clevis with chain attached, and extending to extra large clevis on eveners, using in all four clevises and three clevis bolts, one bolt going through two clevises on eveners.

Huron Co., Ont. J. C. B.

The man who repairs the broken telephone wires in an intense bombardment, and, by so doing, gives his own batteries the range, is, under some circumstances, almost as important as a General. He saves the day.

The Local Postmaster in U. S. A. Becomes Shipping Agent and Middleman.

EDITOR THE FARMER'S ADVOCATE:

UNCLE SAM may listen to Sir Horace Plunkett telling of the need for the farmers to get together, when he spoke at the Third National Conference on Marketing and Farm Credits at Chicago, and may have sent men over to Denmark to learn about that country's methods, or to London, Eng., to interview the officials of the Agricultural Organization Society with regard to the new co-operative societies for farmers, which have been established in the twelve years of its existence, but, after all that, he goes his own way with a little pet scheme of his own, and sets himself to make the Post Office his instrument for bringing together the consumer in the city and the producer in the country. He is utilizing not only his new parcel post system, but the postmasters as well. He does not simply fix rates of postage per pound, for the various zones, and leave it at that, but he is following it up by an active campaign carried on by the postmasters of 35 cities, under the direction of the Post Office Department, with a view to fostering parcel post marketing.

He is wonderfully paternal. He has actually listed and distributed among the patrons of the city offices, names and addresses of producers, together with the produce offered, and some of his energetic postmasters have issued for distribution to producers, lists of consumers who wish to buy. Now, here some one may ask: Well, we have a new parcel post system here in Canada; how do the two compare as to rates, for instance? Comparisons are said to be odious, but that must depend on the spirit in which they are made. It may turn out that Uncle Sam is giving the people too much for the money in the way of cheap transportation, or on the other hand, with his larger population, the system may work more profitably, but he has certainly given, in his parcel post system, something very much more than the Canadian Government has done. Of course, there may be various reasons for our Government not doing more. Suffice it to say, that whereas in Canada the limit of weight is 11 pounds, in U. S. A. any one can send a parcel up to 50 pounds, in the first and second zones, while even for the third, fourth, fifth, sixth, seventh and eighth zones, 20 pounds can be sent. And he has been very generous in the matter of rates. Before we can compare these we must know more about these zones.

Both countries have a zone system, but they are on different principles. In the Dominion, there is the 20-mile rate, and then the rate for beyond 20 miles, but yet within the Province, and then various rates according to the particular Province to which you are sending. Uncle Sam's system is rather different. He does not go according to the various States, as we do by Provinces, but he has divided the whole of his country into square units, but as parcel post rates are the same for the first and second zones, the effect is that a person can work on those rates within a radius of 150 miles from the centre of any given unit. And first of all he has local parcel post rates for local delivery. For 11 pounds, our limit, for which we pay 22 cents for local, equally with 20 miles, he only charges 10 cents, and he will deliver 50 pounds for 30 cents. But the farmer living farther off, say, over 20 miles, but within 150 miles of a city, has a great advantage. Of course, the rates are the same for farmer or city man, but we are considering the farmer. If he has anything suitable for selling direct to some individual in the city, he has the benefit of very reasonable rates, from one pound to 50 pounds. He can soon reckon up the cost when he knows the weight. He is told to add 4 to the number of pounds. The result is the postage in cents. One pound is 5 cents. Our charge, beyond 20 miles, is 10 cents. Our 11 pounds (limit) only 15 cents, according to his charge; our charge would be 50 cents. His full weight of 50 pounds would be carried for 54 cents. To this rate he has an exception for places only reached by roundabout routes. That is if the office to which your parcel is addressed, although within the second zone, is 300 miles or more distant by the shortest mail route. Even then he will let you off with a rate of 6 cents for the first pound, and 2 cents additional for each additional pound. His charge for the 11 pound parcel sent by the roundabout route would be only 26 as against our 50 cents.

Uncle Sam takes a sort of bird's-eye view. He sees the city housewife desiring the fresh produce of the country brought straight to her door, and the busy countryman, in the isolated district, perhaps too sparsely settled for co-operative enterprise, anxious to sell his products with the least trouble, and he thinks he will introduce the one to the other. Although the bulletin is issued by the Department of Agriculture and called Farmers' Bulletin 703, yet a footnote states that it is written for producers and consumers in all parts of the country who are interested in marketing by parcel post. A sub-title calls it Suggestions for Parcel Post Marketing, and it is written jointly by Lewis B. Flohr, Investigator in Marketing by Parcel Post, and C. T. More, Investigator in Grades and Standards.

It is evidently felt that the scheme is still only on trial. There is no attempt to unduly boost it, although it is said that a great deal of marketing has been and is now being done by this method. The old trouble of the high cost of living caused people to look to the parcel post as a means of relief, but education was necessary for both consumer and producer, and it was well to recognize its limitations. Obviously the parcel post cannot altogether supersede the ordinary methods of marketing, although it is remarked that this means of

transportation has been found by commercial houses to be useful and efficient.

There must be a good inducement for both consumer and producer before they will utilize the parcel post. It is largely a question of price and quality. On the side of the farmer, he must have something additional to the usual price to compensate him for the extra work, container, and postage required. The consumer also wants something to attract him. He must have either a better article at the usual price, or an article of the grade usually purchased, at a lower price. It must be a distribution of the difference between the usual farm price and the retail price.

Now, I am aware, from what I have heard in my own neighborhood only, that there is a considerable amount of business done, especially in butter, between the individual producer and individual consumer, at a distance, here in Canada. The Muskoka woman whose butter is liked by the summer tourist is asked to send some packed butter in the fall. This is sent by express "collect," the purchaser paying the express charge, and often furnishing the necessary box, bringing it up each summer, and leaving it. Whether this sort of business could develop more, depends a good deal on the express companies. If transportation by their agency is satisfactory, much of the advice contained in this bulletin as to the business relations between buyer and seller, and the economics of such individual marketing, would apply. But of course one great difference between the two agencies is that the local Post Office is near, while the express office in the town may be a long drive of 20 miles. As the bulletin puts it: "Another advantage to the producer, in parcel post marketing is that the mail box or local post office becomes his shipping station. This relieves him from any extra trip in order to make shipment, as the rural mail carrier takes the shipment from the mail box, or some member of the farmer's family deposits it at the post office when going to call for the mail. "One great axiom for this selling by parcel post is that it will not pay to market anything but standard and fancy produce, and another is that it is feasible to ship only the produce that is of high value in comparison with its weight.

The aim seems to be to encourage people to send shipments up to the postal limits, as being more economical, and to make up a basket of assorted vegetables. An illustration is given of a bamboo basket with a handle, and the cover sewed on. Weight, 26 pounds; postage, 30 cents, within the first and second zones. Corrugated pasteboard cartons are also recommended. When empty, they can be shipped, "knocked down" flat.

As to getting hold of business, the producer is told that business contact, as they call it, may be attained: (1) by personal acquaintance; (2) through the acquaintance of a third person; (3) by advertising in an appropriately selected paper; (4) by personal canvass; (5) through the post office in the city or town in which a customer is sought.

One recalls the advertisements one used to see in The Exchange and Mart in England, where people in remote parts of Ireland made a specialty of selling choice poultry in this way. Years ago I remember the British railways also made special concessions of cheap rates for farm produce by fast passenger train. One does not generally think of eggs being marketed by parcel post, but there is even a special bulletin on that by the U. S. A. Department of Agriculture, and the present bulletin deals with the marketing of poultry, fruit and vegetables. Other bulletins are to follow, one on shipping butter being in preparation.

I must confess that if our own parcel post could be extended in this way, it opens up all sorts of attractive possibilities for the man on the farm. The Fall Fair shows some good examples of dressed poultry, yet one hears of people peddling them in vain at the houses in the town where the Fall Fair was held. Probably the hotel-keeper is the only purchaser. On the other hand, in large cities like Montreal, Toronto and Winnipeg, there are thousands of well-to-do people who would heartily appreciate a weekly or bi-weekly shipment of fresh poultry, vegetables, etc. Furthermore, with the increasing shortage of labor on the farms, many farmers and their wives would gladly turn more attention to sheep, poultry, butter, eggs and vegetables—things they can manage with less outside labor.

How attractive it would be to some people to work up a clientele for Thanksgiving or Christmas turkeys, or for duck and green peas, fat geese, Muskoka lamb, the Belgian hare kept on the cleanly Morant system, cream cheese like one used to see wrapped in cheesecloth in the markets in England, and all the infinite variety of the country side. The subject is worthy of further investigation for the benefit of Canadians in town and country.

Muskoka District, Ont.

P. B. WALMSLEY.

It is laughable to hear a city man explain how easy it would be for a farmer to draw in his hay and grain alone, but pitiable when one thinks of the ignorance and misconception of country life and work.

The average Canadian remount costs \$162.53. Rather a stiff price for some of the painted ponies, and aged and time-worn faithfuls, but none too much for the good horses purchased.

One Man to 200 Acres.

Editor "The Farmer's Advocate":

In the school section in which I live, in the centre of this township, there are about 7,000 acres of land, 75 names on the school roll, and the average attendance is less than 40. The total male population over school age is 55; over 45 years of age 25; which leaves just 30 of military age who ought to be able to do a full day's work, but, for various causes, many of them are not fit, and, as there is very little waste land in this section, it leaves considerably over 200 acres for each capable man to manage. We all know that one man alone cannot properly manage a farm, no matter how small the acreage, as there are several jobs on a farm that it is impossible for one man to do alone. In this school section there are just 12 farms on which there are two men; the balance have not more than one man. A few are managed by women and children, and I fear some farms will be tenantless this year. The result is "Weeds," "Fungous Growths," and "Insect Pests" are getting ahead of us.

The small average attendance in the school means that there are a number of children kept at home to help with the work, who ought to be at school, which looks gloomy for the future prospects of the rising generation. There are just seven girls in this school section over school age, and the female population is much smaller than the male. This doesn't look like good recruiting ground for soldiers, or bachelors either. Yet, in the face of all this, six of our best young men have donned the "Khaki" during the past few weeks, and a far greater number who were born and raised in this school section have gone to the front from the different cities and towns in this Dominion. Large families have been raised on nearly every farm, during the past thirty years. The average will exceed six, and one family has raised no fewer than eighteen, but they have nearly all gone and left the farms, and will not or cannot return.

But we are not downhearted. The few of us that are left are doing, and will continue to do our part in sustaining Canada and the British Empire, both at home and over seas. One of our farmers, who had the misfortune of losing one of his legs two years ago, has given his eldest son—a youth 17 years of age—to the colors, and now, with the aid of his good wife, and one leg, is facing the job of running a 200-acre farm, and supporting fourteen children under sixteen years of age. This is no exaggeration, and is only a sample of the sacrifices that our farmers are making. It is very exasperating to be told, by young officers, at recruiting meetings, that there is a "yellow streak" in the people of the rural districts, and to listen to other over-worked slang phrases that are anything but complimentary towards the people of rural communities. In fact, one officer, who boasted that he had given up a Professorship in a University, worth several thousand dollars a year, to join the colors, went so far with his intimidating methods, and abusive language at a meeting here lately that one farmer stopped him. I think the incident had a sobering effect on some of the over-fresh young officers who have been perambulating this district during the past few months. We attended a meeting in the town of Orillia, in the adjoining county, Feb. 17. Hon. T. W. McGarry, Provincial Treasurer, was the principal speaker. He delivered an able and eloquent address; his language was moderate, and no reasonable person could find fault with anything that he said. Quite a contrast from some of the speeches that we had listened to at such meetings! J. I. Hartt, the representative of the Riding, who appeared in "Khaki," also spoke. He displayed the strategy of the politician all through his remarks; praised the manufacturers, and made it clear to them that they would not be disturbed, nor their help depleted on account of the recruiting campaign, but the tone of his language, when referring to the farmers, would indicate that he was quite willing to let the farmers take care of themselves, and show their loyalty by joining the colors.

The editorials appearing in "The Farmer's Advocate" are always interesting, and that in the issue of Feb. 3, "National Efficiency," is very able, appropriate, sane and sensible. We echo every sentiment contained therein, in no formal way, but with all our heart. How different are those that we read in many of the city dailies, whose editors seem to know little and care less about the conditions or requirements of the people who reside in the rural districts. We think that this country is supporting altogether too many newspapers, and, if more than half of them would disband, and the able-bodied men now engaged in that work would join the army, it would be a blessing. The general public would not have to pay subscriptions for so many papers, which would be a saving. But the greatest saving of all would be of time that is now wasted in reading the same news in different papers, though sometimes stated in a somewhat different way. And we sometimes allow ourselves to be influenced by papers, although we know that a great portion of what they print is fiction that will be contradicted the next day. Some newspapers serve no good purpose, and are breeders of strife and discord among people; their narrow, prejudiced, partisan views are nauseating to read. We read nearly a dozen, and every one of them is more or less partisan, with the single exception of "The Farmer's Advocate," which, so far, has made good its claim to be "Impartial and Independent of

all Cliques and Parties." We sincerely hope that it will prosper and continue in the same course.

We also think that this country is supporting too many professional men; too many merchants; too many agents; too many so-called Civil Servants, who are not civil; too many parasites of all kinds who are not producers, but live on the sweat and blood of the toiling masses. If more than half of them, would join the army the country could spare them, and would not suffer very much loss. But the farmers, the miners, the lumbermen, the artisans, whose products bring wealth and stability to the country should, as far as possible, be left as they are a valuable asset to the country; but they are the men that have gone and are going in greatest numbers, while the other fellows are content to stay at home and sing "We'll Never Let the Old Flag Fall."

Ontario Co., Ont. JOSEPH FOX.

Silo Experience.

EDITOR "THE FARMER'S ADVOCATE":

I thought I would ask you about your silo corn. You say that it is better drilled than it is hill planted. I have had better corn that way and about twice as much to the acre, but I don't sow quite 50 lbs. to the acre. I like to have some corn showing when cut in the silo, and I find around here that the more corn there is the better it packs, and I have seen a third more go in a silo where it was well cobbled than where no cobs were present. I fill from 20 to 30 silos every year, so I find different corn and different ground. I find that Leaming does the best all around. It gets ripe on the sand and clay. I don't think it hurts it any for being cut a few days before filling, for, if it gets dry, a little water will help it. I have seen half a field go in the top quarter of a silo by putting in water and an extra man. I think two or three men in a silo plenty if they don't visit too much, and I like to see a silo filled in a day. It saves expense for all. I think a 10 by 20 or 25 foot silo is a nuisance. Corn freezes too much and costs so much to put in them, and they don't hold enough for a 50-acre farm. A 12 by 30 or 35 or a 14 by 35 is better, for it makes enough, and there is no refilling to add to the cost. I would not farm without a silo. We have three of them, two cement and one wood. I like the wood about as well as any, and it only cost half as much. If you can let me know how your silage packed and kept where there was no corn, do so.

Elgin Co., Ont. JOHN ELGIE.

[Note.—Our thickly-sown corn packed well in the silo because it was fine and it kept well, feeding out first-class silage.—Editor.]

THE DAIRY.

Conference of P. E. Island Dairymen.

Prince Edward Island cheese and buttermakers, in company with a representative from every factory were called together by Harvey Mitchell, to consider the conditions under which the dairy products were manufactured, and also to discuss the standard of the output when compared to that from other districts. Previously, Mr. Mitchell had spent a great deal of time collecting information from the wholesale and retail men, the buyers and the makers. This information was presented to the Conference, and a great deal of discussion ensued. At no previous time had the buyers, the makers and the producers been given an opportunity to meet and discuss the situation under the guidance of experienced men. Never before did the dairymen of the Province realize that there had been no improvement in the cheese during the last ten or fifteen years. The causes were carefully considered, and methods of correction suggested. The system of inspection was greatly at fault. Everyone agreed that greater co-operation was necessary. Mr. Mitchell had arranged to have a high-class cheese to compare with some of the best and poorest of Island products. The climate is suitable for the manufacture of cheese and butter, which will compare favorably with that made in any other district of Canada, if the milk is properly cooled, and in several cases some improvements added to equipment in the factories. The improvements required are slight and doubtless will be made, and along with them effort on the part of the producers will make our output of high quality.

The Conference was made possible through the co-operation of the Dominion and Provincial Departments of Agriculture.

The following resolutions were passed:

1. That it would be in the best interest of the industry if every factory representative present could procure a copy of the material placed before this Conference in regard to existing conditions to take home and place before a meeting of the board of directors at an early date, and to impress upon the directors the importance of making a personal canvass of the various milk routes, with a view of having the milk cooled, and better cared for on the farms, also the importance of closer co-operation with the makers and factory inspector in order to bring about improved conditions.

2. That in view of the facts presented at this Conference and the importance of keeping our output of cheese and butter up to the standard of the goods we are obliged to compete with on the foreign mar-

kets, we believe it would be in the best interests of the industry to have an instructor and inspector to work among the factories and patrons during the whole year, and we further believe said instructor and inspector should be in a position to carry on his work without depending on the assessment made on the factories for his salary, and we would urge upon the incoming directors of the Dairy Association the importance of taking this matter up with the Departments of Agriculture, with a view of having these suggestions carried into effect, along the same line followed in the other provinces of the Dominion.

3. That in view of the facts presented at the Conference, and realizing the importance of having all our factories and equipment, etc., kept up to a satisfactory standard, we believe it would be in the best interests of the industry, that legislation be asked for along the lines followed in the other provinces, to govern the work of the factory inspector, and we would suggest that the incoming directors of the Dairy Association see that this is done at the coming session of the Provincial Legislature.

4. That it would be in the best interest of the dairy industry of Prince Edward Island if provision could be made for our makers to get a dairy school training along the same lines as the makers in Quebec, Ontario and the Western Provinces, and we believe this could be brought about to the best advantage of all concerned by the three Maritime Provinces co-operating and establishing a dairy school course for cheese and butter makers in connection with the Agricultural College at Truro, N. S.

That Boarder Cow Again.

A study of individual records, and the use of a Babcock tester, revealed to one Middlesex farmer, at least, that he had been keeping the most of his cows instead of the cows keeping him. There was no sentiment attached to these cows, so all that did not come up to a certain standard were disposed of, and the remaining few were given more attention. On this small herd of grade cows a sire from high-producing stock was used, and the offspring are proving to be considerably larger producers than their dams. Knowing what each cow is doing has created in the farmer a deeper interest in his work, and to-day he attributes his success with the cows to having started keeping individual records. Before commencing to keep records money was paid to keep boarders in the stable, and he did not know it. From outward appearances one cow looked as good as its stall mate, consumed the same kind of feed and received the same attention, but the exact difference in milk yield was not realized until the scales were used. Cow testing and individual records may be a hackneyed subject, but only by pounding away at it will some dairymen be induced to find out what their cows are actually doing. And when the truth is known, they are either jubilant over a record one of their cows has made and immediately plan to bring the whole herd to a more profitable basis, or they are disgusted with themselves to think that for years the cows were actually consuming the profits made by some other branch of the farm. The amount of milk given by the average cow in Ontario barely pays for her feed, without counting anything for labor, interest on investment or housing. It is doubtful if two per cent. of the farmers of this country know their cows by the milk yield or percentage fat. Where records have been kept, boarders have been located at the start, and the natural conclusion is, that in the majority of stables there are cows that by their inability to produce lower the average returns from the herd. If the average yield of milk per cow could be raised one thousand pounds, it would mean hundreds of thousands of dollars to the farmers of this country. If by careful breeding and selection some farmers can raise the average production of their herds, it is possible for all to do it. Why is an effort not made to discover the boarder cow in every herd?

Home-Grown Feeds — The Basis of all Rations.

Some men entertain the idea that in order to make a high record with a cow, she must be particularly well bred, fed on specially prepared feeds, and stabled in the most modern stables. Such is not necessarily the case. Many cows, that are a credit to their owners, have attained the pinnacle of fame in the dairy world by having the right blood in their veins, and then converting feeds, such as are grown on the average farm, into milk and butter fat. True, the dairyman plays an important part in securing the best from his cows by his ability to study the requirements of the individual animal, and to combine the various feeds into a balanced ration suitable for the dairy cow.

The methods of raising calves and feeding high-producing cows, as practiced by a noted Ayrshire breeder, of Norwich, may convince breeders just starting in the business that breeding, careful feeding, and proper attention, are the essentials in building up a show herd.

The herd referred to consists of from 30 to 35 animals, in the pink of condition. Individual yearly records are kept, and mature cows produce from 10,000 to 12,000 pounds of high-testing milk during a lactation period. In years past, animals from this herd have won laurels in strong competition at many of the big shows. This herd is housed in a well-lighted, frame stable. Silage forms the basis of the ration, and about forty pounds is fed each animal per

day. Corn for silage is sown quite thickly, as it is believed more feed, and better feed, can be grown per acre than if corn is sown with the aim of producing matured cobs. In filling the silo, the corn is cut very fine, and it is believed to make better silage than the coarse-cut corn. A few roots are grown on the farm, and are considered excellent feed for dairy cows. If it were not for the extra labor entailed in handling a root crop, a larger acreage would be grown. Clover hay is fed night and morning. The concentrate part of the ration is composed of oat chop and bran, in equal proportions, the amount fed each cow depending on the milk flow. The heaviest milkers are given from ten to twelve pounds per day. Two or three pounds of oil-cake or cottonseed meal, are fed per day. Preference is given to feeding oil-cake one meal, and cottonseed the next. The cows are watered in the stable, but are turned out for exercise when the weather is favorable.

The milk from this herd goes to a condensery, consequently there is no skim-milk on which to raise the calves. When possible, the cows are bred to freshen in the fall, as there is usually more time during the winter for properly attending to the calves and heavy milkers, than there is in the spring and summer months. Whole milk is fed the calves for four or five weeks, after which the quantity of milk is gradually reduced and prepared calf meals used. At two months of age, the calves are fed only four pounds of whole milk, and are entirely weaned from milk by the time they are three months old. Oat chop, oil-cake, silage, and clover hay are kept before the calves. On the above feed, young animals appear to be thrifty.

Other breeders in Norwich district, who have made big milk and butter-fat records with their herds, rely on silage, clover hay, oat chop, bran, and oil-cake or cottonseed meal, to form the ration. The first three feeds mentioned can be grown on almost any farm, and the quantity of the last three feeds necessary to balance up the ration is not large. Cows, in many noted herds are raised on a limited amount of whole milk, along with oil-cake or calf-meal and home-grown roughage.

It is believed that the average farmer with his grade stock can increase the returns from his cows by judiciously combining the feeds grown on the farm with a small quantity of purchased concentrates, rich in protein, to form a balanced ration. The cow is a manufacturing plant, and the finished product will be in keeping with the capacity of the plant and material supplied. For greatest returns, both the plant and raw material must be good.

In some districts dairymen are raising choice calves without skim-milk, and with feeding only a limited amount of whole milk. Dairymen with a supply of skim-milk have the advantage over those selling whole milk, in raising calves. A good deal of the success in feeding young or old animals depends on the feeder. Feeding stock, so as to keep it in good condition all the time, is not an easy task. Simply putting the feed in the mangers is not enough, but the animals must be watched closely to see that the feed agrees with them. There are many little attentions given to the stock by a real stockman that would never be considered important by an amateur. Yet, it is paying strict attention to details that brings success. It is necessary to know each individual animal in the herd, and endeavor to supply its wants. A variety of feeds to form as near a balanced ration as possible, regularity in feeding, and strict attentions to details, are items of importance that are considered by the successful stockman.

HORTICULTURE.

Celery on the Farm.

During the late fall and early winter, celery makes one of the most toothsome and wholesome additions to the farm-table bill of fare, and it can be successfully grown in the ordinary garden soil, doing well on a rich clay or sandy loam. One 40 or 50 foot row will give a family several month's eating. The plants in boxes, ready for setting out, can be procured from market gardeners, or with a few feet square in a small hotbed they can be home grown. Work the mucky, hotbed soil as fine as possible, and have it moist. Then, about April 15 to 25, scatter the seed, not too thickly, on the surface. Just a light sprinkle of the earth, or even a spray of water will be sufficient. The seed is very fine and if covered like most seeds, will be a long time in germinating. When the two rough leaves show, transplant the little seedlings to another space left for the purpose, 1½ to 2 inches apart each way. Stir the soil between the rows occasionally, and sprinkle lightly with a fine-nozzled watering can several times per week. Towards the end of May the trench should be prepared, shovelling it out 8 to 10 inches deep, heaping the surface soil on each side. Then with a wheel-barrow and fork fill in a few inches of well-rotted manure and muck in the bottom, treading it down. A good shower or two before the plants are to be set out, some time in June for early use, or in July for late, will give them a good start. With a knife, or small transplanting trowel, take up the plants, by this time four or five inches high without disturbing the root system, and set five or six inches apart. They will come on surprisingly. If the weather is dry, use the watering can towards evening every few days. Keep weeds out and as the plants grow work the hoe along the sides, lightly, for celery is a shallow-rooted plant. Be careful not to scatter dirt in on the stalks and leaves when wet. Later on, when the plants have about got their growth, begin

banking in the earth, from the sides, against the stalks a couple of times, in order to blanch or whiten the celery, which should be ready to take into the cellar for storage in sand about November 1, depending on the weather. Take it in dry and clean. For the farm garden there is nothing much better than the Paris Golden, or Golden Self Blanching varieties, though others sort like the White Plume will grow a larger stalk. Start in a small way the first season. Anyone with a knack for gardening will soon want to grow celery every year, and by applying the foregoing hints, remarkably good crops can be secured, barring an attack of blight, on any good garden land, well supplied with vegetable matter. Blight being contagious, if a garden is free from it, to grow the plants at home is safer than purchasing on the open market, and running the risk of getting this disease from infected plantations.

Laying Out the Farm Garden.

The size of the farm garden will depend first upon the requirements of the family, which should have a wholesome succession of vegetables during summer and autumn, and sufficient of the keeping sorts, like cabbage parsnips and carrots, to supply the table with variety through the winter. Better have a few too many than not enough. There should be abundance of tomatoes and sweet corn for canning. If you have a live local dealer, or market convenient, any surplus of really choice stuff can be usually disposed of to profit, along with butter, eggs, poultry, etc., but those whose conditions do not facilitate this sort of thing better not bother with it. On most farms there is land enough to spare for several gardens, but the conundrum is getting the necessary work accomplished. It is said that whatever ought to be done can be done, and some people apparently about as short-handed as others seem to be able to take care of very useful and attractive plantations of vegetables and flowers. They have a way of their own evidently, and no doubt, to quote the breakfast cereal food advertiser: "There's a reason." But as to the area of the garden, half an acre might well be used for a 100- or 150-acre farm.

If the wives and daughters are to share with "the men" the privilege of looking after the garden, it should be conveniently located and made as easy to work as possible. The dimensions of the garden illustrated herewith are 28 yards by 55 yards, fence measurement. It has been found fairly easy to work having a southern slope and serves the needs of a good-sized family. Some would want one smaller, others larger. Many would drop out some of the things grown in this case. Everyone will arrange the plan to suit themselves and grow what can be cared for. Cultivation will be facilitated by having fairly long rows.

The original sin with most gardens is that they are not properly fenced. Then the hens get in or the geese, or the young Holsteins, and Old Nick himself is likely hanging around the corner, waiting for just such chances to make trouble. Galvanized woven wire fencing is the proper thing, strong and high, 12 or 13 strands at least and close at the bottom. It isn't likely a second mortgage on the farm will be necessary to get the roll and the posts, and even if it were, the investment would pay. Have a gate easy to swing, wide enough to let in a team and disc harrow, or other implement. A small four-foot-wide gate is also in most cases needed. People would be astonished if they could total up the loss of time spent chasing things out of the unfenced garden and the value of stuff annually destroyed.

In picking out a new garden site, a sloping one is desirable for natural drainage. Summer freshets leave pools of water that drown out vegetables and cake the soil. Run one or two tile drains across it as well, so that the land can be worked earlier in the spring and more quickly after every shower, which is a great point in keeping down weeds, the bug-bear of most gardens. But for these pests, gardening would be a happy dream. A mellow, well-worked soil will shorten weed life, and give the potatoes, strawberries, tomatoes and other stuff a chance to mature early and keep ahead of the frosts. An hour with the cultivator and hoe at the right time will save the almost futile work of days later on. Weeds will die young—if their heads are removed.

Shelter belts to the west, northwest and east of a garden site are of course valuable in protecting from storms and equalizing temperature, but should not be so close as to throw a heavy shade over growing plants, though some of them, particularly a few varieties of flowers, thrive under a good deal of shadow.

Permanent bush fruits, like berries and currants, should occupy one side, with row space for rhubarb, asparagus, etc. Next may come room for a couple of rows of strawberries, but they require the richest of soil and an eternal vigilance that many people cannot afford in these strenuous times. After one full season's bearing, they need renewing on fresh ground; hence the desirability of alternating with the space for early potatoes. The number of rows of potatoes grown will depend on the appetites to be satisfied. The first may be started about April 20th. Onion and other seed of early and hardy vegetables may be put in about the same time. If one is crowded for room, the space where very early peas, potatoes, etc., are grown can be used for a late seeding of other vegetables like lettuce or late cabbage.

The diagram given here is merely suggestive, but it makes provision for growing a succession of several sorts of vegetables, and at least four plots of, say, 65 hills each for sweet corn, with smaller plots of beans between. Planting the first corn plot about May 12 and the others subsequently ten or twelve days apart, will give a succession for the table running well into October. Golden Bantam can be planted quite close

		East 165 ft.					Apert Rows ft.	
Hot Bed	Red Raspberries						5	
	Black Raspberries						5	
Hot Bed	Rhubarb	Asparagus	Gooseberries	Black Currants	Red Currants	5		
	Strawberries						4	
Cold Frame	Strawberries						4	
	Early Potatoes						2½	
	Early Potatoes						2½	
	Early Potatoes						2½	
	Early Lettuce	Radish	Spinach	Dutch Sets	Peas	2½		
	Yellow Globe Danvers Onions						3	
	Lettuce	Beets	Early Cabbage				3	
	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn	3
	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn	3
	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn	3
North 84 ft. Perennial Flowers Space for turning horse	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn(13 hills)	Beans(5 hills)	Sweet Corn	3½
	Lettuce	Carrots	Beets				2½	
	Late Cabbage						3	
	Tomatoes						3½	
	Beans						3	
	Peppers	Sage	S. Savory	Thyme	Parsley	Parsnips		3
	Celery						3	
	Annual Flowers	Cucumbers	Squash	Melons	Pumpkins			4
			Border	Annual and Perennial and Biennial Flowers				3

Plan of a Garden in Middlesex County.

together. The intervening small plots of beans of the White or Golden Wax varieties will keep the table furnished with this toothsome vegetable. The first half row of some good garden pea, like the American Wonder, can be planted about the middle of April, and subsequent sowings about 10 or 12 days apart. Judging from the experience of late years, it is hardly safe to put tomatoes from the cold frame into the open ground until about June 15. The distance apart of rows is given at one end of the diagram. In this case the flower growing is mostly done across one end, and down one side of the vegetable garden. In this way effective use is made of showy plants like peonies, hollyhocks, lilacs, irises, lilies, roses, pansies, Canterbury bells and foxglove, with annuals worked in between, according to the time and fancy of the grower. It has been found desirable by having a little rotation not to grow the same crops like sweet corn or tomatoes on the same ground year after year.

Tomato Growing for Farm Use.

The first point to observe in successful tomato culture is, that being a plant of semi-tropical origin, it requires a warm, rich, well-drained soil and tillage that will hasten maturity between early frosts that cut down the plants, and late ones that damage both vines and fruit. Practically every farm grows tomatoes to some extent, and near the canning factories they are one of the main money crops. For home use the plants are usually got from professional growers, or are reared in a hotbed and cold frame. Depending upon locations, the seed may be sown in the hotbed say from April 15 to 25, in more favored districts, earlier. Dates vary with locations and seasons. Drop the seed in rows about four inches apart, so as to permit of occasional stirring between. Seven or eight seeds to the inch, covered with about half an inch of mellow mould firmed down, should be sufficient. Stocky little plants are grown by scattering the seed thinly in a flat row, about an inch wide. Follow a plan that will not produce weak, spindly plants. If too thick, thin them to singles. If the bed is warm, the plants will show in a few days. Raise the lower end of the sash occasionally during midway, to gradually harden the plants, as the rough leaves show. In a couple or three weeks they may be transferred to the cold frame, and set in rows six or eight inches apart each way. Here they can be protected from excessive sun for the first few days, and at night from frosts, by a covering of heavy canvas supported by cross strips of wood, like lath. Stir the soil and water frequently. By June 15 to 20 they should be ten or twelve inches high and in bloom, and ready to lift with plenty of soil on the roots, to the open garden when all danger of frost ought to be past in most localities corresponding with Central Western Ontario. Even where plants are purchased in boxes, it is better to get them of medium growth and transfer, roots undisturbed, to the cold frame, which is so simple, inexpensive and beneficial, for a couple of weeks. Good plants are often produced in the home. They too should be transplanted once or twice and hardened off before being transferred to the garden. Have the garden soil in good tilth, by frequently stirring before finally planting out, and make a generous hole with a spade to receive the plant set well down. This operation usually packs down the ground so that it should be cultivated, or loosened, with the hoe the next day, if possible, and every few days thereafter, for two or three weeks.

Being of bushy, abundant growth, tomato roots gather their food and moisture from near at hand,

consequently the immediate soil must be mellow, under-drained, and properly enriched; the latter preferably being the season before. For very early home use, a dozen plants may be put out ten days, or a fortnight, earlier, and protected from frosts, but, unless the weather is warm they will come on about as fast in the cold frame. For the first three weeks cultivate, cultivate, cultivate. Give them plenty of room, say 3½ or 4 feet apart. From 50 to 75 good plants will give an average family plenty for the year's use. It is well to grow two or three varieties, one very early, and others medium and later. Their name is now legion, and you may strike poor strains in very popular varieties. Some sorts do better in a given locality than others. Some prefer a pink tomato; others a red one. For canning and ketchup, a bright red is in demand. A good selection can be made from the following: Earliana (scarlet), Bonny Best (scarlet), Byron Pink, Chalk's Early Jewell (red), Ponderosa (pink), Stone (red), Plentiful (pink), and Early Detroit (purplish pink). Though later in ripening than some of the others, the Early Detroit is a splendid tomato, thick-fleshed and prolific. Its heavy vine growth makes it very desirable for late season, as the foliage will protect the fruit from injury by frost.

The Quantity of Seed Required.

When the time comes to buy garden seed it is often difficult to decide upon the amounts. If the length of the garden rows are known the quantity of seed required of all varieties can be easily ascertained from the following recommendations which are as they appear in the Ontario Bulletin No. 231:

- Asparagus.—1 oz. to 100 ft. of drill; 2 lbs. will provide roots for 1 acre.
- Beans.—1 pint to 100 ft. of drill; 1½ bus. per acre.
- Beet.—1 oz. to 50 ft. of row; 4 lbs. per acre.
- Brussels sprouts.—¼ oz. to 100 ft.
- Cabbage.—1 oz. to 300 ft. of drill; 10 oz. produces 2,000 to 2,500 plants.
- Carrot.—½ oz. to 100 ft. drill; 2½ lbs. per acre.
- Cauliflower.—1 oz. 2,500 plants.
- Celery.—½ oz. per 100 ft. drill; 2½ lbs. to acre.
- Corn.—¼ to ½ pint to 100 hills; 1 peck per acre.
- Cucumbers.—1 to 2 ozs. to 100 hills; 1 to 2 lbs. per acre.
- Egg plant.—1 oz. produces 2,000 plants.
- Endive.—¼ oz. to 100 ft. of drill; 4½ lbs. per acre.
- Kale.—1 oz. to 300 ft. of drill.
- Kohl-rabi.—1 oz. to 300 ft. of drill; 4 lbs. per acre.
- Leek.—1 oz. to 100 ft. of drill; 4 lbs. per acre.
- Lettuce.—¼ oz. to 100 ft. of drill; 3 lbs. per acre.
- Melons (musk).—2 ozs. per 100 hills, 4x4 ft.; 2 lbs. per acre.
- Onion.—½ oz. to 100 ft. drill; 4 to 5 lbs. per acre.
- Onion sets.—1 quart to 50 ft. drill; 8 bus. per acre.
- Parsley.—½ oz. to 100 ft. drill; 3 lbs. per acre.
- Peas.—1 to 2 pints to 100 ft. drill; 1½ to 2½ bus. per acre.
- Peppers.—1 oz. produces 1,500 plants.
- Radish.—1 oz. to 100 ft. row; 10 to 12 lbs. per acre.
- Rhubarb.—1 oz. seed to 125 ft. of drill; 3½ lbs. per acre.
- Salsify.—1 oz. seed to 100 ft. drill; 8 lbs. per acre.
- Spinach.—1 oz. to 100 ft. drill; 5 to 6 lbs. per acre in drills; 30 lbs. per acre broadcast.
- Squash.—8 ozs. to 100 hills.
- Tomato.—1 oz produces 2,000 to 2,500 plants.
- Turnip.—1 oz. to 200 ft. of drill; 1 to 2 lbs. per acre.

Varieties of Vegetables for the Farm Garden.

The proper selection of seed, and varieties is an important factor contributing to successful gardening. There is a great difference in the kinds and varieties, of the vegetable crops we grow, and it is no more trouble producing good ones than poor ones.

One part of the garden should be allotted to plants that are more or less permanent in nature. Staples in this line are asparagus, rhubarb and strawberries. The varieties of asparagus found most suitable are Palmetto, Argenteuil, and Conover's Colossal.

Next we come to those vegetables which are usually transplanted in order to bring them along in good time, and mature them properly. Celery is a crop, which is not used as extensively as it should be.

Tomatoes are also discussed in a separate article. The varieties recommended are Earlianna, which is a good early kind, but is not usually so smooth as the Chalk's Jewel, which is slightly later.

Melons are used more as a luxury than as a staple, but they make a very nice dessert. Rocky Ford, Emerald Gem Hackensack, and Montreal Market, are good kinds of musk melons, while Hungarian Honey, and Cole's Early, of the water melon type are the most likely to ripen.

Cabbage and cauliflower plants should first be started in a bed by themselves, and later transplanted to hills in the garden. Jersey Wakefield is a good early variety of cabbage. Early Winnigstadt is another.

Cauliflowers of good quality can be produced from Early Erfurt and Early Snowball.

Coming to the kinds which are sowed early in the spring, in the garden, we should probably mention lettuce and radishes first. In order to get early lettuce, the hot-bed, such as was described in a recent issue of this paper, should be used, but, lacking such an equipment, lettuce should be sown as soon as the garden is prepared.

Radishes should be planted also at intervals of a week or two. Rosy Gem, Scarlet Turnip, White Tip, and French Breakfast are good varieties. It would be well to try two or three different kinds.

Peas should also be sown quite early, for they will stand considerable cold weather without suffering much injury. For the first try Extra Early, Alaska, Nott's Excelsior, American Wonder, or Gradus; and for late use Advancer or Stratagem.

Beans are closely associated with peas later in the season. Together they make an excellent dish. The varieties of beans which are likely to give best results are: Keeney's Rustless Golden Wax, Detroit White Wax, Stringless Green Pod, Valentine, and Wardwell's Kidney Wax.

Cucumbers should not be forgotten, and they can be planted fairly early. They are useful for both slicing and pickling. For the former use Davis Perfect, and Cumberland; for pickling, Westerfield, and Chicago Pickling have been recommended.

Citrons are used largely for preserves. They will produce more abundantly if started in the hot-bed, but they are commonly sown in the garden. The Colorado Preserving variety and Red Seed are good.

Coming to the roots, we shall first mention beets. Early in the season they make excellent greens. They should be planted for early summer use, and about the first of June for winter storing. Egyptian Turnip is an extra early kind. For moderately early, try Early Model, Eclipse, and Black Red Ball. For late summer and winter use, Detroit Red, and Long Smooth Blood give good satisfaction.

Carrots cannot be dispensed with; they are an important staple vegetable. Every gardener should try Chantenay. Danvers and Rubicond follow very closely. One sowing should be made early, and another about the first of June for autumn and winter use.

Parsnips can often be sown where radishes and lettuce have occupied the land early in the season. However, one should not depend entirely on these drills for the bulk of the crop. Two good varieties are Hollow Crown, and Guernsey.

Turnips are frequently grown in the field for stock, and if Swedes are used, the winter supply can be gotten there. If grown in the garden, for the first, try Extra Early, Purple Top Milan, Golden Ball. As a late variety and the main cropper there is none better than Swedes.

Pumpkins.—There are many households that cannot get along without pumpkin pie. If properly dried, pumpkins can be preserved and carried over into the winter, and made into this delicacy at that time, as well as in the fall. Sugar and Jumbo are two good varieties.



Melon Plant in a Sod Basket.

Squash deserve quite as important a position in the garden as do pumpkins, for they can be used largely on the table as a vegetable. For an early squash, use Crookneck, or White Best Scallop. Hubbard is a good late variety.

Corn.—No garden is complete without a good variety of garden corn. Broadly speaking, there is no better variety than Golden Bantam. Plantings of this should be made at intervals of a week or two, so the season will extend over as long a period as possible. Country Gentleman, and Stowell's Evergreen are also good, but they are later.

Onions, in spite of their peculiarities, should be abundantly grown. They are healthful, and very necessary in culinary work. The Yellow Globe Danvers, Prizetaker, Red Westerfield, Southport Yellow Globe, and Southport Red Globe, are the varieties grown, with preference given to the first.

Spinach.—Victoria, Virofly, and Bloomfield. Egg Plant.—Black Beauty, and New York Improved.

Kohl-rabi.—Early White, or Purple Vienna. Vegetable Marrow—Long White Bush, and English Vegetable Marrow.

Indispensable.

Your paper has become indispensable to our home. Wishing you every success. Lambton Co., Ont. W. P. FORSHEE.



A Farm Garden.

This illustration represents the garden in bearing, from which the chart on preceding page was drawn.

Starting Melon Plants in Sod Baskets.

Starting melon plants in small pieces of sod is becoming common where vegetable growing is a specialty. The aim in producing good plants is to develop a vigorous root system and to be able to remove the plants without checking them to the open field. In order to do this successfully it has been necessary to produce the plants in strawberry boxes or in flower pots. This necessarily entails some expense both in the initial cost of the containers and in handling them after the plants have been removed.

The sods are cut four or five inches thick, and then cut into squares, with sides of the same dimensions. The sod is then inverted—that is, with grass side down—and with a butcher knife or other instrument a hole is punched through the center to provide drainage. After this more soil is carved from the sod into the hole, where the seeds are placed. In hot-beds seen last season the sods were placed on top of a foot of hot manure. The heat caused by the fermentation of the manure assisted germination, and at the same time insured the decomposition of the sod. These particular plants were up three or four days after the seeds were planted.

It is usually necessary to plant the seeds five weeks before one desires to set in the field, but the plants illustrated with the accompanying piece of sod, in which the seed germinated and the plants have been produced, are slightly over three weeks of age. These are now ready to transplant to the field where the sod and plants without any disturbance may be placed in the ground and left for the summer. The roots of the young melon plants are all contained in the small piece of sod, but when transplanted to the field, they will extend themselves in search of moisture. The sod will continue to rot and provide nutriment for the plants, and the whole thing will be done without the expense of pots, boxes or containers. This system of producing melon plants is meeting with favorable recognition, and is worthy of a trial. The principle will apply to cucumbers, tomatoes, and other plants which are often transplanted. However, the danger in losing plants of those mentioned last is not so great.

POULTRY.

Hatching and Feeding Chicks.

EDITOR "THE FARMER'S ADVOCATE":

Gather the eggs several times during the day in cold weather; chilled eggs do not hatch so well. Keep them in a moderately warm but well-ventilated room, and turn them once a day. Only nice, uniform and smooth eggs should be selected for hatching. It is also necessary for the breeding stock to be healthy, well cared for, and have plenty of exercise.

There should be no special difficulty in hatching chicks with incubators if the machines are wisely chosen and the directions are closely followed. The mechanical features of artificial incubation have been fairly well worked out by the manufacturers. It is true that not all machines will give equally good service in a given location; but if standard makes are selected, suitably located and properly cared for, good hatches should be secured. While it is not known to what extent chick troubles are due to infection by disease germs acquired in the incubator, disinfection seems to be important. The interior of the machine should be washed thoroughly with a 10 per cent. solution of zenoleum, after each hatch, trays cleaned and scrubbed if necessary, and burlap either renewed or saturated with the disinfectant. Disinfection can do no harm, and may result in saving many chicks. In addition to disinfecting the machine, many operators disinfect the eggs also, dipping them in alcohol. The general trouble of chicks dying in the shell may be due to a naturally weak embryo, due to improper feeding or lack of health or vigor in the breeding stock; careless handling of eggs; too little moisture at hatching time drying the membrane so the chicks stick fast and

cannot get free; too much moisture, drowning the chick or producing an abnormally large and weak chick that cannot extricate itself. Many chicks that die after pipping might be saved by covering them for a short time with a cloth wrung from warm water. In all cases where trouble of any kind occurs it is well to set a few hens with the incubator to determine whether the trouble is with the eggs or the machine. Frequently the incubator is blamed for poor hatches when the vitality of the breeding stock is so low, or the eggs have been so carelessly handled that good hatches would be impossible, even under the best natural conditions. If the trouble is found to be only with the incubator-hatched chicks, it is often easy to locate the cause if hatching records have been accurately kept.

To begin with, young chicks should have no food until they are twenty-four hours old. The second day give hard-boiled eggs broken up finely, shells and all, with some stale bread crumbled and moistened with scalded milk. Feed every two or three hours. After the third day add some rolled oats to the hard-boiled eggs, also lean meat chopped finely with boiled vegetables, granulated corn and millet. Supply plenty of grit and clean, fresh water for the chicks. Give buttermilk or sour milk as often as it is convenient. During the growth of the feathers plenty of lean meat, bran and curd of milk are essential; chicks should not be allowed to become chilled, they must have exercise and be kept clean.

Elgin Co., Ont.

E. L.

FARM BULLETIN.

Farm Colonies for British Soldiers and Sailors.

EDITOR "THE FARMER'S ADVOCATE":

A big effort is being made by the British Government to find work and occupation land for soldiers and sailors broken in the war. A Departmental Committee that has been enquiring deeply into the subject has just issued its report, and the findings will be of interest to Canadian readers, I feel sure. Primary features of the recommendations are the following:

"That immediate steps should be taken by the Board of Agriculture to acquire and equip land for three pioneer colonies, comprising 5,000 acres in all, and that additional land should be acquired for the establishment of further colonies as required."

"That in the first instance a sum of £2,000,000 should be placed at the disposal of the Board for the purposes of land settlement, and that such further sums as may be needed should be provided."

"That the methods of acquisition of land for the purposes of the scheme preferably should be based on voluntary agreement, but that as a means of meeting special difficulties which may arise, compulsory powers of purchase should be given."

In setting forth the details of this scheme the Committee summarize what they propose under four heads, the first of which is entitled "Settlement by the State," and contains, in addition to the proposals outlined above, the following:

"That land owners should be invited to offer to the Board any large farms which come in hand before they are relet."

"That no men should be allowed to take up holdings of their own unless they have the necessary experience; that men without such experience should be offered employment at wages in the first instance."

"That any small holdings established should be on a basis of tenancy rather than ownership."

"That the colonies should be laid out so that more land can be added to each holding in due course."

"That the War Office should hand over to the board free of cost, any of the military hutments which are not required for military purposes after the war."

"That expert guidance should be provided for the settlers in each colony by the appointment of a resident director and an agricultural or horticultural instructor."

"That steps should be taken to encourage co-operation in all directions."

"That a depot should be established in each colony for the collection and disposal of produce, and a store for the sale of requirements."

"That part of each colony should be retained as a central farm, from which horses, implements, etc., can be let out on hire to the settlers."

"That a co-operative credit society should be established in connection with each colony, and that the State should take up share capital in such societies to the extent of 5s. for each acre."

"That all possible social amenities should be provided in the colonies, and that women's institutes or clubs should be established for the settlers' wives."

"That the rents of the small holdings should be sufficient to recoup the capital outlay and the cost of management, except the salaries of the resident staff and the cost of preliminary training, but that no sinking fund for the repayment of the purchase price of the land should be charged."

SETTLEMENT BY COUNTY COUNCILS.

The second branch of the recommendations concerns county councils, and is, in brief:

"That the county councils should undertake the provision of small holdings for ex-service men who are not prepared to go to the State Colonies."

"That as far as possible councils should establish colonies of small holdings similar to the State Colonies."

"That the Public Works Loan Commissioners should be authorized to resume the issue of loans to councils for the purchase and adaptation of lands for small holdings."

"That the Small Holdings' Act should be amended so that the Board of Agriculture may become partners with the county councils in the whole business of providing small holdings under the Act, and may pay half of any losses that may be incurred."

"That certain other amendments should be made in the Act."

The case of disabled men comes under the third of the main heads mentioned above, and here the Committee propose:

"That adequate funds should be provided by the State for the training of any disabled men who desire to settle on the land."

"That such training should be given by the Board of Agriculture, acting on behalf of the Statutory Committee under the Naval and Military War Pensions' Act."

"That after training disabled men should be treated on the same footing as able-bodied men, except that in selecting the tenants of small holdings they might be given the preference, if other things are equal."

The fourth head recommends that there should be a propagandist campaign in favor of land settlement at home undertaken by the Board, with the assistance and co-operation of the Admiralty and War Office, prior to the demobilization of the Navy and Army.

ALBION.

Rettie Bros'. Holstein Sale.

On February 29 breeders of Holstein cattle were able to secure at their own prices, the choice herd of black-and-whites, which were the result of years of careful breeding and feeding for milk and butter-fat production by Rettie Bros., of Burgessville. In the herd were winners at many of the large shows, and animals which stood high in seven and thirty-day tests. The cattle were well fitted, and showed to splendid advantage. Many buyers from a distance secured choice animals, to head their herd, or lay the foundation for increased production, and Oxford county is the loser by Rettie Bros'. dispensing with their herd. The sale was held in a large, comfortably-seated tent, and bidding was keen at all times. Fifty-two animals, including a number of calves only a few months old, brought a total of \$9,135, or an average of about \$177 for the females, and \$153 for the three males. The highest-priced animal was Korndyke Abbekerk Pauline, an eight-year-old cow with a record of over 24 lbs. of butter in 7 days; the price was \$400, and her three-months-old calf brought \$195. Moore and Dean conducted the sale in a very satisfactory manner. The following is a list of the animals selling for \$100 and over, with their purchasers:

Ianthe Jewel Posch, L. Slaght, Waterford.....	\$175
Ianthe Jewel Francy, A. Cowan, Norwich.....	300
Ianthe Jewel Posch 2nd, John A. Bryden, Galt.....	245
Ianthe Jewel Posch 3rd, Ed. Rodwell, Burgessville.....	175
Ianthe Jewel Francy 2nd, Walter Lossing, Norwich.....	185
Bonheur Posch, W. H. Chambers, Salford.....	300
Mercena Schuiling Princess, J. H. Holbrook, Hamilton.....	175
Bessie Posch Schuiling, Geo. Hill, Burgessville.....	130
Ianthe Jewel Francy 3rd, W. H. Chambers.....	150
Ianthe Jewel Colantha, W. H. Chambers.....	110
Bo-Peep X's Fairy Queen, E. Wood, Norwich.....	205
Fairy Queen Mercena, M. D. Morgan, Fairbank.....	200
Fairy Korndyke Queen, W. McClellan, Harley.....	110
Ianthe Jewel Korndyke, Robt. McLeod, Embro.....	100
Mercena Schuiling 3rd, J. J. Fox, Guelph.....	175
Mercena Schuiling 5th, Geo. Mahon, Woodstock.....	290
Mercena Schuiling 6th, A. E. Hulet, Norwich.....	300
Princess Francy Posch, J. Wilson, Norwich.....	240
Olive Francy Schuiling, E. Comley, Hamilton.....	170
Mercena Schuiling 7th, Wm. McClellan.....	110
Rosa Schuiling Mercena, Wm. Pick, Norwich.....	180
Olive Bonheur Mercena, Wm. Simmons, Harley.....	200
Olive Schuiling Posch 3rd, J. E. Griffith, Weston.....	305
Pontiac Atlas Francy, J. J. Fox.....	370
Pontiac Maid Francy, W. H. Chambers.....	280
Artalissa 3rd Francy, H. A. Burrill, Norwich.....	170
Artalissa 3rd, E. Cole, Harley.....	165
Francy Maid, Wm. McClellan.....	180
Francy Maid 2nd, A. E. Hulet.....	100
Olive Abbekerk Pauline, Geo. Kilgour, Springfield.....	165
Royalton Artalissa, D. G. McClellan, Atwood.....	110
Grace Zozo, Wallace McClellan, Harley.....	170
Olive Inka Zozo, John Caldwell, Scotland.....	100
Pontiac Atlas Francy 2nd, A. E. Hulet.....	195
Bessie Posch Francy 2nd, John Wilson, Norwich.....	130
Pontiac Atlas Maid 2nd, Wm. Pick.....	160
Royalton Abbekerk Mercena, R. Denney, Norwich.....	135
Abbekerk Changeling Pauline, J. Leuszler, Bright.....	145
Shadelawn Mercena Queen, M. D. Reid, Burgessville.....	125
Lulu Echo of Forstercrest, D. G. McClellan.....	110
Mercena Hengerveld, Geo. Hill.....	145
Princess Mercena Schuiling 2nd, W. H. Chambers.....	110
Princess Mercena Schuiling, A. E. Hamner, Norwich.....	220
Korndyke Abbekerk Pauline, L. M. Kennedy, Unionville.....	400
Korndyke Abbekerk Pauline 2nd, W. S. Shearer, Listowel.....	195
Korndyke Paul, W. Mills, Sparta.....	265

A Good Sale at Guelph.

It was a large and representative gathering of breeders that attended the twelfth annual sale at Guelph, held under the auspices of the Guelph Fat Stock Club and the Provincial Department of Agriculture, on Wednesday, March 1. In all, there were 32 bulls sold, of a quality never surpassed at any of the previous sales held by the Club. The highest price was \$305 for the roan four-year-old Royal Butterfly, contributed by W. E. Edwards & Co., and sold to John Brydon, Milverton. Three sold for \$300 and over, and eight for \$200 and over. The 32 head made a total of \$5,232.50. Following is a list of all selling for \$100 and over, and their purchasers:

Flower Knight, Hood Bros., Beckenham, Sask.....	\$235 00
King's Royal, A. Barber, Guelph.....	300 00
Pride of Orange, John McAninch, Guelph.....	265 00
Augustus, N. S. Robertson, Arnprior.....	170 00
Goldie's Star, V. Bowes, Meaford.....	300 00
New Year, Wm. Sutton, Erin.....	235 00
Missie's King, R. Nodwell, Waldemar.....	125 00
White Marconi, Quarry Bros., West Montrose.....	130 00
Royal Chancellor, V. Bowes.....	147 50
General French, C. E. McMillan, Erin.....	135 00
Lord Kitchener, C. Campbell, Guelph.....	107 50
Baron Cecil, James Sharp, Lacombe, Alta.....	210 00
Grace Victor, Jas. H. Morrison, Walton.....	160 00
Merry Monarch, T. Mahon, Aberfoyle.....	112 50
Jack Canuck, R. Wilkin, Palmerston.....	210 00
Starlight Chief, H. Webb, Wellesley.....	125 00
Monarch Chief, M. Vrooman, Fergus.....	162 50
Victor Ramsden, Robert Miller, Stouffville.....	105 00
Commander, V. Bowes.....	140 00
Red Augustine, Alex. King, Belgrave.....	140 00
Springbank Hero, Peter Smith, Embro.....	115 00
Springtide, H. J. Mansz, Shakespeare.....	140 00
Eramosa Ringleader, A. J. Burgua, Sombra.....	190 00
Gilt Edge, G. S. Harding, Guelph.....	190 00
Rustic Seal, V. Bowes.....	142 50
Soldier Boy, John Weiner, Guelph.....	135 00
View Point Lad, J. H. Golden, Amherstburg.....	100 00
Woodfield Pride, D. T. Rose, Embro.....	127 50
Royal Butterfly, John Brydon, Milverton.....	305 00
Lestor, James McQueen, Rockwood.....	100 00

A Farmer's Wife on Recruiting.

EDITOR "THE FARMER'S ADVOCATE":

I have read Peter McArthur's, A. Hutchinson's also Mrs. Remington's letters in "The Farmer's Advocate" re recruiting in rural districts. I cannot see things as Mrs. Remington sees them. The land must be tilled or what is to become of our armies? I am not willing to sell our dearly beloved Canada to the enemy, but there are two ways of looking at it. There are quite a number of young men left yet in the towns and villages who are depending on the day's pay. It seems to me they should pluck up the courage to go and leave the tillers of soil. I will admit there are some farms where there are two or more men to work them. If those men were as loyal as some of their brothers, as many as could be spared would go. Where there is only one man on a farm, I for one cannot understand what the country would do without those men. There are not many women like Mrs. Remington, who are able to work the second team—in short, take a man's place. Perhaps there are a few who could, but there are more who could not. I for one would be off my feet in less than one week, and I am not a delicate woman either, but I am like a great many more of my sex, not built to do a man's work. It isn't every woman's good fortune to have her father living on the adjoining farm, and if he were, nine cases in ten he would be too old to take the heavy end. The farms in Ontario are usually divided into larger farms than 50 acres. The only thing I can see for a farmer to do if he wants to enlist is to either sell or rent his place until he returns. If my husband wanted to enlist I wouldn't stand in his way for one moment, but he would have to do something with his land. I don't attend Red Cross meetings twice a month, but I attend all we hold. We do our knitting and sewing at home. I am working at Red Cross work every spare moment I have, and I feel I have only done a very little in that noble work.

Huron Co., Ont.

A. M.

"War," declares Theodore Roosevelt, ex-President of the United States, "like peace, is properly a means to an end—righteousness. Neither war nor peace is in itself righteous, and neither should be treated as of itself the end to be aimed at. Righteousness is the end. Righteousness, when triumphant, brings peace, but peace may not bring righteousness. Whether war is right or wrong depends purely upon the purpose for which and the spirit in which it is waged."

A Reader.

Although I get sixteen papers a week I would not care to do without "The Farmer's Advocate."

Huron Co., Ont.

T. S. HAMILTON.

Must Have It.

We cannot do without "The Farmer's Advocate." It is the best farm paper published.

Wentworth Co., Ont.

GEO. KENDRICK.

A Wide Diversity of Subjects Discussed at Rural Workers' Conference.

In spite of the fact that the number of students on roll at the Ontario Agricultural College is diminished by about one-third compared with other years, and many more are joining the colors, the Second Annual Conference on Rural Life and Work was held on February 25 and 26 at the College. The Conference was well attended, and throughout the sessions a deep interest was taken in its workings by all present. The speaking and discussions were carried on, for the most part, by the students themselves with the assistance of able and competent speakers from outside sources, among whom were: Dr. H. W. Hill, Medical Health Officer, London; Miss Maud Hotson Parkhill; Miss Mary Mackenzie, Superintendent Victoria Order of Nurses, Ottawa; and J. W. Brown, Guelph.

At the opening session, Professor Caesar presided, and in the course of his remarks, reviewed the work of the movement, and spoke of the increased attention being paid to the health of children, to sanitation, and to improvements of life in rural communities. After introducing the question of "Play and Recreation; Their Value to Country Life," he called upon J. E. McLarty, J. T. Johnston, I. B. Martin, P. D. Vahey, and A. H. White, and Misses J. Grant and A. M. Bott to continue the discussion of the question. Many important facts were unearthed, showing that life in rural communities is more desirable to-day than it was a few years ago, but there is yet room for improvement, and it is that improvement for which we are working. Among the rural inhabitants there seems to be a lack of business ability, a spirit of independence, and a certain aloofness, lack of sympathy for modern ideas, which is the cause of a great deal of trouble with the social life of rural communities. The people meet together at church on Sundays, and in business transactions, but, apart from that, there is a lack of intermingling, a lack of that social element which goes far toward making rural life what it ought to be. Man cannot live by work alone, no more than he can live by bread alone. The rural dwellers must have recreation; they must have some source of enjoyment to make them forget that the robins have destroyed their cherries, or that the cattle have destroyed their corn on the back fifty. The lack of social life in the rural districts was blamed for driving young people off the farm.

What is to be the solution of this problem? The church is not filling its role in the rural community. Men must be developed physically, morally, and mentally, as well as spiritually. In the majority of cases, the church only looks after the spiritual side, thereby filling only one-quarter the work it is destined to do. The rural church should not only be a place for common communion, and Sunday worship, but it ought to be the centre of social life. In developing the physical side of the residents, the church has a part to play. The leaders should see to it that athletics get their proper place in the community. There is also a possibility that athletics might become a strong barrier to narcotics.

At present the school fairs are playing a magnificent part in the binding together of the people, in promoting good-will toward men, and in establishing that social spirit which should reign uppermost in our rural communities, not only in Ontario but throughout the length and breadth of this broad Dominion. Farmer's Institute meetings have played their part, but, in so doing, they have, in many cases, left out a very important feature. They have, doubtless, been a source of much information for farmers, by means of addresses from outside speakers, but they could go a great deal farther in attaining their ends by making use of, and developing, their local talent by means of debates, concerts, and such entertainments. Such a course would not only make the meetings educational, but would arouse the interest and the support of each and everyone in the community. Without the shadow of a doubt, many of the Institute meetings are carried on in such a way, but there is still an enormous field for such meetings in the attainment of necessities to make rural social life what it should be.

PLAY IN SCHOOLS.

On the question of "The Value of Play and Recreation to Schools," much was said, and a great deal of light thrown upon the subject. By putting play in our rural schools upon a systematic basis, it is possible to promote more regularity of attendance. As an example, take a school where, each Monday morning, teams were chosen for base-ball, which were to battle against each other through the coming week, and, at the end of the week, the score was totalled and the majority won. This course of procedure, or a similar course, gives the children an interest in the school, and enlivens them to a keener insight and more clear conception of their study. With small children it is possible to teach them to read and count more rapidly by actually letting them keep count of the score for a ball team, or in some way bringing them to a practical application of the rules. Rural pupils ought to be good athletes, as they have every facility at their disposal. Recently sports have been tried out in many schools, and have been found to be beneficial in the truest sense of the word. Athletics have proved to be not only a means of physical development, but they promote honesty, truthfulness, and fair play, and to be conducive to co-

operation in team play and in the social life of the section.

MEDICAL INSPECTION.

In speaking on Medical Inspection for School Children, Miss Hotson pointed out that, although exercise decreased the necessity of inspection to a certain extent, there were still numberless students in our schools, urban as well as rural, who were striving to study, against the effects of bad eyes, headaches, and numerous other inconveniences. In an inspection survey of five schools, a city school, a town school, a rural school, a high school, and a separate school, it was found that on the average fifty per cent. of the pupils were defective in one way or another. In other inspections it was found that in some schools as high as 85 per cent. of the students were defective. Needless to say, such a course ought never to exist. The idea of medical inspection is to let the parents take the affected children to their family doctors, and, in case some are not looked after, then the school authorities see to it that the children are treated. Where operations are to be performed, as in case of affected tonsils, or adenoids, the operations are paid for as far as possible by the parents, and the balance made up by Women's Institutes and such societies, private enterprize, and from such sums as may be collected otherwise. In such an important work, we can go one step farther and advise the formation of a Provincial system with the most competent doctors and nurses possible.

DISTRICT NURSING.

At the evening session Miss Mackenzie discussed the subject of "Rural District Nursing." She spoke of the need for such a work, especially in our Western Provinces, which in many districts are settled so sparsely. She referred chiefly to the Royal Canadian Victorian Order of Nurses, which was granted a charter by the Government at Ottawa. At first the services of this organization were directed chiefly to cities and towns, and to organization. Then came the time when the district nurse was appointed, whose duty it was to go from house to house caring for patients, investigating the house as to sanitation and cleanliness. This work became so important that the nurse became a sanitary inspector, teacher, and, in many cases, the doctor, in rural communities. Then the work began to spread to schools, departmental stores, and such establishments, where disease is liable to become dangerous. In this work the nurse aimed not so much at the curing, but at the prevention of disease, and with the revival of the social ideas she became "Our brother's keeper." During her remarks, Miss Mackenzie explained the establishment of hospitals in our lumber camps in 1900, and of the wonderful work being carried on by such establishments. In 1909 the organization adopted the rural nursing scheme, which purposed to supply each district of twenty miles square with a nurse, whose headquarters was to be in the centre. The nurse was to supply the wants of anyone sick in the district. She could not only visit the sick, but could combine continuous nursing with it also, when the health of the district would permit. Small nursing homes were established to care for accident cases. The scheme took in the school inspection also, and the nurse was not only the inspector, but gave talks on sanitation, care of the eyes and teeth, and other hygienic subjects. That the finances should be forthcoming, a small fee was charged for nursing, and that, together with grants from councils and societies, put the society on a firm basis. It is also understood that the poor and unfortunate, if unable to pay, shall receive treatment free of charge. The society has also a Duchess of Connaught fund of \$223,000, set aside for the purpose of extending the work further into rural districts. But such a scheme has never been without its difficulties. It found itself face to face with the problem of reaching the people, in which case the society was greatly assisted by the Institutes and Grain Growers' Association of the West. It also witnessed a difficulty in getting proper nurses. The graduates from hospitals are lacking in many essentials necessary for a successful district nurse. The district nurse requires initiative, must understand the foreign element of the population, and must be able to inspire the confidence of the people, and have an insight into the future and believe in its development. In order that the nurses may acquire these faculties, a special course is put on by the organization. After graduating from the hospitals, the nurses spend a short period in taking this course, and are thereby fitted with the necessary knowledge for a district nurse. Such an organization is not only worthy of support, but demands the respect and earnest efforts of Canadians at large.

RURAL HEALTH.

Dr. Hill, in his discourse on "Rural Health and Sanitation," stated that the modern fight against disease was a business idea, as against the old idea of charity. The chief sources of infection he named as water, food, flies, milk, and people. Through water, he said, were carried the germs, small microscopic plants, of typhoid and dysentery. Except in limestone regions, private wells are never infected with bacterial disease. He stated that in his twenty years' experience as a health officer, he had never known a case of typhoid to be caused by bacteria from private wells. In speaking of food, as a germ carrier, he said that there was little danger from that source, if the food was cooked because the cooking destroyed the germs. In so far as food is concerned, it is the raw food that makes the rich bed for

bacteria to multiply. In speaking of flies, he said that typhoid and dysentery were carried in that way. "Swat the fly" campaigns have been agitated for the last two or three years, but they are useless in this day and generation. The only way to prevent flies from spreading disease is to cover up the sources where they may secure the germs. If all garbage and toilets are kept covered, there will be no disease spread by flies. Milk carries all kinds of disease. The cleaner the milk, the more rapid will the germs multiply when once they enter the liquid. The old milk seems to produce an acid reaction on the germs, thereby killing them and rendering them void of danger. If milk is to be rid of infectious diseases, it must be pasteurized and that by raising the milk to a temperature of about 140 degrees F. In speaking of people, he would have us realize that the hands and the mouth-spray are by far the most common carriers of disease. Such propagation is also the hardest to control, as no man can say to his fellow, "do this, and it shall be done." The only way of coping with this case is by rigid quarantine as soon as the disease is detected.

LIGHT AND VENTILATION.

The question of "Light, Heat, Water, Ventilation and Sewerage Systems for Farm Homes," was discussed by Messrs. Stewart, McConkey, Neale, and Miss Nixon, and during the course of discussion it was plainly shown that rural life could be greatly benefited, if these features were attended to. These, at first sight, seem trifling, but, when we think of the numerous, poorly lighted, and badly ventilated homes, with the pump a hundred yards down the hill, these items become of vast importance, if life in our rural districts is to reach the proper standard.

The session on Saturday took the form chiefly of demonstrating games suitable for rural schools, such as basket-ball, ring-ball, captain-ball, and volley-ball, and of discussing the formation of literary societies, dramas, carnivals, etc., as a means of bringing life in the country back to that free and easy social status, which was a feature in the time of the hardy pioneers. Messrs. Carncross, Skelton, Small, Austin, and Misses Williams and Bevan focussed the attention of the audience on a number of unused opportunities and equipment for play and recreation in the average rural community. Mr. Carncross spoke of an experience as Assistant Representative in Eastern Ontario, where a certain town boasted of seven churches, and yet the young men loafed around the town, with no form of amusement. The young men were given access to the Agricultural Office, and used it as library, gymnasium, and centre of all-enjoyment, which work should have been undertaken by the church.

The evening session was opened by Dr. Creelman. A. Maclaren, Lecturer in Rural Sociology, discussed "The Influence of Pageantry, Drama, Story-telling, Carnivals, etc., in Arousing Community Spirit and Consciousness." His address was not only educative, and interesting, but was accompanied by shadowgraphs, dramas and scenes of pioneer days, where, unexpectedly, the neighbors called upon the rural habitant and all joined in an enjoyable evening of merriment and dancing, until Benjamin fell asleep at the sound of the music and the tripping of the light fantastic. G. R. W.

Farm Labor.

It has been announced by the Provincial Government of Ontario that a Department of Labor has been added to the various branches of the Provincial Government, at the head of which be placed a Deputy Minister. A scheme has also been announced for providing labor for Ontario farms during the coming season. Offices have been opened in some of the American cities near the Canadian border for the purpose of interesting men out of work in those cities to come to Canada to help with the farm work in 1916. One of the men connected with this work has made the statement that large numbers of men are available, among whom married men predominate, so that those farmers having cottages for married men will stand the best chance of getting this class of help, if it proves to be available in any quantity. The other scheme is to interest 15,000 city high school and collegiate boys, under military age, to spend the vacation working for farmers in the country. Whether or not these schemes will bring relief to farmers up against the labor problem remains to be seen. However, the movement is on foot, and farmers who can should plan to avail themselves of the opportunity, if such it proves to be, of getting some help for the summer season.

Dairymen and Dealers Should Take Warning.

Occasionally there is brought to our attention the result of actions taken against dairymen or produce vendors for breaking Canada's dairy laws. Not long ago a Western Ontario dealer was fined the minimum of \$10 on each of four counts brought against him, namely: For selling butter containing above the maximum permissible water content of 16 per cent.; for selling dairy butter in regular 56-lb. creamery boxes, not branded dairy butter; for having in his possession for sale butter containing above the maximum legal amount of water; and for having in his possession for sale dairy butter packed in creamery boxes and not branded dairy butter. The Dominion dairy authorities found some of this butter in Halifax which contained as high as 32.9 per cent. water. They

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found some dairy butter on the premises of the dealer in question containing as high as 19.9 per cent. water. The butter found in Halifax was, as stated, dairy butter, packed in the regular creamery box and not branded dairy butter, which is a contravention of the Dairy Industry Act. Some of the butter on the premises of this particular dealer was also found to be dairy butter packed in creamery boxes not branded dairy butter. We cite this case as a warning to dealers to be careful not to break the law. This particular instance was doubtless due to carelessness, but it is necessary that the law be lived up to in every particular in order that both the producer and consumer of dairy products in this country get what is coming to them. The Dairy Department would much rather not have to take action against anyone, and have all the dairy products up to standard, than to be called upon occasionally to make an example of some dealer who, through his own or some of his employees' carelessness, is convicted of offering for sale, or actually selling, products which do not meet with the requirements of the Dairy Industry Act.

T. L. Dunkin Disperses His Herd.

On March 1, T. L. Dunkin, of Norwich, disposed of his fine herd of Holstein cattle. The sale was held in a large tent, amply supplied with seats to accommodate the numerous buyers who gathered from far and near to purchase animals to increase and improve their herds. During the twelve or thirteen years that Mr. Dunkin was in the pure-bred business, he succeeded in building up a high-producing herd, and those who bought animals at his sale secured the results of his efforts. The stock was brought out in show condition, and bidding was brisk throughout the entire sale. The sale totalled nearly \$7,500, or an average of a little over \$128 for the 58 head. This was a fair price, when it was considered that at least half the stock were yearlings, or calves only a few weeks old. The highest price paid was \$370 for Shadelawn Cynthia Canary, a three-year-old heifer, which had been giving an exceptionally good account of herself at the pail. Moore and Dean were the auctioneers. The following is a list of animals selling for \$100 and over, with their purchasers.

Tidy Mercedes Canary, H. Burrill, Norwich	\$195
Shadelawn Tidy Canary, A. Thompson, Shakespear	190
Shadelawn Mercedes Thirteen, C. E. Smith, Scotland	210
Beauty Mercedes Queen, J. Leuszler, Bright	100
Shadelawn Ina Tritom, A. Thompson	295
Shadelawn Ina Echo, Enos Pick, Norwich	170
Shadelawn Ina Queen, J. Leuszler	145
Shadelawn Lillie, Geo. Saul, London	200
Shadelawn Lillie Canary, Enos Pick	120
Ina Tritom Canary, J. Furlong, Norwich	255
Prince Echo Sylvia, A. E. Cornwall, Norwich	215
Shadelawn Lillie's May Echo, Lloyd Slaght, Waterford	170
Shadelawn Canary Jewel, A. J. Holbrook, Hamilton	125
Houwte Pietertje Akkrum, Dr. Mott, Norwich	150
Houwte Pietertje Queen, John Moore, Britton	130
Shadelawn Bonnie Lassie 2nd, E. Comley, Hannon	190
Bonnie Lassie Canary, J. W. Cochrane, Niles-town	175
Shadelawn Lassie Echo, A. E. Hulet, Norwich	115
Shadelawn Aulinda's Canary, F. Lampman, Burgessville	155
Aulinda Comet Canary, Ralph Moore, Norwich	105
Shadelawn Lassie Posch, F. Lampman	110
Shadelawn Mechthilde Canary, C. Hammer, Norwich	175
Shadelawn Mechthilde 2nd, Geo. Saul	175
Shadelawn Mechthilde Queen, F. W. Goble, Woodstock	140
Shadelawn Cynthia Canary, Geo. Mahon, Woodstock	370
Shadelawn Cynthia Queen, A. Walker, Burgessville	105
Shadelawn Cynthia Ann, C. N. Hilliker, Norwich	155
Shadelawn Colantha Queen, F. W. Lee, Springfield	130
Shadelawn Aulinda 2nd's Queen, J. Leuszler	135
Shadelawn May Echo Gerben, F. Hilliker	150
Shadelawn Major Mercena, A. Moore, La Salette	130
Shadelawn Echo, E. Cole, New Durham	145
Shadelawn Gerben 2nd's Canary, E. Pick, Norwich	155
Shadelawn Aulinda 2nd's Canary, F. Hilliker	140
Shadelawn Gerben Canary, H. H. Bailey, Brantford	160
Shadelawn Lillie Queen, Geo. McCanbey, Burgessville	145

Toronto, Montreal, Buffalo and Other Leading Markets.

Toronto.
Receipts at the Union Stock Yards, West Toronto, from Sat., March 4, to Mon., March 6, numbered 141 car loads, 2,087 cattle, 467 hogs, 147 sheep and lambs, 15 calves, and 916 American horses in transit to France. Cattle trade was active and strong, and

10 cents higher for all approaching good to choice quality. Choice, heavy steers, \$7.75 to \$8.; choice butchers' \$7.60 to \$7.75; good butchers' \$7.25 to \$7.50; common, \$6.25 to \$6.90; cows, \$1.50 to \$7; bulls, \$5.50 to \$7; stockers and feeders, \$6 to \$7; milkers, \$50 to \$90; calves, \$5 to \$12. Sheep, \$6 to \$9.50; lambs, \$11 to \$13.50. Hogs, \$9.85, fed and watered.

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

	City	Union	Total
Cars	45	393	438
Cattle	633	4,211	4,844
Hogs	570	5,362	5,932
Sheep	88	465	553
Calves	86	663	749
Horses	384	2,356	2,740

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

	City	Union	Total
Cars	44	350	394
Cattle	386	4,234	4,620
Hogs	817	9,954	10,801
Sheep	528	913	1,441
Calves	54	705	759
Horses	88	456	544

Exercise Your Own Will Power.

EDITOR "THE FARMER'S ADVOCATE":

I hae juist been lookin' over one o' these Yankee papers that mak's a business o' tyrin' tae be funny, an' I see it announces the fact that Billy Sunday, the evangelist, is comin' tae New York in the year nineteen seventeen tae "save the city," as it says. It then gaes on tae doot whether it will be worth while; for some o' the ither cities that Billy has cleaned up didna' stay that way' but went back tae their "wallowin' in the mire." It wad be a guid idea, it thinks, for him tae save one home, an' keep it saved, juist for practice, as ye might say, an' then aifter a while he could wark up tae a big job like New York.

Noo, nobody kens juist hoo mony o' Billy Sunday's converts hae had the grit tae stick tae their guid resolutions, though frae what I hear there is eneuch o' them tae mak' the business a success maist any way ye look at it. But that is no' the point. What I want tae ken is why should onyone expect a preacher tae get a mon tae turn over a new leaf and then tae guarantee tae keep him that way. It's an absolute impossibility. The preacher's wark is tae point oot a mon's mistak's tae him an' tae induce him tae change his ways an' try an' live a better kin' o' a life. When he has done that he has done his share. Aifter that it's up tae the mon himsel'. He must fight his ain battles. It's the only way he can ever develop oon moral strength. An' gin his auld habits get the upper hand o' him an' land him back in the gutter again, we hae no richt tae point him oot as an example o' a certain preacher's wark, for he's naething o' the kind. He's an example o' what a mon may become that doesna' control his passions an' appetites, an' wha has allowed himsel' tae drift wi' the current instead o' tryin' tae swim against it. We canna' learn tae walk by gettin' some one else tae dae it for us. Na, na; we maun carry oor ain weight an' exercise oor ain will-power or we'll never tak' a step. It's only by exercisin' oor muscles that we get the strength for oor daily wark, an' it's only by pittin' oor guid resolutions intae practice that we finally get some moral strength an' character. Billy Sunday or ony ither mon can dae na mair than point oot the way an' get yer promise tae try it. The stayin' in that way a' depends on what like backbone ye've got. It's funny the ideas some folks get about preachers in general an' men like Billy Sunday in particular. They seem tae think that they should hae power tae wark a sort o' miracle some way, an' mak' it impossible for their converts tae ever dae a wrang thing again. I mind a guid mony years back ane o' these travellin' preachers that com' tae the toon nearby an' started holdin' what they called "revival meetings" in those days. It wisna' lang before he had the hale community gaein' tae hear him. An' I hae na doot he did some o' them a lot o' guid. But aifter he was gone some o' the young chaps that had promised tae change their ways, an' wha had made a guid start at it too, seemed tae get unco' tired o' sae muckle religion, an' tryin' tae walk the straight an' narrow way was ower wearin' on their nerves, na doot. Onyway a guid mony o' them drifted back intae their auld habits o' swearin' an' drinkin' an' such like, an' it got tae be the custom at last, when onyone wad mention the matter, tae say, "Hoot mon, what can ye expect, wis he no' ane o' McIntyre's converts?" Juist because the chap had no' backbone eneuch tae stick tae his guid resolution they blamed the mon that got him tae mak' the resolve. I canna' see ony sense tae it, but it's the way o' the world. I ken that some o' these travellin' preachers hae a queer way o' warkin' on the feelin' o' the people an', gettin' them excited like, till they're ready tae dae or say onything, but there's na' sae muckle o' that as there used tae be, an' onyway, when a mon finds he's on the wrang track, an' gaein' doon grade wi' the chance o' a smash-up at the end, ye canna' vera weel blame him gin he does get a wee bit excited. An' I dinna' think it's up tae us tae find ower muckle fault wi' the chap wi' the red flag that's oot tae warn us o' oor danger. For that's a' he can dae. He canna' switch us on tae aither track against oor will. It wad tak' mair than a Billy Sunday tae dae that. But Billy Sunday, or ony o' the rest o' them, are unco' willin' tae show us how we can switch oorselfs back on tae the main line again, an' I'm thinkin' we might better gie them the chance.

SANDY FRASER.

Five Hundred Jobless.

The record given out by the Toronto Civic Employment Bureau for February was finding employment for 500 jobless men. In view of the reported activity in industrial concerns and the large number of men gone into military service, this would seem almost incredible, but it is accounted for partly by

many able-bodied men flocking from outside points, including, perhaps, to some extent, from rural districts, attracted by easy money city jobs. Those looking for work also included about 100 retired men willing to resume active duties so that younger men might enlist, but the call for them was not encouraging.

Changes in the New Taxation.

As was predicted in financial circles when the details of the new taxation was made public in the Budget speech of the Honorable Sir Thomas White, Finance Minister, some changes have been found necessary. These were announced last week. It will be remembered that the retroactive period was set in the Budget spech to begin at the commencement of the war, Aug. 4, 1914. This has been changed to Jan. 1, 1915, which makes it possible to separate payment dates for the three years over which the tax is to run into 1916-17-18. To get over the difficulty with regard to reserves, capital will be accounted as only the actual unimpaired reserves of a company, and the difficulty about watered stock will be obviated by taking the cash value of the stock on January 1, 1915, and from it deducting all liabilities of the company, thus to form a basis of taxation. The Finance Minister is given the power to fix the assessment of mining companies as the profits come from the impairment of the assets of the companies. The capital employed in the business of a non-Canadian company will be such portion of the amount paid upon the entire capital stock as the value of its assets in Canada bears to the value of its total assets. Holding companies will not be called upon to pay on profits from other companies which pay under the Act, and payments of war taxes to Great Britain and her allies are to be deducted from any payment required by the Canadian Government. With these changes, all companies with a capitalization above \$50,000 come under the Act, and 25 per cent. of he profits above 7 per cent. in incorporated companies, and 5 per cent. of the profits above 10 per cent. in other firms, partnerships and individuals will go to the Government.

Take Up the Slack.

In view of the possibilities of war or finance dislocations and contradictions arising therefrom in the ability of the people of the United States to buy things really essential, a writer in the New York Outlook presents the following table of spendings for luxuries, or what he calls "economic slack" that can be taken up:

For moving pictures	\$ 450,000,000
For soda water	200,000,000
For candy	300,000,000
For chewing gum	50,000,000
For tobacco	800,000,000
For alcoholic liquor	2,500,000,000
Total	\$4,300,000,000

The alcohol item is an appalling one, and may well keep people thinking upon similar lines in Canada, which is actually in war up to the hilt.

Now that a majority of the milk markets are buying their supply on the butter-fat basis, it is with more than passing interest that we note the Register of Merit record of the Jersey cow Merry Maiden of Innesfells 307454, owned by Dr. J. F. Thompson, of Portland, Maine. The milk of Merry Maiden averaged 8.13 per cent. fat for 365 days. This is the world's highest butter-fat average for a year record. Her lowest monthly test was 7.13 per cent., made in the sixth month of her test, and the highest was 10.05 per cent., made in the twelfth month. The highest percentage of fat for a single milking was 11.00 per cent. Merry Maiden started test at four years four months of age, under the supervision of the Maine Agricultural College.

The final results show that she produced 560.4 lbs. fat, or 659 lbs. (85 per cent.) butter from 6,896.5 lbs. of milk.

Would Not Do Without It.

Would not be without "The Farmer's Advocate" as there are so many interesting letters written, and none more so than Peter McArthur's. He always strikes the right spot.
Restigouche Co., N. B. JAS. D. MCPHERSON.

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The combined receipts of live stock at the two markets for the past week show an increase of 44 car loads, 224 cattle, and 2,196 horses; and a decrease of 4,869 hogs, 888 sheep, and 10 calves compared with the corresponding week of 1915.

Receipts of all classes of live stock at the Union Stock Yards for the past week have been light. Trade was active in every department for all well-finished, good quality stock. In cattle, not only were the receipts smaller than for several weeks, but, the percentage of good to choice, well-finished animals also were less. This caused values for these classes to be very firm all week. On the other hand the unfinished half fat cattle were plentiful in comparison with the good, with trade for them dull, and draggy, all week with prices barely steady at the previous week's quotations. A few well-finished, choice steers, 1,300 to 1,400 lbs. each, not more than two car loads all told, sold at \$8 to \$8.10. Ten or twelve car loads during the week sold from \$7.50 to \$7.90; and the bulk, which consisted of medium and a few good sold at \$6.90 to \$7.40; common sold at \$6.50 to \$6.75, and were hard to dispose of at these values. Milkers and springers sold at steady values for some weeks past. One registered Holstein springer sold for \$115. There was not much doing in stockers and feeders, as the prices asked in some cases were higher than beef cattle were being bought at. Values for steers, 800 to 1,000 lbs., ranged all the way from \$6.50 to \$7.25, the latter, of course, being for de-horned steers of good colors, and there were few of them; steers of less weight sold from \$5.75 to \$6.25. Veal calves, sheep and lambs did not begin to equal the demand. Values for all of these were firm, especially for lambs, which made a new record, a few lots of black faces weighing around 85 and 90 lbs. each sold at \$13.25 per cwt. Hog values were decreased 25 cents per cwt. by the packers in the beginning of the week, but at the close prices went as high as at the close of the previous week, at \$10.25, fed and watered.

Butchers' Cattle.—Choice, heavy steers at \$7.75 to \$8.10; choice butchers' cattle at \$7.50 to \$7.75; good, at \$7 to \$7.25; medium, at \$6.50 to \$6.80; common, at \$6 to \$6.30; choice cows, at \$6.50 to \$7; good cows, at \$6 to \$6.25; medium cows, at \$5.50 to \$5.75; common cows, at \$4.50 to \$5; canners and cutters at \$3.75 to \$4.50; light bulls, at \$5 to \$6; heavy bulls, at \$6.50 to \$7.

Stockers and Feeders.—Choice feeders, 800 to 1,000 lbs., at \$6.50 to \$7; good feeders, 800 to 900 lbs., \$6.50 to \$6.75; stockers, 700 to 800 lbs., at \$6 to \$6.25; yearlings, 600 to 650 lbs., at \$6.25 to \$6.50.

Milkers and Springers.—Choice milkers and springers at \$90 to \$115; good cows at \$70 to \$85; common cows at \$45 to \$65.

Veal Calves.—Choice at \$11 to \$12; good at \$10 to \$10.50; common and light at \$7.50 to \$9.50; heavy, fat calves at \$7 to \$8.50.

Sheep and Lambs.—Light sheep, \$8.50 to \$9.50; heavy and common sheep, \$6.50 to \$7.50; lambs, \$11 to \$13.25; cull lambs, \$9 to \$9.50.

Hogs.—Selects, fed and watered, \$10.25; 50c. is being deducted for heavy, fat hogs, and thin, light hogs; \$2.50 off for sows, and \$4 off for stags, from prices paid for selects.

BREADSTUFFS.

Wheat.—Ontario, No. 2 winter, per car lot, 97c. to 99c., according to freights outside; slightly sprouted and tough, 93c. to 95c., according to sample; sprouted, smutty and tough, 90c. to 92c.; feed wheat, 83c. to 85c., according to sample. Manitoba, No. 1 northern, \$1.08 3/4, in store, Fort William; No. 2 northern, \$1.06, in store, Fort William; No. 3 northern, \$1.04, in store, Fort William.

Oats.—Ontario, No. 3 white, 40c. to 41c., according to freights outside; commercial oats, 39c. to 40c.; No. 2 Canada Western, 39 3/4c., in store, Fort William; No. 3 Canada Western, 37 3/4c., in store, Fort William; extra No. 1 feed, 37 3/4c., in store, Fort William; No. 1 feed, 36c., in store, Fort William.

Rye.—No. 1 commercial, 87c. to 88c., according to freights outside; rejected, 82c. to 84c., according to sample. Buckwheat.—Nominal; car lots, 70c. to 71c., according to freights outside.

Barley.—Ontario, good malting, 61c. to 63c., according to freights outside; feed barley, 55c. to 58c., according to freights outside.

American Corn.—No. 3 yellow, new, 79c., track, Toronto.

Canadian Corn.—Feed, 71c. to 73c., track, Toronto.

Peas.—No. 2, \$1.50; sample peas, according to sample, \$1 to \$1.25.

Flour.—Ontario, winter, \$4.30 to \$4.40, according to sample, track, Toronto; bulk seaboard, \$4.25 to \$4.30, prompt shipment. Manitoba flour—Prices at Toronto were: First patents, \$6.80; second patents, \$6.30, in jute; strong bakers', \$6.10, in jute; in cotton, 10c. more.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$17 to \$18; No. 2, \$14 to \$15, per ton, track, Toronto.

Straw.—Baled, car lots, \$6.50 to \$7, track, Toronto.

Bran.—\$25 per ton, Montreal, freight; shorts, \$26, Montreal freight; middlings, \$27, Montreal freight; good feed flour, per bag, \$1.60 to \$1.70, Montreal freights.

COUNTRY PRODUCE.

Butter.—Prices remained about stationary on the wholesales during the past week. Creamery, fresh-made pound squares, 35c. to 36c.; creamery, cut, 33c. to 34c.; creamery solids, 31c. to 33c.; separator dairy, 28c. to 30c.

Eggs.—New-laid remained stationary, selling at 29c. to 30c. per dozen. Cold-storage eggs also kept about even at 23c. to 24c. per dozen.

Cheese.—New, large, 19c.; twins, 19 1/2c. per lb.

Honey.—Extracted, 12c. to 13c. per pound; combs, per dozen sections, \$2.40 to \$3.

Beans.—Primes, \$4.25 to \$4.50; hand-picked, \$4.50 to \$4.75 per bushel.

Poultry (live weight).—Chickens, 14c. to 17c. per lb.; fowl, heavy, 16c. per lb.; fowl, light, 14c. per lb.; ducks, 17c. per lb.; geese, 12c. per lb.; turkeys, young 20c. per lb.; old, 18c. per lb.

Potatoes.—Potatoes were very slow on the wholesales during the past week, but remained about stationary; the New Brunswick Delawares being \$1.80 to \$1.90 per bag, car lot, and Ontarios \$1.75 per car lot.

HIDES AND SKINS.

City hides, flat 18c.; country hides, cured, 16c. to 17c.; country hides, part cured, 15c. to 16c.; country hides, green, 14c. to 15c.; calf skins, per lb., 18c.; kip skins, per lb., 16c.; sheep skins, city, \$2 to \$3; sheep skins, country, \$1.50 to \$2; lamb skins and pelts, \$1.20 to \$1.25; horse hair, per lb., 37c. to 40c.; horse hides, No. 1, \$4 to \$5; No. 2, \$3 to \$4. Wool, washed, 40c. to 44c. per lb.; wool, rejections, 33c. to 35c. per lb.; wool, unwashed, 28c. to 32c. per lb. Tallow, No. 1, 6 1/2c. to 7 1/2c.; solids, 6c. to 7c.

FRUITS AND VEGETABLES.

Prices in both fruits and vegetables remained about stationary on the whole sales during the past week. Potatoes are slow at \$1.90 per bag for Ontarios, and \$2 to \$2.05 for New Brunswick Delawares.

Montreal.

On account of storms and other obstacles to transportation supplies of live stock were light during the latter part of last week at Montreal. On Monday 550 cattle, 75 sheep and lambs, 1,150 hogs, and 100 calves were on sale. Trade was however, on the whole, a little freer, and an easier feeling developed in the market, which resulted in the decline of 10c. to 15c. per 100 lbs., with sales of choice steers at \$7.65 to \$7.85 per 100 lbs. Wednesday's supply was still lighter on account of storms, and in consequence the undertone of the market was stronger, as butchers, in many cases, wanted a few to fill their requirements for the balance of the week. There were no choice steers on the market, but a few head of good sold at \$7.50, and the lower grades from that down to \$5. The tone of the market for sheep and lambs was very strong during the middle of the

week, and prices scored a further advance of 25c. to 50c. per 100 lbs. The demand for calves continued strong. Hogs were still easy.

Butchers' Cattle.—Choice, \$7.65 to \$7.85; medium, \$6.25 to \$7.25; common, \$5.15 to \$5.35; canners, \$4 to \$4.75; choice cows, \$6.25 to \$6.50; medium cows, \$5.75 to \$6; bulls, \$5.75 to \$7.

Milkers and Springers.—Choice milkers, \$85 to \$90; common and medium, \$75 to \$80; springers, \$60 to \$70.

Sheep and Lambs.—The tone of the market for sheep and lambs was very strong, and prices saw a further advance of 25c. to 50c. Sheep sold at \$7.75 to \$8; and lambs at \$11.50 to \$11.75 per 100 lbs. Bucks and culls ranged from \$7 to \$7.25.

Calves.—The demand for calves was good. They sold at from \$4 to \$10 each, according to size and quality.

The market for hogs continued easy, with sales of selected lots at \$10.40 to \$10.50 per 100 lbs., weighed off cars. Dressed hogs, abattoir-killed, 14 1/2c. to 14 3/4c.; country-killed, 13 1/2c. to 13 3/4c.

Grain.—The local trade in coarse grains continued quiet, the demand being only for small lots to fill actual wants. Demand for flour was slow, and prices were nominally unchanged.

Corn.—American No. 2 yellow, 82c. to 83c.; oats, Canadian Western, No. 2, 48c. to 48 3/4c.; do. No. 3, 46c. to 46 1/2c.; do. extra No. 1 feed, 46c. to 46 1/2c.; barley, Manitoba feed, 66c.; do. malting, 76c. to 78c.; buck-wheat, No. 2, 80c. to 82c.

Flour.—Manitoba spring wheat patents, first, \$6.90; do. seconds, \$6.40; do. strong bakers', \$6.20; do. winter patents, choice, \$6.50; do. straight rollers, \$5.90 to \$6; do. bags, \$2.75 to \$2.85. Rolled oats, barrels, \$5.25; do. bags, 90 lbs., \$2.50.

Mill-feeds.—Bran, \$26 to \$26.50; shorts, \$26; middlings, \$28 to \$30; mouille, \$31 to \$33.

Hay.—No. 2, per ton, car lots, \$20 to \$20.50.

Butter and Cheese.—Butter, choicest creamery, 33 3/4c. to 34 1/4c.; seconds, 31 1/2c. to 32 1/2c. Cheese, finest Western 18 3/4c. to 19c.; finest Easterns, 18 1/4c. to 18 1/2c.

Eggs.—Fresh eggs, 32c.; selected, 26c. to 27c.; No. 1 stock, 24c. to 25c.; No. 2 stock, 21c. to 22c.

Potatoes.—Per bag, car lots, \$1.80.

Buffalo.

Cattle.—Buffalo showed a considerably improved cattle trade last week, partly by reason of a lighter run than the preceding week, and also for the reason that the dressed beef trade changed last week for the better. Attendance of buyers was the best at Buffalo for some weeks past on the better kinds of steers, and some of the eastern order buyers were unable to meet their demands, so fast was the trade and so quick were these kinds cleaned up. There were not exceeding fifteen to twenty loads of shipping steers, and these were placed during the early part of the morning session. Best native steers ranged from \$8.40 to \$8.50, but prime kinds were quotable up to nine cents and better. In the handy butchering steer line best kinds ranged from \$7.90 to \$8.15, but real, prime, handy steers could be cashed up to \$8.50. Buyers complained that there were no more of the good kinds than were offered. On steers generally it was a 15 to 25 cents higher level than the week before. She stuff of any class sold 15 to 25 cents higher and found ready sale, best heavy cows selling up to \$6.25 to \$6.75, few fancy kinds up to \$6.75 to \$7, with heavy heifers generally \$7.25 to \$7.50, some fancy enough to bring up to \$8 to \$8.25. Bulls were selling high, \$7.25 being the extreme top last week, and quite a lot of medium-weight bulls were running from \$6.50 to \$6.75, very few little, common grades dropping under a nickel. Stockers and feeders were scarce, two loads running from \$6.50 to \$6.75. Milcher and springer trade was strong, dealers, however, showing decided preference for the better kinds, backward springers and common grades of milchers being sold at beef prices. Receipts the past week totaled 3,625 head, as against 4,825 for the previous week, and 1,400 for the corresponding week a year ago. Quotations: Shipping Steers.—Choice to prime natives, \$8.50 to \$9; fair to good, \$8.25 to \$8.40; best Canadians, \$8 to

\$8.25; fair to good, \$7.25 to \$7.75; common and plain, \$6.50 to \$7.

Butchering Steers.—Choice, heavy, \$8 to \$8.40; fair to good, \$7.35 to \$7.60; best handy, \$7.75 to \$8.25; common to good, \$6.25 to \$7.40.

Cows and Heifers.—Prime, weighty heifers, \$6.75 to \$7; best handy, butcher heifers, \$6.75 to \$7.25; best heavy, fat cows, \$6 to \$6.25; good butchering cows, \$5.25 to \$5.75; cutters, \$3.75 to \$4.25; canners, \$3 to \$3.85.

Bulls.—Best heavy, \$6.75 to \$7.25; good butchering, \$6.25 to \$6.75.

Stockers and Feeders.—Best feeders, \$6.50 to \$6.75; common to good, \$6 to \$6.25; best stockers, \$6.25 to \$6.50; common to good, \$5 to \$5.75.

Milchers and Springers.—Good to best, in small lots, \$75 to \$85; in car loads, \$60 to \$70.

Hogs.—Prices last week, under light receipts and a strong demand, were on the upward bound. Last week started with best grades selling generally at \$9.25 and pigs \$8.75; Tuesday bulk went at \$9.25 and \$9.30, with pigs \$8.75 to \$9; Wednesday, tops reached \$9.50, with pigs \$8.75 and \$8.85, and Thursday and Friday the bulk of the offering brought \$9.60, with pigs selling around \$8.75 and \$8.80. Roughs the latter part of the week brought up to \$8.40 and \$8.50, and stags went from \$6.50 down. Receipts were approximately 23,400 head, being against 29,779 head for the week previous, and 15,900 head for the same week a year ago.

Sheep and lambs.—Another new record was made at Buffalo for lambs last week, one load selling Monday at \$12.10, with several cars going at \$12. The late Monday trade, however, was slow, and weak, and the market the next few days occupied a very unfavorable position. Tuesday and Wednesday the top dropped to \$11.65, with but few reaching above \$11.50, and Thursday and Friday the top was \$11.75, with the majority going at \$11.50 and \$11.60. Cull lambs reached up to \$11, and the top for yearlings was \$10.25. Sheep were scarce and firm, choice wethers selling up to \$9.25 and ewes \$8.50 down. Receipts were 16,100 head, being against 17,755 head the week before, and 15,100 head for the same week a year ago.

Calves.—Market last week was active, and best lots were held within a seventy-five cent range. Monday, best veals brought from \$12 to \$12.50; Tuesday's top was \$12; Wednesday and Thursday best lots moved at \$12 and \$12.25, and Friday, which was the high day of the week, choice grades made \$12.50 and \$12.75. Culls went from \$10.00 down, and fed calves around \$5 and \$5.50. Receipts last week were 2,300 head, as compared with 2,056 head for the week previous, and 1,675 head for the same week a year ago.

Chicago.

Cattle.—Beeves, \$7.25 to \$9.70; stockers and feeders, \$5.75 to \$7.85; cows and heifers, \$3.45 to \$8.45; calves, \$8.50 to \$11.25.

Hogs.—Light, \$8.65 to \$9.15; mixed, \$8.75 to \$9.20; heavy, \$8.65 to \$9.20; rough, \$8.65 to \$8.80; pigs, \$7.95 to \$8.35; bulk of sales, \$8.90 to \$9.10.

Sheep.—Native, \$8.20 to \$8.80; lambs, native, \$9.60 to \$11.40.

Gossip.

J. H. Patrick & Son, Ilderton, Ont., report shipping two carloads of Short-horn bulls to Ogden, Utah, U. S. A., this month, and expect to make a similar shipment in April.

SALE DATES CLAIMED.

March 14—W. J. Cowan, Cannington, Ont.; Clydesdales and Standard-breds.

March 14—East Elgin Breeders' Sale, at Aylmer, H. C. Mann, Secretary.

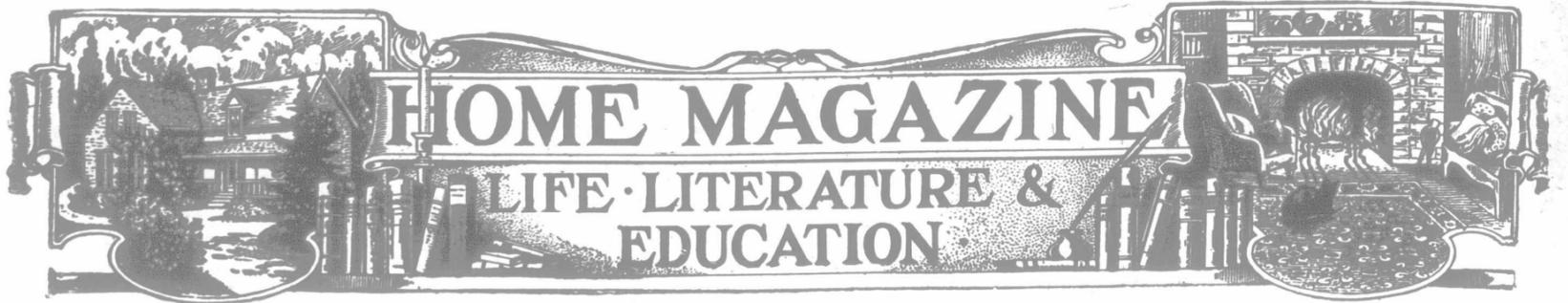
March 15—Oxford District Holstein Breeders' Club Consignment Sale, at Woodstock; W. E. Thomson, Woodstock, Secretary.

March 22—Byron Bowlands, R. R., Carleton Place, Ont.; Holsteins.

March 24—Allan B. Mann, Peterborough, Ont.; Clydesdales and Short-horns.

March 29—Western Ontario Consignment Sale, London, Harry Smith, Hay, Ont., Manager.

April 19—James Benning, Williams-town, Ont.; Ayrshires.



The Little Homes.

O little homes of all the land!
O little twinkling, hidden homes
Of simple gladness, joys unplanned!
I grieve to think that one heart roams
Beyond the light of little homes.

O little homes, your arms reach far
In tenderness and service sweet.
To where the very lonely are.
Your lights still keep the wearied feet
From wandering to some noisome
street.

All little homes about our land,—
Dear stanch and faithful little
homes,—
You hear our hopes, you understand,
And help each restless heart that
roams.
God's outposts are the little homes!
MARY CAROLYN DAVIES.

Browsings Among the Books.

THE COUNTRY HOME.

["The Country Home," by E. P. Powell; McClure, Phillips & Co., New York.]

With the coming of March, as the sunshine grows warmer, and bare spots begin to appear in the fields and runnels of water to gurgle along the roadside, the thoughts of the true country-lover turn to the country home. What can be done to improve it this year? Are there trees to be planted? Shrubs? Flowers?—And there, waiting to be cleaned up, are the yards, somewhat raggy with the debris of a winter's storms!

Among the most enthusiastic of country-lovers was Mr. E. P. Powell, who for many years was a well-known contributor to a number of the best American magazines. Wherever he lived, first in the heart of New York State, then, for a short time, in the South, his home became, under his hands, a spot of beauty. Last summer he died, very peacefully, and as he might have wished, out of doors. He had gone out in a sail-boat on a small lake adjoining his land. When he failed to return someone went to seek him, and found him, lying in the boat, with his dead face upturned to the blue sky.

A book written by him, "The Country Home," affords very interesting reading. It was intended, it is true, for the city man retiring to the land, or the man who loves a cosy and unpretentious home above broad acres, rather than for the farmer who desires to farm on a great scale; moreover, there are certain observations that can be applied only to the more southerly portions of Canada; yet throughout there are useful suggestions in plenty, given in Mr. Powell's own delightfully intimate and sympathetic manner.

He begins with a full appreciation of the dignity of agriculture and the need for brain work in carrying it on. "You will find no industry," he says, "so complex as agriculture—rightly pursued. Every science will have to be subsidized for help." His own observations, however, are confined to the practice rather than the theories that may connect themselves with the country home, practice, too, bound up with high and sweet ideals. "My purpose, in fine, is to help you to get acquainted with the trees, bugs, brooks, and birds; to develop a capacity for society with things, and to open that big book whose pages are pastures and forests and meadows, and farm-clad hillsides."

SELECTING A HOME.

those who are looking for a new home he advises, "you will recognize

something of yourself when you see the place where you ought to establish your home. . . . There are so many delightful spots; and we are going to have a home where the squirrels chatter, and the birds sing, and the beech nuts fall like hail. . . . There are so many beautiful homing spots unoccupied that one wishes he might live at once a dozen lives. I never drive along an unfrequented road without seeing places that seem to beckon to me to come and make up ready material into a home."

He himself, a devotee of intensive farming, settled, with a little capital, on a very small farm of nine acres. "They are at least one-half devoted to ornamental trees, shrubs, and flowers," he explains, "yet I find it possible to sell from one thousand to twelve hundred dollars' worth each year of small fruits." Presumably, of course, his land was situated near a good market. For such a fruit farm he advises a southeast slope, with its certainty of morning sunshine, and, above all things, a commonsense view in regard to the work that must be done: "Be sure of one thing, that you do not indulge in shame for any honest work. It is not a disgrace to sell—peddle, if you choose to call it—what you have the wit to produce. Above all, keep out of your children's heads that earning is less honorable than spending. I have poor neighbors who, for their dear lives' sake, would not take a load of vegetables or berries to market. False shame is always a mark of degeneracy."

In improving the lawns of the country home, avoid terraces, and do not make the mistake of turning the place into a museum. "Around the house let nature do largely as she will, with your brains and hands to co-operate. Better a half-dozen hearty native trees, in free development, full of birds' nests, than a lot of dwarf trees and weeping trees and homesick trees from China, each

running to a cesspool, which, in turn may be transformed into a compost heap, valuable for fertilizing the land. A dry-earth closet is recommended. The cellar should be at least eight feet to the ceiling, and should be very thoroughly lighted.—There is no reason why one should creep about a dark, underground dungeon to find potatoes for dinner." The kitchen "ought to be the brightest, and, in some sense, the homeliest room in the whole house. Here is the center of a lot of thinking and of household art. Here are to be discovered and invented those marvelous concoctions which create good temper as well as good digestion. A mean kitchen will have a

blighting influence on every room in the house. Permanent seats, which are also lockers, ought to be arranged for it, together with plenty of cupboards. Every kitchen . . . should have as adjuncts a vestibule and a storeroom. Both of these should be neatly finished—not places for litter and carelessness. The storeroom should be large enough to contain barrels and boxes of food, and whatever else would crowd a pantry. I take it for granted that every rational country household buys by wholesale what it cannot grow, and so saves in the cost. Where wholesale purchasing is impossible for an individual, it can be secured by the clubbing of half a dozen families. The vestibule of the kitchen should be an orderly receptacle for overshoes, heavy boots, blacking brush, brooms, and should have its hooks for wet wraps and umbrellas. Along one side it should have a locker large enough to serve as a receptacle for slop pails."

(To be continued.)

THE HOUSE ITSELF.

A very important observation is that "a country house must not be a city house transferred to rural surroundings, and in this way misplaced." The country house should fit into its surroundings; should look as though it grew up of itself where it is, should have plenty of spacious windows on all sides, and, above all things, should express the idea of "home." As a rule breadth, not height, should characterize the house in the country. There is no necessity, where there is plenty of land, to build high, narrow, cheerless edifices such as must be made to fit cramped city lots. Instead of going to the city to study homes there, the prospective builder in the country will do well to secure some magazines devoted exclusively to country homes and derive his ideas from them.

Good drainage is a necessity, while sewerage may be obtained by drains

Messages from Two Well-Known Canadian Women.

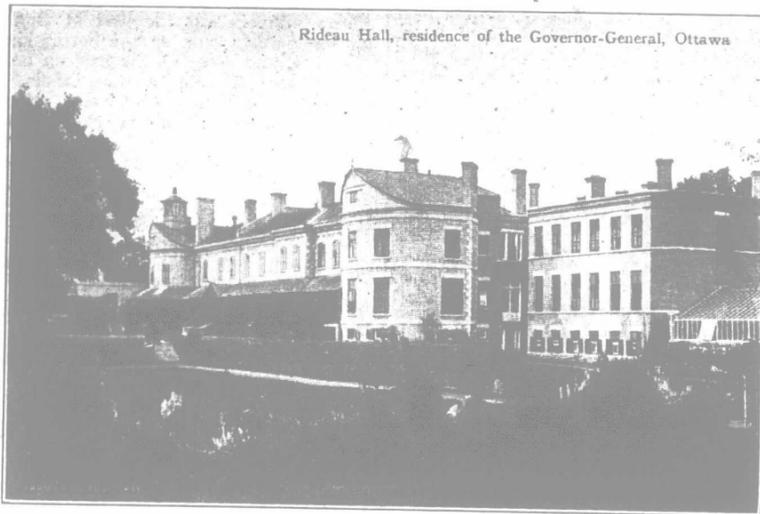
There is no real discrepancy in publishing the two following articles in one issue. The first deals with the necessity, which all recognize, that the war in hand must be fought to a finish; and that all must help; the second emphasizes a necessity not less great—that when this war is over steps should be taken, if possible, to prevent the recurrence of a similar horror. When the awfulness of the war is upon us may not be an inopportune time to think out means, if such a thing can be done, to such a blessed end. International and permanent peace is not a dream of fanatics, but to make it a certainty it must be worked for, with brains, and time, and money.

SOMETHING ABOUT WOMEN IN PATRIOTIC SERVICE.

Seeing that two, at least, of the ladies appointed by our Ontario Government must be personally known to a large section of the readers of "The Farmer's Advocate" through the Women's Institutes of our Province, it goes without saying that in offering a few words upon the very live topic thus officially entrusted to them, I do not consider I am introducing a new subject, but rather that thanks to the indulgence of "The Farmer's Advocate" in making room for her old correspondent, the opportunity is offered me to throw one or more sidelights upon the subject in its initiatory stages.

Moreover, as the several local branches of the National Council throughout the Dominion earnestly desire to endorse and help the movement in every possible way, and as the Women's Institutes are in such close relationship nationally and in their several localities, with them, I am anxious to answer some questions of detail which have reached us from many quarters.

The first definite proposition is the formation of Women's Emergency Corps in several centres, with registration officers to record the names of applicants who offer to fill, as substitutes, positions vacated by men who have enlisted for service in the several regiments being raised all over Canada. One of our local council's strongest affiliated societies, the Woman's Canadian Club of London, has already taken the lead and has formed a committee of responsible ladies to get into shape the emergency corps for o



Rideau Hall, residence of the Governor-General, Ottawa

Rideau Hall, Ottawa.

out of harmony with the others, and with the place which you call home."—Unpleasant talk, this, for the nursery men, perhaps, but pleasant enough for those who, considering the money calls of this war-time, desire to make their homes beautiful at small expense. Wire fences are recommended above those made of boards, because they are inconspicuous and do not mar the view.

As a final thought, the home should express those who live in it. "Anyone going by such a home should easily be able to say, 'That is Tom Jones' place—I'd know it by the look of it, by the free and easy approaches. It looks like him.' . . . The country house should stand far back from the

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district. It will probably adopt with little variation the following form of registration, as already in use by the Women's Emergency Corps and Military Division, Toronto Branch.

The Women's Emergency Corps has been formed in order to enable women to give what help they can to meet the situation arising from the call of the Government for 500,000 men for overseas' service. In order that the industrial, commercial and productive life of our nation may be as little crippled by the departure of these men as possible, the call for recruits among women to undertake emergency work in their absence comes just as loudly as the call sounds for men for military service.

REGISTRATION FORM FOR WOMEN FOR SERVICE DURING THE WAR.

Central Registration Bureau, 559 Sherbourne Street, Toronto.

- 1. Christian Name and Surname?
2. Full Address?
3. Age?
4. Married, Single, or Widow?
5. Nationality?
6. Have you ever done paid work? If so, what?
7. If so when. (Give date as nearly as possible, with the Employer's name or names).
8. Are you free to work (a) whole time? (b) part time? (c) to leave your home for work if pay is sufficient and housing satisfactory?
9. What work are you willing and able to do?
10. If you have never done paid work, what kinds of work do you think you could do?
11. Are you prepared to be trained for work which you have not previously done?
12. Give name and address of two persons (not relatives) to whom you are well known, to whom reference may be made, one of whom should be, if possible, a doctor.

The whole movement is designed to help and not to hinder, and only help where and when help is needed.

First and foremost applicants are made to understand that the work for which they offer is merely "Substitute Work," and that it will cease to be required of them when the position can again be filled by the return to it of the men who formerly occupied it. Every possible safe-guarding from incompetence is enjoined upon the committee of investigation, who by the wording of the paragraphs to which I would allude, are especially called upon to make careful enquiry as to the lines of work for which the applicants are fitted, either by previous experience or readiness to submit to necessary training; to obtain satisfactory references, endorsements, etc. and to make it quite clear that vacancies should only be filled in the following order: 1st, by returned soldiers; 2nd, by men who are not fit for military service; and 3rd, by only suitable women. We hope your readers will mark the sequence and draw from it its logical conclusion that the women of Canada not only would not, if they could, but could not if they would, seek to fill the places of the brave men returned invalided home, or of the veterans who may desire to fill the gaps caused by the absence of those who may yet enlist as the soldiers of Canada.

So far, maybe, it may seem to some of the less observant, or perhaps the too buoyantly optimistic amongst us, that no special need exists for any immediate replanning of our social lives to meet the changed conditions of things, as is the case in so many other parts of the Empire, but we do not know what the future may have in store for us, and, therefore, it is well to be ready. Moreover, may I not claim for the women of Canada a tribute paid by a writer in the London Times of the first few days of 1916, who, after enumerating the several employments, intellectual, as well as manual, waiting to be filled in England: "But whatever the New Year may hold for these volunteer workers, the ideal of useful service will be foremost in the minds of the majority of women."

We do not live amidst the horrors which make war-time such a vivid reality to the women of our own and of the allied nations, but the events of the last eighteen months have surely taught us many lessons, amongst them the most necessary and practical one

of preparation: They should and indeed surely will inspire us to strain every nerve, and to use even the very smallest talent entrusted to us, so that every woman of Canada may at least find "her bit" and the way to do it, and thus help in the bringing about of the glorious, honorable peace for which so many of our brave Canadian men are laying down their lives.

HARRIET A. BOOMER, President Local Council of Women.

Until further announcements are made, any communication sent to Mrs. Gordon Wright, 133 Elmwood Ave., London, will be attended to.—Convener.

THE PACIFIST GOSPEL.

To the Editor,—In England, in France, in Germany, in Montenegro, and other warring countries, there is free and full discussion of the causes underlying war, there are groups of people united to foster an understanding of the enemy, and there are societies whose object is to prepare for a permanent peace. The Nation, Public Opinion, Daily Herald, and other British papers, which they quote, are dispassionately discussing the causes of war, and they are blaming war, and the Germans, as the menace to civilization. They are seeking causes deeper than national causes, they have not given over all their brains to the militarists, nor are they willing to accept all their conclusions without questioning them. The English people and the Canadian people are marked contrasts in their attitude to the war. The British people refuse to be blinded by prejudice, they want to know the truth, they do not believe that force is the only solution for this present difficulty, and the pacifists with their varying remedies are, in England, given a hearing.

What we all want is to end war forever, to establish universal peace and brotherhood. The militarists say that it cannot be done. The pacifists say it can be done and done in our day if we will trust to ideas instead of swords if we will seek justice and not aggrandisement of our own countries, and if we will believe that deeds of service are a better guarantee of peace than retaliation for evil. Preparation for war has involved the world in war. We claim that preparation for peace will bring peace, but that preparation must be as active, as well planned, and as far reaching as the preparation for war

has been. The first step to such preparation is the diffusion of general information on international questions and relations, and the belief in democracy. Perhaps, more fundamental than the means of preparation is the faith that peace and human brotherhood can only be established through ideas, and that we must disseminate the ideas of good-will, and co-operation, and awaken the public to faith in its own ideals.

In England, there is a great variety of peace societies, commencing with the Union for Democratic Control, of which eight members of Parliament are directors, and whose aim is "to bring about such a settlement at the close of the war and such changes in the official procedure between nations as will lead to a permanent peace instead of a renewal of armaments." Then the Quakers have organized for the understanding and removal of the economic causes that underly not only war between nations but disputes between capital and labor. There are groups of people who accept Christ's teaching, "love your enemy," as voicing a universal law of the universe, and not a nice aphorism to be obeyed when convenient. There are all sorts of international aims put forth as the objects of these various pacifists' groups and they get publicity.

In Canada, can not we, who agree that ideas must be the foundation of any permanent peace unite to forward those ideas? We may differ as to the value of the particular idea, but we can agree that life develops from within, that force never yet accomplished what has been claimed for it. There are three steps that a pacifist can take individually. First, disseminate non-partizan knowledge of international disputes and relations; secondly, desire a settlement, favorable to all the parties involved, irrespective of his individual sympathies; and thirdly, advocate the substitution of deeds of service for retaliation. The non-resistant believes that the best method of conquering your enemy is to turn him into a friend. He would strive to find acts of good-will that would further mutual understanding. Will any people who believe that it is time that Canadians were showing the same intelligence and breadth of view in the discussion of this war as the British, who believe that if the militarists are willing to risk their future and their lives for their faith in force, the pacifist must

be willing to pay the price for upholding ideas and love as the means of overcoming war permanently, let me hear from them? If the pacifists in Canada could discover each other and unite, we would find means of strengthening each other's hands and extending the only way that has any promise of abolishing war, namely good-will and education.

Clarkson, Ont. ALICE A. CHOWN.

Smiles.

Mixed Metaphors.—This is an extract from the report of a congress dealing with sweated labor held in London: "Thornton Burke gave a terrible picture of life in the East End of London, where, he said, there were thousands of people grinding their faces in the dust of poverty and trying, at the same time, to keep their heads above water."—A temperance advocate once exclaimed: "Let us take our guns on our shoulders and plough the waste places till the good ship Temperance sails over the land!"—A well-known preacher is credited with the declaration that "William Penn, the founder of Pennsylvania, never made a treaty with the Indians, and never broke one."

When James G. Blaine was a young lawyer he was once asked to defend a tramp accused of stealing a watch. Convinced of the tramp's innocence, Mr. Blaine pleaded with such convincing energy and eloquence that the court was in tears; even the tramp wept, and the jury almost immediately returned a verdict "Not guilty."

Then the tramp drew himself up and, with intense gratitude, said:

"Sir, I never heard so grand a plea. I have no money with which to reward you, but—" drawing a package from his ragged clothes—"here's that watch! Take it, and welcome."

Noblesse Oblige.—"Mother," said little Mabel, "do missionaries go to heaven?"

"Why, of course, dear," her mother replied.

"Do cannibals?"

"No, I'm afraid they don't."

"But, mother," the little girl insisted, "if a cannibal eats a missionary he'll have to go, won't he?"—New York Evening Post.



Kut-el-Amara, on the Tigris River.

Where Gen. Townshend's forces are awaiting help from Gen. Aylmer's relief expedition. Photo by Underwood & Underwood.

Hope's Quiet Hour.

We Have Found Him.

We have found Him, of whom Mose, in the law, and the prophets, did write JESUS of Nazareth.—S. John 1:45.

When anyone has made the Great Discovery, which changes life as the rising sun changes the appearance of all things, he is eager to bring others to the Master he has found. St. Andrew abode with our Lord for an hour or two, and then hurried to his brother with the wonderful tidings: "We have found the Messias!" The next day a neighbour of these two fishermen was claimed by the Master of men. St. Philip did not find Christ. We are told expressly that "Jesus would go forth into Galilee, and findeth Philip". Yet it was a mutual discovery, for the new disciple told his friend Nathanael: "We have found Him....Jesus".

When Saul of Tarsus was madly persecuting the Christians, their Master found him and arrested him with the startling words: "Saul, Saul, why persecutest thou me?" The answer proved that the proud Pharisee had found his Master. "Who art Thou, Lord?" "he asked in sudden humility. The answer was quiet and convincing: "I am JESUS."

Professor Harris has pointed out that St. Paul never seemed to lose the joy of his new life of faith and freedom, nor did he lose the surprise of it. It was always to him a new thing. "The great discovery was then and still is a perpetual wonder, ever renewed as the life of faith springs up again and again."

The surprise and joy of the great discovery may be seen plainly in the following verses, which were sent to me by our old friend "Mollie." She told me that the Bishop of London quoted them in his sermon on Trafalgar Day, as having been written in the trenches. The poem is named: "Christ in Flanders." It will, I am sure, go straight to the heart of those of our readers who have dear friends at the front and who have found out that "spirit with spirit can meet", though the ocean may flow between. This is a soldier's announcement that he has made the great discovery. He is speaking to Christ and says:

"We had forgotten You; or very nearly You did not seem to touch us very nearly—
Of course we thought about You now and then;
Especially in any time of trouble—
We knew that you were good in times trouble—
But we are very ordinary men.

"And there were always other things to think of—
There's lots of things a man has got to think of—
His work, his home, his pleasures and his wife,
And so we only thought of you on Sunday,
Sometimes, perhaps, not even on a Sunday,
Because there's lots to fill one's life.

"And all the while in street or lane or byway—
In country lane, in city street or byway—
You walked among us, and we did not see.
Your feet were bleeding as You walked our pavements—
How did we miss Your Footprints in our pavements?
Can there be other folk as blind as we?"

"Now, we remember, over here in Flanders—
(It is not strange to think of You in Flanders—
This hideous warfare seems to make things clear.)
We never thought about You much in England—
But, now that we are far away from England,
We have no doubts: we know that You are here.

"You helped us pass the jest along the trenches—
Where in cold blood we waited in the trenches—
You touched its ribaldry and made it fine,
You stood beside us in our pain and weakness

We're glad to think You understood our weakness—
Somehow it seems to help us not to whine.

"We think about You kneeling in the garden—
Oh, God! the agony of that dread garden—

We know You prayed for us upon the Cross.

If anything could make us glad to bear it,
'Twould be the knowledge that You willed to bear it—

Pain—death—the uttermost of human loss.

"Though we forgot You—You will not forget us—

We feel so sure that You will not forget us—

But stay with us until this dream is past.
And so we ask for courage, strength, and pardon—

Especially, I think, we ask for pardon—
And that You'll stand beside us to the last."

How well God understands the human heart. In all ages the spirit of man has found strength, courage, joy and peace in the consciousness of the Divine Friend's Presence. When Moses trembled at the call to his tremendous mission, the sufficient and significant promise of God was enough: "Certainly I will be with thee." Joshua was encouraged by the same promise: "As I was with Moses, so I will be with thee: I will not fail thee, nor forsake thee." Over and over again the command "Fear not!" is given, and the secret of fearlessness is always the same: "I am with thee." The whole Bible can be summed up in the one great word: "Emmanuel!"—God with us. Our Lord cheered His despairing followers by telling them that He would not leave them desolate, but would come to them. Before He vanished out of their sight, this all-sufficient promise was repeated: "Lo, I am with you always." The last promise which is recorded in our Bible is: "Surely I come quickly."

Even the little sparrow, when it falls to the ground, is not left alone—the Father is there. His Presence is the Great Reality. Those who stand in the glory of the Sun of Righteousness find that in Him there is no darkness at all. The terrors of the dark hours vanish like a dream. A year ago men were saying despairingly: "This war proves that Christianity is a failure!" Now we hear from many different sources that France has found the God she had forsaken; that there is a great revival of religious feeling in Russia; that the Italians are praying earnestly to God, and that the soldiers in the trenches are turning in their need to their unseen Captain. We know that anxious hearts all over the British Empire are praying, every hour of the day and night, as they have never prayed before. Many millions, in this time of awful darkness, are reaching out appealing hands to clasp the Hand of God—and they who seek shall find. Until they realized their need, many were too busy with earthly things to seek God. "There were always other things to think of—there's lots of things a man has got to think of." But, in times like these, many things which used to seem important look very trivial indeed. When a man is looking Death in the face, day after day for weeks or months, he knows that the making of a fortune is a trivial matter compared with the finding of the Eternal God. When His hand is clasped, the darkness ceases to be terrifying. He is the King to whom all the rulers of earth's kingdoms must bow. How can we despair if we really believe our everyday statement: "Thine is the kingdom and the power?"

St. Paul suffered the loss of all things, and felt that the matter was scarcely worth considering if only he might win Christ and be found in Him (Phil. iii, 8). Christ is the Pearl of great price—worth infinitely more than all the treasures of earth, and yet ready to give Himself to any seeking soul. Have you found Christ? If not, are you earnestly seeking Him? We need Him—each one of us—as men and women in all ages have needed Him. Perhaps this time of world-wide peril and sorrow may bring the world, like a starving prodigal, into the joy and love of the Father's Home. The door is always wide open for His children. Browning writes:

"Remember what a martyr said
On the rude tablet overhead!
I was born sickly, poor and mean.

A slave: no misery could screen
The holders of the pearl of price
From Cæsar's envy; therefore twice
I fought with beasts, and three times

saw
My children suffer by his law,
At last my own release was earned:
I was some time in being burned,
But at the close a Hand came through
The fire above my head, and drew
My soul to Christ, Whom now I see.
Sergius, a brother, writes for me
This testimony on the wall—
For me, I have forgot it all."

Those who have made the Great Discovery are victorious, no matter what price they have paid for the Pearl of great price. When the three brave Hebrews preferred the fiery furnace to giving up their God, He walked with them through the fire. It is not strange to think of Christ in Flanders. He chose the place of greatest danger, long ago.
DORA FARNCOMB.

FOR THE QUIET HOUR.

Many gifts "for the needy" have been sent by our readers during the past week. Three donations of \$5.00 each, two of \$2.00, and one of a dollar, have been trusted in my care for distribution. Our ADVOCATE purse will scarcely close—it is so full—although five dollars of this new supply has already gone out, in the form of food and clothing, to several poor sick people.

It is a great privilege to be chosen as the almoner of so many generous givers; but it is a serious responsibility, too. I will try to do my share of the work faithfully, passing on your kindly help to those in need. I make it a strict rule never to spend your money without personal investigation. With many thanks.
Hope.

Fashions Dept.

HOW TO ORDER PATTERNS.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price ten cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, twenty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

When ordering, please use this form:—
Send the following pattern to:

Name.....
Post Office.....
County.....
Province.....
Number of pattern.....
Age (if child or misses' pattern).....
Measurement—Waist..... Bust.....
Date of issue in which pattern appeared.....



8307 Doll's Set,
18, 22 and 26 inches
high.



8370 Child's Coat, 6
mos., 1, 2 and 4 years.

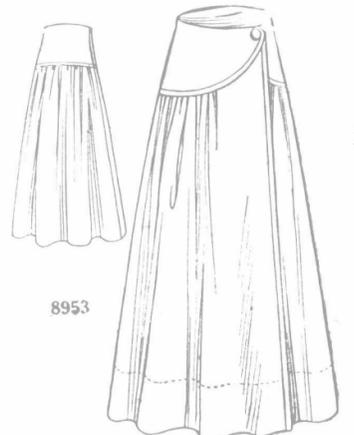


8942 (With Basting Line and Added Seam Allowance) Middy Blouse for Misses and Small Women, 16 and 18 years.

8750 (With Basting Line and Added Seam Allowance) Plaited Skirt for Misses and Small Women, 16 and 18 years.
With or without Yoke and Suspenders.



8963 Straight Skirt,
Small 24 or 26, Me-
dium 28 or 30, Large
32 or 34 waist.



8953 (With Basting Line and Added Seam Allowance) Gathered Skirt with Yoke, 24 to 30 waist.



8948 Skirt with Panel
Front, 24 to 34 waist.



8947 (With Basting Line and Added Seam Allowance) One-Piece Dress for Misses and Small Women, 16 and 18 years.



8954 (With Basting Line and Added Seam Allowance) Girl's Dress, 8 to 14 years.



8894 (With Basting Line and Added Seam Allowance) Dressing Jacket, 34 to 44 bust.
8620 Five Gored Petticoat, 24 to 34 waist.



8712 Gown with Dropped Shoulders, 34 to 42 bust.



8960 (With Basting Line and Added Seam Allowance) Girl's Coat Suit, 10 to 14 years.



8691 Two- or Three-Piece Skirt with Yoke, 24 to 32 waist.



8653 Waist in Military, 32 to 42 bust.



8898 (With Basting Line and Added Seam Allowance) One-Piece Gown, 34 to 46 bust.



8936 Girl's Dress, 8 to 12 years.



8690 Dressing Jacket, 34 to 44 bust.



8908 Child's Bishop Dress, 1, 2 and 4 years.



8701 Child's Dress, 4 to 8 years.



8674 Child's Box Plaited Dress, 4 to 8 years.



8903 Girl's Dress, 8 to 14 years.

WHICH WILL YOU BUY?



A "Cream Thief" or a "Savings Bank" Cream Separator?

WITH a great many machines or implements used on the farm it doesn't make much difference which of several makes you buy. One may give you a little better or longer service than another, but it's mostly a matter of individual preference, and often it makes little difference which one you choose.

Not so with buying a cream separator, however.

There is a big difference in cream separators.

The most wasteful machine on the farm is a cheap, inferior or half worn-out cream separator.

The most profitable machine on the farm is a DE LAVAL Cream Separator

A cream separator is used twice a day, 730 times a year, and if it wastes a little cream every time you use it it's a "cream thief," and an expensive machine even if you got it as a gift.

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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.]

What Our Readers are Thinking.

DEAR INGLE NOOK FRIENDS:—

A further number of letters on the subject of eternal punishment in a lake of fire for wrong doers on this earth-plane, have arrived. I select the following, by "Stroud", as the most emphatic, regarding "the new interpretation."

Dear Junia,—I was amazed at your news concerning the future life. I have not read the books you mention, but I have the Bible and it certainly speaks with no uncertain sound concerning the responsibility of all who have heard the Gospel.

Yes there are a few texts which might be construed to mean that punishment is eternal. For instance Paul says "There is no other name under heaven given among men whereby we must be saved." This of course refers to our Lord. Jesus himself in the Parable of The Virgins taught that the door was shut when the five foolish came; also the "Young ruler who went away sorrowful to his great possessions;" of the man who was cast "into outer darkness"—not a flame; of "The rich man and Lazarus", and the statement in St. John 3-18: Also read the last chapter of Revelation. I think Junia your trouble, like so many others, is that you prefer to read other books rather than to study the Bible and so have relapsed into a species of Hinduism.

God's love to man is fully shown in his giving up His Son to die for us. Where is the need of a Saviour in your theory? If we are able of ourselves to attain "Eternal Life" surely then God is indeed heartless before all else, when He could give up His son to such a death. Did you, Junia, ever study just what that death meant to Jesus and to us? I need not ask. You certainly have spent no time or open mind on that subject. Jesus preached to the spirits! Who were they? Not you or I or anyone who has had an opportunity to repent and believe. Where is it stated that God arbitrarily condemns?

Are we not rather to infer that failure to come to Christ condemns? It is just that we will not give up ourselves. Remember "the Judge of all the world will do right." Simcoe Co., Ont. STROUD.

I have no intention, Stroud, of launching out into an argument or any explanation in regard to all the points which you bring up. Arguing on a variety of subjects through a weekly periodical, especially when space is limited, is too slow a process. The one subject at issue is, "Is the word hell, as given in the Bible, to be taken as meaning a lake of literal fire, lasting to all eternity, as literalists still believe?" To this question I have already given my answer very frankly, and there is no necessity for repetition. I may, perhaps, point out that Dean Farrar in his books has explained in a very enlightening way, that in translating the Bible the translators made a mistake, using the word "eternal" where the word in the original really meant "lasting for an age or period". However you have a perfect right to think as you choose.

Here is a letter that takes a different view of the question under discussion:

Dear Madam,—Your recent short article in The Advocate on "eternal torment" appealed to me strongly as an expression of our "saver" ideas concerning this vexed question. A God of love and justice gives wise and just punishment assuredly, but a devil only would give "eternal torment."

Dean Farrar's "Wider Hope", helped me greatly years ago to free myself from this superstition of the Dark Ages. Years after I came upon another little book (which I am sending you by this same mail) which enabled me to get still clearer views from the standpoint of the Scriptures. I thought it would be of interest to you, if it does not prove especially helpful. It has helped me a great deal and when I get blessing from anything I like to pass it along. Trusting I have not trespassed too long on your valuable time,

I remain,
Victoria Co., Ont.

T. H.

I have read the greater part of the Bible Society book you sent me with much interest, and take the liberty of quoting the following selections:

"The word 'hell' occurs thirty-one times in the Old Testament, and in every instance it is *sheol* in the Hebrew. It does not mean a lake of fire and brimstone, nor anything at all resembling that thought, *not in the slightest degree!* Quite the reverse: instead of a place of blazing fire it is described in the context as a state of 'darkness' (Job 10:21) instead of a place where shrieks and groans are heard, it is described in the context as a place of 'silence' (Psa. 115:17.)

"The meaning of *sheol* is the hidden state, as applied to man's condition in death, in and beyond which all is hidden, except to the eye of faith; hence, by proper and close association, the word was often used in the sense of *grave*, the *tomb*, the hidden place, or place beyond which only those who have the enlightened eye of the understanding can see resurrection. And be it particularly noted that this identical word *sheol* is translated 'pit' and 'grave' thirty-four times in our common version by the *same* translators—more times than it is translated 'hell' and twice where it is translated 'hell' it seemed so absurd, according to the present accepted meaning of the English word 'hell', that, in the margin of modern Bibles, the publishers explain that it means *grave* (Isa. 14:9 and Jonah 2:2) In the latter case, the hidden state or *grave*, was the belly of the fish in which Jonah was buried alive, and from which he cried to God,"—another part of the Bible about which literalists and modernists have wrangled.

"In the New Testament, the Greek word *hades* corresponds exactly to the Hebrew word *sheol*. As proof see quotations of the Apostles from the Old Testament, in which they render it *hades*. For instance Acts 2:27, 'Thou wilt not leave my soul in *hades*, is a quotation from Psa. 16, 10: 'Thou wilt not leave my soul in *sheol*.'"

I find, in your book, that every instance in which the word "hell" appears is dealt with whether "sheol", "hades", "gehenna", or "tartaroo", in the original. The conclusion certainly seems reasonable that "The Jews gathered no such extreme idea from the Lord's words. The eternal torment theory was unknown to them... It is a comparatively modern invention." Perhaps there are a few to whom it is not known that the entire Bible was translated, by *men* some few hundred years ago, from the Hebrew and the Greek. At all events, whatever we believe, we must know that, in the natural order of things, all evil brings retribution. The suffering for evil always is, and must always be, intense, but it must also be reformative, else of what use? If not reformative, the suffering must be a mere wreaking of vengeance, just as an unthinking mother might slap a child when in a temper herself. We cannot think this of the All-Good.

I have been severely taken to task by a few for presuming to use my 'reason'. I cannot understand this point of view. It seems to me that "reason" is the greatest power God ever created, then why should He or we think it of no use? Are we not intended to use it more and more? I can assure these friends that a very great many people in the world are using their reason, and have no intention of giving up doing so. These are the people who are ever seeking more light, and the very ones who are willing to give up an old position just as soon as they find a better and sweeter one. Only so can people improve. For this was their reason given them.

However, I suppose this discussion might go on for a year, without convincing those who take an absolutely determined stand on either side. Those who believe in literal hell-fire have been given a fair chance to state their arguments; those who do not believe in it cannot; questioners in regard to the subject may choose between the two. But everyone has an absolute right to his or her opinion; this I concede absolutely.

Nothing would be gained by prolonging the argument further, and many letters on other subjects are being held out to make room for it, therefore the discussion is now closed.

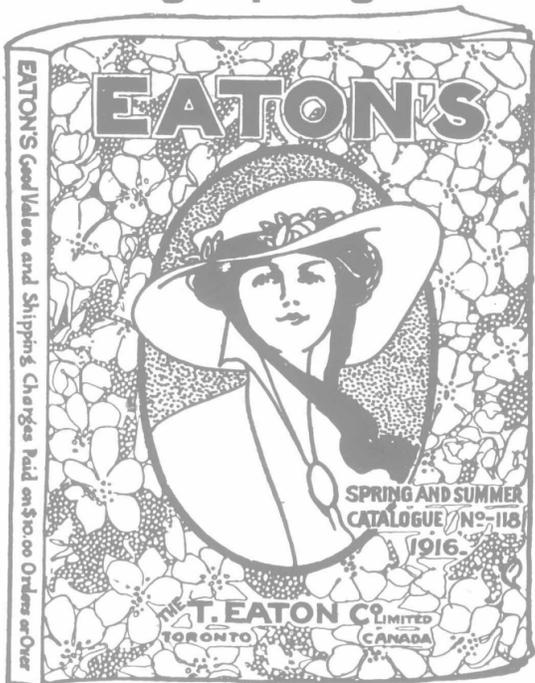
WHAT PER...

Junia's Sub...

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TORONTO - CANADA

WHAT PERSON WOULD YOU LIKE TO RESEMBLE?

Junia's Subject for Discussion No. 1, February 10.

The person I wish to resemble is myself, for I believe in distinctive, independent individuality. But I want this individuality to be the best type. I feel that initiative is better than imitation, yet that one may laudably imitate or emulate a great or good personality with the purpose of realizing or creating that personality in himself. This is only another way of saying that one may or must have an ideal. Then we gladly welcome every means that will help us

to reach that ideal. Have the desired type or character in view, then build for that, no matter what others may do.

The apostle Paul said: "I press toward the mark for the prize of my high calling." Great was Paul, yet humble, as every aspiring one must be. He called himself the "least of the apostles." He sat at the feet of Gamaliel to be taught, as I would gladly sit at his, for I believe Paul to be one of the greatest personalities that ever appeared on this planet. He possessed wondrous initiative and originality of mind, yet he had an ideal higher than himself—Jesus Christ. No man ever resembled himself more than St. Paul, yet he was ever aspiring, mounting higher, counting

himself as naught if he might but know and teach Truth. Humble life need not debar high thoughts or noble deeds. Paul, like his Master, toiled with his hands and lived a simple life.

John Ruskin wrote: "A good man gets good from all things and all persons." Such is my desire. I wish to assimilate the good wherever found. Were I to select a particular model among the noble and beautiful characters, Paul might take first place, though any one of thousands may be deemed an example. The list would include some of the ancients,—Plato, Socrates, Cicero, Seneca, and others, whose philosophy, however, is weak compared with that of Paul;—twilight in contrast with noon-

day. Among moderns—Shakespeare, Wordsworth, Browning, Tennyson, Longfellow, Emerson, Carlyle and Huxley may be named as worthy ideals. But while these are great each in his special field, Paul's greatness spans the whole: "The invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, even His eternal power and Godhead, Romans 1:20. Paul scaled the heights, he penetrated the abysses of creation, he saw the glory, he felt the might, he realized the harmonies and affinities, he bowed before the Infinite Majesty. The thinker of our era can mount to no grander horizon, can cast no deeper plummet, can speak no truer word. To

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HON. G. HOWARD FERGUSON, Minister of Lands, Forests and Mines.

rise to Paul's conception would be sufficient.

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

Your essay is very excellent and very suggestive, Mr. Way.—J.

A BUDGET OF REFLECTIONS

Dear Junia,—In beginning to write what one thinks about the war and the effect it will have on the world it seems hard to say anything that has not already been said because everybody talks so much about the war these times and the newspapers are filled with war news and the opinions of so many different people. One would wish it was all a bad dream from which we should waken and find the world as it was before.

It is causing so much suffering and so many people are mourning the loss of loved ones. To me this seems the hardest to bear, and the millions being spent every day, to carry on the war seem as nothing compared to the young lives that are sacrificed daily while the war lasts. Then so many happy homes are destroyed and their inhabitants driven into exile and sorrow. It seems to me, that there is nothing on earth so sweet as a happy home where loving kindness reigns, and so many of those homes that have been desolate can never be as they were before.

We in Canada cannot fully realize what war means, while we have not heard the sound of the guns nor seen the armies of the enemies destroying our homes and doing all the harm they can, as has been the case in many places. Notwithstanding all this I think the world will be a better place to live in after the war is over than it ever was before.

One hears a great deal these times about the "Brotherhood of man" and and we trust that we shall have more of that spirit in the days to come and that we all may try to give all we can to the world in every way possible instead of trying to see how much we can acquire for ourselves.

I think that the people who rise to eminence shall be there because of the good they do to humanity more than ever was the case before. After reading a piece in the Advocate, entitled, Pasteur versus Kaiser it would seem to be hardly worth while trying to attain to worldly power or great wealth. In the coming years Louis Pasteur will be remembered as one of the world's benefactors while the Kaiser will be remembered as a director of murder, without even the respect that is given the memory of the great Napoleon.

One would think that the power of Right is becoming stronger every day, and that the time is not far hence when, "Right not Might" shall rule the world.

If Germany wanted more territory, and we believe she brought on the war for that purpose, would it not have been better if the money that she spent on the war had been offered to some other country. It seems to me it would have bought more territory somewhere, than will be allowed to be held by Germany when the war is over; without the loss of millions of her best subjects. If all the countries engaged in the war had the money spent in carrying on the war, to be used in improving and beautifying their countries, what a beautiful world we should have. The world is realizing as never before what war really means, and we believe that when this war is settled, the nations will find some other way to settle their disputes, as has been the case for many years between Britain and the United States.

In our home life too, one thinks we would be better if we lived and dressed more simply, then we would have more time for better and greater things in life and so do our part towards making the world better.

It will be well if in our last years of life we can look back on the years that have gone and know that we have done our best. I will close this now with best wishes to you, Dear Junia, and all the Ingle Nook friends.

Yours sincerely,
Peterboro Co., ALLEN.

FROM "BACHELOR D."

I have been a reader of the "Advocate" for a number of years, and have found its pages from time to time very interesting and helpful, but somehow or other I failed to take anything more than an uninterested glance at the columns of the Ingle Nook. In venturing on giving some reason for this neglect, I would say that I thought this corner of



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A. C. HARDY, Brockville, Ontario

the "Advocate" was a privileged place for the gentle sex only, where they could make known their views in the discussion of various subjects relative to household duties, or otherwise, of little interest to men—especially confirmed bachelors. But, on looking over the last issue of the Advocate (Feb. 10th.) my attention was completely arrested by the very columns I had previously spurned, and I became as much absorbed in their contents, as a novel-reading girl would be in a splendid love story in which a bachelor figured well at first but finally got left—the reason why there are so many bachelors.

The sight of seeing these real bachelors inside of the "Ingle Nook" circle and how they ever gained admittance, staggered my imagination, and aroused within my very soul an unfamiliar curiosity "stranger than fiction"—to know what they were doing there and what they had to say. So you see the presence of these "Single tho' Happy" men in the Ingle Nook influenced still another to make a call and have his say. Well, I have this to say: That in my opinion, these bachelors took to the Ingle Nook with the idea of escaping military service by using it as a medium through which they might procure a life companion, therefore warding off conscription which may become a reality in case of single men or perhaps, with the idea of making their "Happy tho' single" life still happier. Is there not reason and sound logic in this?

Now, laying aside all humor, come bachelor friends and "let us reason together," and as a fair question: How do your views of nature harmonize with the "nature spirit" that permeates the letter of "Canadian Girl"? In answering the question for myself, I must say that with her nature spirit my nature spirit blends. Further, I must say that "Canadian Girl" is natural—a Child of Nature, free from paint or polish. Oh! "Nature the beautiful" exerts a great influence over me, and from which comes an inspiration that fills my heart with adoration and a higher conception of Him "with whom we have to do." "Canadian Girl" has hit the right trail, surely, in responding to the "Call of the Wilds," for there is a power in Nature to lift the drooping spirits, to strengthen a declining faith, to revive a withering hope, and to make our love more perfect.

The poet has put the question of nature-love in impressive lines thus:

"Who loves not the shady trees,
The smell of flowers and sound of brooks,
The song of birds and hum of bees,
Murmuring in green and fragrant nooks,
The voice of children in the spring,
Along the field paths wandering?"

And must be, at least, a gentle rebuke to those whose hearts are hard and very indifferent to the call of Nature.

Perhaps my letter of humorous sentiment—and, of course, seasoned just a little with common sense—is now altogether too long to find a place in the "Ingle Nook," so I will forego saying anything on the excellent subjects you have just passed out to your Ingle Nook friends for discussion. Will look forward to reading, with pleasure, the letters that follow in the discussion of the subjects referred to.

Wishing you every success in making the Ingle Nook an attractive place—so much so that even more of these confirmed old bachelors will be drawn from their monotonous old ruts—to seeking a place in the social life of the Ingle Nook.
BACHELOR D.

Some Household Topics.

Dear Junia,—I am really in your nook every week, although I have never written before, and am just like many others come for advice. Now that the days are getting longer I want to do some repairs for the spring cleaning. My spare-room is in need of new stand and dresser covers, and I do not know what to make or what is most used now. You always give such nice ideas I thought you could help me, as many others have been helped.

I wonder if you or any of the Nookers could tell me how to keep wool from coming through sateen when used as filling for comforters. I have made some and they are lovely, almost as nice as down, but the wool comes through when worn a little while. A friend told me to boil the wool before I carded it and it would not come through, so I tried that,



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The Spramotor won first prize in the Canadian Government Spraying Contest at Grimsby, Ontario, against eleven other makes. By actual percentage of loss in fruit over 80%. Used on potatoes a Spramotor has increased a yield of almost nothing to 400 bushels an acre. Think how quickly such a saving, or even a small fraction of such a saving, would pay for your Spramotor. The Spramotor is operated by hand, horse or gasoline engine; it can be had for as low as \$6 up to \$400. Send for and read our valuable and interesting book on crop diseases—mailed free. Made in Canada. No duty to pay.

B. H. HEARD SPRAMOTOR, 2730 King St., London, Can.

and still it works out. I was thinking of soaping the sateen, same as some do ticking for pillows, might be effectual. Would the soap fade the sateen?

The day of heavy quilts is over, and it is time, for how tired one feels in the morning after sleeping under a load of heavy bedding. I have been much interested in the replies to the subjects you gave for discussion. I think it was really a humane act of Dr. Haselden to let the Bollinger child die. What parent would want to see her child live in such a condition?

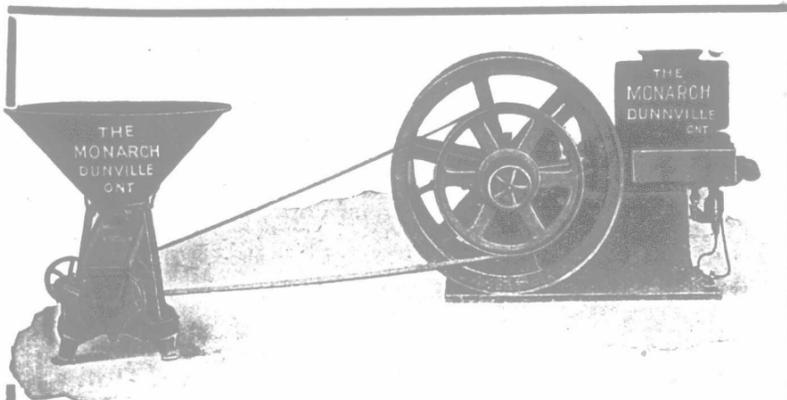
Thanking you in advance and wishing you and Hope long life and prosperity in your good work, which I do enjoy every week,

Simcoe Co., Ont. **MOTHER ISABEL.**

Nothing can be prettier than white linen for the covers, embroidered or trimmed with lace and insertion; but brown linen is often used and looks very nice. It may be trimmed with linen-

Only Fine, Flavoury Teas
are used to produce the famous
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blends. Every leaf is fresh, fragrant full of its natural deliciousness. Sold in sealed packets only. B 107



The above cut shows a No. 10 Monarch Grinder and 8 h.-p. Engine.

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can help you reduce the high cost of hired help.

It will solve the "hired man" problem, do the pumping, wood-sawing, grinding, fanning and cream separating.

All sizes in horizontal type, from 1 to 20 h.-p.

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colored lace or embroidered a little at each end with colored silks.

Can anyone answer the question in regard to comforters?

Some Tested Recipes.

(KINDLY SENT BY A MEMBER).

Dear Ingle Nook Friends,—It is a long time since I have written to the Nook, and I thought I would send you some tested recipes and ideas.

PUMPKIN PIE.—1½ cups cooked pumpkin, 2 eggs, 1 cup rich milk, 2 tablespoons melted butter, ½ teaspoon salt, ½ cup sugar, ½ tablespoon ginger, 1 teaspoon cinnamon, 1 teaspoon cocoa. Cook 25 minutes. For one pie. Put pie in hot oven without grate underneath it at first, then it will not be soggy on bottom. Test when done. Touch lightly with finger, and if nothing sticks, it is done. The pie made from this recipe took first at our Fall Fair.

GINGER SNAPS (without eggs)—One cup molasses, 1 cup brown sugar, 1 cup butter, 5 tablespoons warm water, 1 teaspoon soda, 1 large teaspoon ginger, ½ teaspoon cinnamon, 1 large teaspoon cocoa. Flour to make dough. I sometimes put two together with caramel or white icing. Turn pan upside down and snaps are not so apt to burn. I bake all cookies that way.

BRAN MUFFINS.—Two cups bran, 2 cups flour, 1 cup brown sugar, ¼ cup butter, 1 cup sour cream, 1 egg, 1 teaspoon soda, 1 teaspoon baking powder. Spices: ½ teaspoon ginger, ½ teaspoon cinnamon, ½ teaspoon cocoa. This will make one dozen.

OATMEAL BREAD.—One cup rolled oats, ½ Royal yeast cake, ½ cup molasses, bread flour, 1 teaspoon salt, 1 pint boiling water. After dinner—1.30 or 2 p.m.—pour the water over the oats, then set aside in a covered dish until lukewarm, then add molasses, the yeast cake dissolved in a little lukewarm water, and 1½ cups of bread flour. At 8 or 9 p.m. add salt and flour enough so as not to stick to hands; let rise over night. In morning push down, let rise again, then put in pan. Let rise again and bake. This makes two loaves. I sometimes put 1 cup of raisins.

CHERRY CAKE.—1½ cups butter, 2 cups white sugar, ½ cup milk, 5 eggs, 4½ cups pastry flour, ½ lb. candied cherries, 2 cups sultana raisins, 1 teaspoon baking powder, 1 teaspoon vanilla, 10 cts. of citron peel. Bake in a steady oven for about 2 hours.

DATE STICKS.—Three eggs, beat 10 minutes, 1 cup white sugar, 1 cup walnuts, 1 cup dates, chopped and floured, ¾ cup flour, 1 teaspoon powdered sugar, rounding, 1 teaspoon baking powder. Cut in pieces while hot and roll in powdered sugar or ice or frost.

TO CLEAN GLOVES.—Dip a flannel in fresh milk, then rub on some light-colored soap and rub lightly the soiled parts of gloves. Let dry on hands.

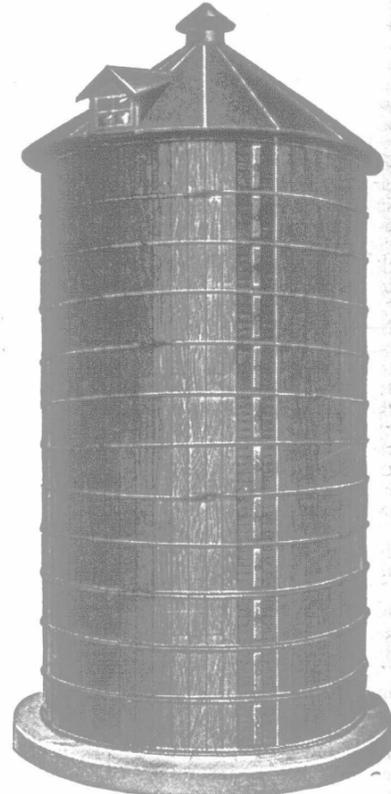
I often wonder how many farmers' wives use their dish drainers on the proper side of dish pan. It also applies to preparing apples, potatoes, or any of the vegetables. As I always have my dish cloth in right hand, I always have my drainer at left hand, and also pan for prepared vegetables, to save time and handling.

Dear Junia,—We hear and read so much about the dear little kiddies of the war zone. Can you tell me why they do not send some of them here? I am sure they would find good homes. I would love to have a little girl, myself about three or four years old, and I know of lots more that would. If I have written too much, just throw the paper away. We always look forward to the ADVOCATE. Wellington Co., Ont. FARMER'S WIFE.

One of our contributors who tried to get a Belgian child tells me that she could not because the Belgians are keeping them, for the most part, in Roman Catholic homes in England, intending to take them back to Belgium as soon as the war is over. I have not been able to find out anything, as yet, in regard to Serbian children, but will let you know as soon as any details are obtainable.

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All that its name implies



Be prepared against the invasions of drought and scarcity of fodder by building a Premier Perfect Silo. The result of eighteen years' experience. No modern farmer can afford to be without one. Write for catalogue "B," giving valuable information.

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Agents Wanted to sell rebuilt automobiles on installments. Pay while you ride. Write for agents' contract and illustrated catalog. Eureka Auto Co., Beavertown, Pa.

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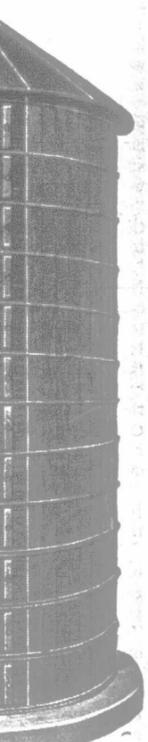
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If you desire, we will give you expert service in the selection of fertilizers. We have reports of tests and results given by different kinds of fertilizers used in various localities all over Canada. By combining your own practical experience with our scientific fertilizer knowledge, a record crop should result.

Harab-Davies Fertilizers have given splendid results all over Canada. They are strictly high-grade. No worthless filler whatever is put into these complete fertilizers. Every ingredient has a proved fertilizer value.

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With one or two pockets, made in regular or over size—Fit and workmanship guaranteed.

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

ROBERT MILLER, Stouffville, Ontario

News of the Week

The Provincial Government has determined to refer the question of prohibition in Ontario to the people as a referendum.

The Ontario Government is arranging for 15,000 high school boys to do farm work, hoping thus to relieve the serious condition due to lack of help.

Henry James, the noted novelist, died in London on Feb. 28th.

Queen-Mother Elizabeth, of Roumania, known by her writings as "Carman Sylva," died on March 2nd.

An agitation against King Ferdinand and Premier Radoslavoff is said to be brewing in Bulgaria.

The United States Senate, by a majority of 68 to 14, stood by President Wilson in his determination to secure the right of Americans to travel, unwarmed, on the high seas.

By the sinking of the French auxiliary cruiser "La Provence," torpedoed in the Mediterranean, 3,100 French troops lost their lives.

Great Britain is buying huge triplanes from the Curtiss Company to oppose Zeppelins.

There is a report abroad that both Turks and Bulgarians are asking peace terms from the Entente. The Turks are said to be removing the mines from the Dardanelles.

Eight British ships, with about 66 lives in all, were destroyed during the week, by mines and other causes, in the war zone.

During the week British aviators wrecked two zeppelins in Belgium, and a French aviator brought down a German "Albatross."

After a lull the Germans on March 2nd launched violent new attacks to the north and northeast of Verdun, and for days the battle raged, concentrating about the village of Douaumont, first taken by the Germans, then surrounded by the French. It is stated that the cannonading was incessant, and heard 188 miles away. Both sides have lost terribly, but, at time of going to press, the French lines still hold firm. In the meantime, to relieve the pressure on the French, the British struck a powerful blow southeast of Ypres, and recaptured nearly 800 yards of trenches. In Mesopotamia the Russians continue to advance victoriously, having taken Kermanshah and the important city of Bitlis, 110 miles south-east of Erzerum.

In Male Attire.

WOMEN WHO HAVE LIVED AS MEN.

By EDWIN L. ARNOLD, author of "Phra the Phœnician."

American law courts have lately been engaged settling a romance in which one of the chief incidents was the donning of male attire by a girl in order that she might the better make her way in the world. There was nothing very novel about the circumstances of this case, but it recalls some remarkable instances of the attraction which the habiliments of the other sex have had for many women in the past. Marie Le Roy, who passed for 20 years as Harry Lloyd, and Mrs. Elene Smith, who managed a large business house in New York for five years, and only lately confessed her sex in order that she might indulge in some scathing criticisms of American society in general, are instances which will be fresh in everyone's mind. There have been other and far more singular cases of this inclination.

WOMAN WHO BULLIED THE WAR OFFICE

There was the famous Dr. James Barry, for example. This individual, as anyone may see by referring to Hart's Army List for January, 1865, entered the army in that year as a hospital assistant, and passed through all the grades of the service till he became at length Inspector-general of Hospitals, fighting several duels during his career, making love to women, bullying the War Office of the time, no one doubting that he was a masterful and high-spirited man until "he" died, and it turned out that the fiery little doctor was after all a woman. What a life of repressed emotions it must have been—emotions which found no confidant even in the last hour!

Then there was poor Calamity Jane, the famous woman soldier and scout, who died at Deadwood, South Dakota, some time ago, wild, tempestuous, and untamed as she had lived. She was the original of Bret Hart's Cherokee Sal, and everyone who has read "The Luck of Roaring Camp,"—and who has not?—entertains a soft corner in his heart for that poor outcast of western civilization. Jane was one of the most picturesque characters ever known in the wild west. She appeared on the plains in the late sixties, young, handsome, and daring. Dressed in men's clothing, she served as a scout with the United States army during several Indian campaigns. During her career she took part in scores of battles with Indians and bloody affrays with desperadoes. In 1877 she overtook a stage-coach from Cheyenne just as a band of Indians had killed the driver. She mounted the box and drove the passengers safely into Deadwood. This was but a sample of the enterprises she delighted in. Jane spent all her life amongst riot and bloodshed, but there were two very tender spots in her nature. She loved the little daughter who came to her in her middle age better than the life she hazarded times out of number, and next to the child, in her fierce heart, stood her mare Bess. That horse was eventually shot by Indians in a border fight, and Jane made the Sioux pay heavily for it.

FOUGHT IN THE AMERICAN WARS.

Another woman who fought in the American wars in male attire was Madame Velasquez. This lady joined the American Confederate forces under the name of Lieutenant Harry Bulford before she was 21 years old. To disguise her tell-tale form she went to an old French army tailor in New Orleans, who knew enough about his own business not to bother too much about other people's and got him to make her a special undervest which filled in the lines of her waist and completely effected the purpose for which it was intended. Lieutenant Harry T. Bulford in due time had her heart's desire, "a hand in a great fight." She fought through the famous battle of Bull Run, and acquitted herself so well that she was complimented by her superior. She next decided to seek renown as a spy. Here she was confronted with a new difficulty. She had had to disguise herself as a man to get into the army; now she had to return to her womanhood to get out of it. In female gear she did eventually go over to the enemy, and after obtaining some important information madame returned and joyfully redonned her uniform, the Confederate officers, who had not the slightest idea that she was not a man, continuing to chaff her on her experiences in the hostile camp. At the fall of Fort Donaldso

The Dollar Chain

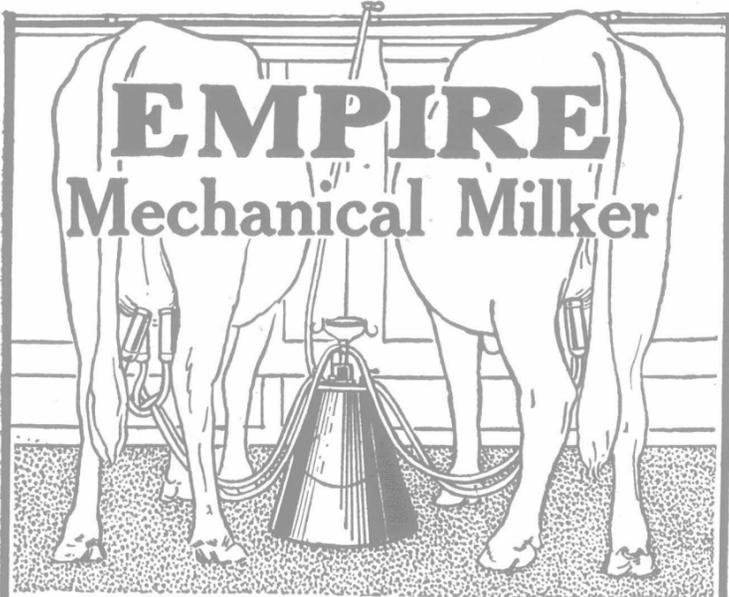
A fund maintained by readers of "The Farmer's Advocate and Home Magazine" for (1) Belgian Relief; (2) Soldiers' Comforts; (3) Red Cross Supplies.

Contributions from Feb. 25th to March 3rd: Edward Tye, Oregon, U. S., \$2.50; Jas. L. Watson, Walter's Falls, Ont., \$1.00; Mrs. Johnson, Bickford, Ont., \$5.00; "Scotia," London, Ont., \$1.00; Willie Armstrong, Gamebridge, Ont., \$1.00; J. W. Campbell, Rockwood, Ont., \$1.00; William Patton, Millgrove, Ont., \$5.00; A. Reader of the Advocate, Port Hope, Ont., \$10.00.

Amount previously acknowledged \$2,090.35
Total to March 3rd \$2,116.85

IF YOU CAN'T GO TO THE FRONT, GIVE.

Kindly address contributions to "The Farmer's Advocate and Home Magazine, London, Ont."



**Takes all the Drudgery out of Dairying—
Turns Wages Into Profits**

- Frees you from depending on hired help—**
- Makes it possible to keep more cows—**
- Milks them more Regularly and Uniformly—**
- Coaxes them to Let Down Milk more Freely—**
- Protects the Milk from Dirt, Germs and Odors**

What it Accomplishes

One man with one double or two-cow unit will milk 20 to 30 cows per hour—one man can operate two double units. An Empire Mechanical Milker will quickly pay for itself with even a very few cows. With one or two double units you can handle a good big herd alone, and do it quickly and easily.

The "Empire" so successfully imitates the action of a sucking calf that it is easier on the cows than hand milking, and usually gets more milk. Flowing directly through the tubing from the closed teat cups to closed pails, the milk is always protected from stable air, dirt and germs.

Thus, the "Empire" gets more and better milk, saves time and wages, and solves the serious problem of hired help.

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Each unit consists of a pail, a pail lid, teat cups complete with connections for air and milk, and a Pulsator. By means of this Pulsator, vacuum (suction) and atmospheric pressure are alternately applied to the linings of the teat cups, causing them to collapse and expand by turns, massaging the teats by the pressure, then drawing the milk in spurts by the suction. The instant it is drawn the milk flows into the closed pails.

Our literature about the Empire Mechanical Milker is of interest to owners of either large or small dairies. We will send it to you on request without any obligation to you. Just write us saying, "Please send me information about Empire Mechanical Milkers". Address Dept. C

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"Perfection Brand"

A Cocoa that is brimful of nourishment containing the beautiful aroma of the finest cocoa beans skillfully blended.

Years of experience in the cocoa trade has produced in our "Perfection" Brand the finest cocoa in the world.

As a liquid food its value is unsurpassed.

At a very small cost it may be bought anywhere — and remember it is the economical food to-day.



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1866 1916

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We pay railway freight on all orders \$25 or over in Ontario and Quebec.

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GOV'T. STANDARD	Bus.	SEED CORN.	Bags Free.
No. 1 Red Clover		1914 and 1915 growth.	Per bus. (70 lbs.) on cob.
Almost Extra No. 1 for Purity.....	\$17.00	Wisconsin No. 7.....	\$1.80
No. 1 Red Clover.....	16.15	Golden Glow.....	1.75
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No. 2 Timothy.....	5.25	OATS	Per bus.
Allow 30c. for each cotton bag required—Clover and Timothy.		O. A. C. No. 72 Oats.....	\$.85
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We have small quantity of Grimm or Variegated Alfalfa. Write for prices

GEO. KEITH & SONS SEEDS 124 KING ST. E. TORONTO

Lieutenant Bulford was severely wounded, and to escape awkward hospital inquiries deserted for a time. For many years afterwards she acted as spy or blockade runner with much success, until at last she fell to a more insidious enemy than any encountered before, and, dropping the soldier's blue tunic for the bridal robe, lived, we must hope, happily ever afterwards.

A SUCCESSFUL INNKEEPER.

Quite a pretty little romance enshrines the story of Mary East, another of these strange adventuresses. Mary was not of the bloodthirsty type; she went into disguise in tears, and wore it thereafter with unusual credit. Moreover, Mary was singular in the fact that she becomes a man less from the unkindness of a truant lover than from fear of the whole race. In 1872 she and a girl friend, both Londoners, decided that

the only way to escape from the importunities of the opposite sex was for one of them to join its ranks. They swore eternal fidelity, and, having, decided to live as man and wife, tossed up in the parlor of their little East End cottage for sex. The coin decided that Mary East should be the husband, and a few weeks after "Mr. and Mrs. How" invested all their small resources in the lease of a public-house at Epping. This town was then very popular with the London gallants. One of these took lodgings with the couple, and made such strenuous love to Mrs. How that a quarrel followed, her husband recovering £500 through the courts for the indignity he had suffered and damage that had been done to the reputation of his inn. Here was a fortune, and Mary was sufficiently a man in nature as in girl to know what to do with it.

The first tableau of the drama had shown the girls putting together their poor little hoard in the East End slums; the second displayed them gloating over such a pile of bank notes at Epping as they had never dreamed of before.

WHEN DEATH CAME.

For 34 years this happy couple lived together; then fate took away the wife. Poor Mary! History is silent as to her grief, but who can doubt the pathos of that third tableau, as she sat alone at the bedside in the night, hand in hand with her dead girl wife, brooding silently over those 34 years—their sorrows and happiness, their hair-breadth escapes, their emotions, and quaintly humorous successes.

When Mary turned to the world again there appeared a blackmailer on the scene who knew her secret, and coming one day

with two other ruffians he threatened to drag the girl to prison unless a heavy bribe or hush money was paid.

At this crisis a Mr. Williams appeared, an old friend of the Hows, who beat off the villain and rescued Mary at perhaps the most dangerous moment in all her varied experiences. He certainly ought to have married her later on, but does not appear to have done so. However, her sex was acknowledged shortly after this; perhaps she wearied of deception now that it could no longer protect her girl comrade. It is pleasant to be able to end one of the greatest romances of the kind by recording that Mary presently sold all her business, resumed her proper name, distributed half her property among her supposed wife's relatives, and on the other half lived in happy retirement, until she reached the age of 64. She left part of her fortune



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and music by the world's great bands are reproduced for you with a brilliant vividness and richness of tone that you will find nowhere but in Columbia Records. You are cordially invited to hear the following records, free, at any dealer in

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British Grenadiers; Cock o' the North;
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Prince's Orchestra, Ellery Band, St. Hilda Colliery Band, Municipal Band of Milan, etc., and thousands of splendid selections. Hear them at any Columbia dealer's. Get complete record list from him or write us for it.



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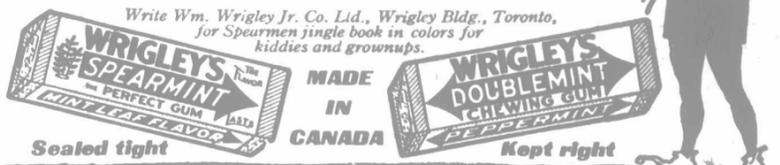
"Mother, have some

WRIGLEY'S

Doesn't it help the digestion wonderfully? I get rid of that stuffy feeling, after a hearty meal, in great shape. It's a blessing in the barn and in the fields too, when a fellow's thirsty and wants something to sweeten his mouth—something to **chew on**. It keeps the teeth clean, too."

"Yes, Will, it's a fine help in my hot housework—the cooling mint taste lasts so long!"

Two delicious flavors. Beneficial, economical.



to an old friend in the country, and the rest separated into annuities to her two servants, and an investment realizing £10 a year in perpetuity to the poor of Poplar, who to-day, without knowing it, benefit by the good luck of this gallant and consistent heroine.

A LESS FORTUNATE CASE.

That she had good luck was unquestionable. We appreciate this the more when we turn to the melancholy history of another woman who masqueraded in the same way, one more distinguished by birth and education, and apparently much better able to take advantage of the change of dress. Colley Cibber, poet laureate, Shakespearean scholar and actor, had several children, to whom he gave what was accounted a good education at the time. Of the respectable amongst them we know little—such is the irony of fate—but one, his daughter Charlotte, developed a wild and wayward spirit, and of her much is on record. Her father put her on the stage, where she achieved a fair degree of success, choosing by preference male parts, and showing a fondness for character which eventually led the young woman to give a no doubt delightful parody in public of her distinguished parent, an act which Colley Cibber took so much to heart that he disowned his undutiful child, never speaking to her again.

Then Charlotte, having married a singer named Charke, went from bad to worse. Leaving her husband the girl put on male garb and set out on

Horses Wanted

250 Pedigreed Clydesdale Mares and Fillies 250

Ages 2 to 6 years, must be thick set, good quality and condition. Will purchase mares in foal, and can also do with a number of good stallions 3 to 6 years of age. All stallions over 2 years of age must have proven themselves reasonably sure. Kindly communicate at once if you have any of above mentioned kind, as we are starting on a month's tour throughout Ontario.

State prices when writing, also best railway connections from Toronto and telephone exchange.

W. J. McCALLUM, Clydesdale Importer
Brampton, Ont. Long Distance Phone 114
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the stony road she followed in bitterness and shame to the day of her death. One Dr. Doran, who has written much about actors, says of her: "She starved with strollers, failed as a grocer in Long Acre, became bankrupt as a puppet show proprietor in St. James's street; then re-married and became a widow a second time; was plunged into deeper ruin; thrown into prison for debt; and only released by the subscriptions of the lowest, but not the least charitable, sisterhood of Drury Lane."

DOGGED BY DISASTER.

Every bid for fortune and success planned by Charlotte resulted in disaster. Her brother rescued her once from the mire, her uncle started the girl on the straight path anew, and every time she was helped she struggled for a time on the surface, then, like a ship in the clutches of a whirlpool, sank down out of sight again. Bankrupt, cheated, starving, the companion of outcasts and rogues, she nevertheless took disaster with so bold a front every

one was charmed with her pluck. On one occasion an heiress fell in love with her, and she was heartbroken when the woman told her secret. May I, alone amongst her historians, put this to Charlotte's credit? Think of the temptation. Cibber's daughter in her tawdry, swashbuckler finery, starving and hungry, then there enters the pretty heiress, willing to pawn all her wealth for a responsive look. Think of the hunger for ease and security that must have been in Charlotte's heart, think of the sloughs she had come through, the blackness that lay before her. A few hours' more deception, then—if the truth had to be told at last, she could have made her own terms. It was the turning-point of a stormy career, and the out-cast, at that moment, either fool, or as we prefer to think, heroine, deliberately chose the harder way and saved the heiress's future at the cost of her own.

After wandering about the country she at last came to London again, and set to work to write a history of her wanderings. "Cibber's erring and hapless daughter," writes Dr. Doran, "contrived at last to reach London, where in 1755 she published her remarkable autobiography, the details of which make the heart ache." The book brought in just enough to start her on another of those fruitless spells of respectability, and then, while Cibber was being buried with the honor of a poet laureate, his child lay starving in a miserable hovel in some waste grounds behind Islington. And there she died a few years later, her only

POULTRY AND EGGS

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

A FEW choice White Wyandotte cockerels at \$2.50 each. Order early! they won't last long at that price. W. B. Powell, Galt, Ont.

BEULAH Farm White Wyandottes have proven by their record to be the best laying strain in Canada. Storrs College record, 247, Missouri record 220. Hatching eggs from \$2 per setting, mailing list free. McLeod Bros., Box A, Stoney Creek, Ont.

BUY EGGS—For hatching from the money making kind of Barred Rocks, White Wyandottes and Buff Leghorns. Our selected breeding pens are from America's best laying strains and will produce strong healthy chicks of superior quality and pullets that will be early and persistent layers. Your order will have the benefit of our fifteen years' experience in poultry breeding. Eggs \$1.25 fifteen, \$6.50 hundred. Safe delivery and satisfaction guaranteed. Catalogue free. Charles Watson, Lonsdale, Ont.

BRAHMA, Partridge Rock Cockerels, \$2.00. Black Spanish, White Leghorn Cockerels, \$1.50. Trio of White Leghorns and Partridge Rocks (one male, two females) \$5.00. John Anneser, Tilbury, Ont.

CALIFORNIA Alfalfa fruit dairy and poultry farms for sale. Terms, write E. R. Waite, Shawnee, Oklahoma.

DOL-MAGE White Rocks—Eggs from our heavy laying utility strains, \$3 per 15. McConnell & Ferguson, P.O. Box 505, London, Ontario.

FOR sale—Toulouse geese, five dollars per pair or three dollars each. Also R. I. Red cockerels and pullets, two dollars each, they are fine S. C. and R. C. Sam Holmes, Box 2, Chatham, Ontario.

HIGH Grade Barred Rock cockerels. Correspondence invited. Prices right. Leslie Kerns, Freeman, Ont.

LOOK! Single-Comb Brown Leghorn and Barred Rock cockerels at \$1. They are beautiful, large birds. Also eggs. Thomas Eyres, Cameron, Ont.

LAYING strain Barred Rocks, Cockerels, two dollars, pullets one-fifty each. Rouen drakes, two dollars. Central Poultry Yards, Colborne, Ont.

MAMMOTH Bronze Turkeys bred from prize stock. R. G. Rose Glanworth, Ont.

MAMMOTH Bronze turkeys for sale, bred from prize-winning stock, heavy weights. Angus Beattie, Wilton Grove, Ont. R. R. No. 1.

ROSE-COMB Brown Leghorns and Black Orpingtons from our prize-winners. Leghorns won 3 cups, 11 firsts at three shows. Choice cockerels and pullets same breeding for sale. Price right. Orpington eggs from two pens, just as good, not showed this season, \$2 and \$2.50. English & Galloway, Ingersoll, Ont.

REGAL White Wyandottes, Champion winners, New York State Fair, ten years in succession. Big, vigorous, snow-white cockerels, \$2, \$3 and \$5, each bred from heavy laying females. Pullets, \$2 and \$3 each. Eggs \$3 per setting. Satisfaction guaranteed. Send for catalogue. John S. Martin, Drawer F, Port Dover, Canada.

SINGLE-COMB White Leghorns "Roseheart Strain" of beauty and utility, bred-to-day. Eggs one-fifty per fifteen, \$7 per hundred. Chicks fifteen dollars per hundred. Fertility and live chicks guaranteed. Roseheart Poultry Farm, Richmond Hill, Ont.

TRAP-NESTED White Leghorns. Certified egg record with every bird. Eggs, chicks, for sale. Welland View Poultry Farm, Welland, Ont.

WHITE WYANDOTTES. Four out of sixteen beautiful cockerels left—for sale. F.W. Read, Sydenham, Ont.

WHITE Leghorn Cockerels of the celebrated Tom Barron strain, sires' mother laid 226 eggs in year; two dollars fifty each; also hatching eggs at one dollar setting from same strain. Richd Trowhill, 335 Victoria St., London, Ont.

Free to stockmen and poultrymen, our 80 page illustrated booklet on feeding; how to construct a house which will accommodate 100 hens; gives dimensions, and measurements of every piece of lumber required. Deals with the common diseases of stock and poultry, and the remedies. Tells how to cure roup in four days. Contains full information about Royal Purple Stock and Poultry foods and remedies.

THE W. A. JENKINS MFG. CO. London, Canada

\$7.00 for this Collins Natural Incubator. Has the biggest percentage of eggs. Money back if you don't like it. Write today for catalogue. G. W. Collins, 417 Symington Ave., Toronto.



Seed Barley

Hull-less black barley, a splendid yielder and no hull, great food, \$1.00 per bushel, here bags extra. Only a limited quantity. Sample sent.

M. G. Ransford, Clinton, Ont.

Rack-cured Seed Corn. All varieties. Write us before placing your order for seed corn. We have quantity and quality. Our Seed Corn is all hand-selected and thoroughly rack-cured.

ST. JOACHIM CORN GROWERS' CLUB, St. Joachim, Ont.

companions an old hag, a cat, a dog, and a magpie, her only recreation writing a novel, with a pair of bellows held on her knee in default of a table! Poor, unhappy girl, what novelist ever before brought such teeming experiences to so humble a desk?

A TALBOT.

This was not the only young person of good extraction who had strange adventures in male attire. Mary Ann Talbot, a natural daughter of an Earl of Talbot, seems to have inherited much of the spirit of that famous family. Indeed, for sheer downright adventure, for pluck, persistence, and all the qualities which go to make the typical heroine in borrowed plumage, it may be doubted if she had any peer. Her father, dying, when she was still a child, left a sum of money for her maintenance, and put her in the hands of one whom he doubtless looked upon as a trustworthy guardian. But the guardian proved false, the money was misapplied, and at the age of 14 poor Mary Ann had drifted into the keeping of a worthless Captain Bowen, who took her to London, and thence, disguised as a page, with him and his regiment to the West Indies. Then the captain was ordered back to Europe on active service, and gave Mary the alternative of being sold as a slave or putting on a drummer boy's uniform and following his fortunes to the war. What was the girl to do? There could be no question. She chose the line of least resistance, and drummed the King's troops to battle, and drugged for the Captain for many months.

At the siege of Valenciennes she received two wounds, and, herein illustrating her Spartan pluck, sooner than go to hospital and acknowledge the secret so successfully guarded hitherto, she actually endured a musket ball wound in her breast and a sword cut across the shoulder without a whisper to anyone, curing herself with stolen lint and salves. It is doubtful whether even a Talbot ever did a harder thing than that.

Then came a picturesque incident. The false Captain was killed in the next attack on the town, and at dead of night the luckless maid—shamed, despondent, unsexed, "tossed about in the storms and bullets of the world," albeit she was even yet hardly 20—went out to search for his body. She found it, with what emotions can be easily imagined, and securing the soldier's keys returned to his tent, discovering and reading there by lantern light a packet of letters which gave her the half-forgotten story of her birth, and disclosed the fact that Captain Bowen all through their adventures had been receiving the money her father left and using it himself.

The discovery does not seem to have done Mary much good. Probably the love of roving had entered into her soul, for no use was made of this chance to return to an orthodox life. Instead, we find the girl slipping away from the regiment. Possibly she hated it, and the life there too much to stay, and dropping the scarlet tunic only to put on a sailor's blue one. Then, wandering across Europe on foot, Mary eventually got to the coast, and entered into negotiations with an honest-looking skipper, who wanted just such a cabin boy as herself. Poor, foolish descendant of a hundred earls, all her adventures had not taught her caution.

CABIN BOY PIRATE.

Mary signed articles and went gaily on board the French lugger, sure at last there was a peaceful time ahead and a chance of seeing the world in a reasonable way. She was soon undeceived. No sooner was the French coast out of sight than the lugger hoisted the "Jolly Rodger" and blossomed into a full-blown pirate! For several months they swaggered and plundered up and down the Channel, and then one fine morning the privateer was cornered by Lord Howe, that terror of evil-doers, captured after a fight, and taken in tow to England. Mary got an audience with the dreaded admiral in his cabin, a pretty subject for a picture, and saved her neck by explaining with many tears that she was a poor English sailor boy who had shipped quite honestly, and never meant to be a pirate. The great admiral believed the story, slapped the lad kindly on the back, told him to dry

up his tears, and eventually put him on board the Brunswick as a powder-monkey.

How Fate and Mary must have smiled at his simplicity. Wounded again by grape-shot, the powder-monkey spent some time in hospital at Spithead without her secret being discovered; then went to sea anew; was captured by the French, and lay in prison at Dunkirk for a year and a half. She escaped, was recaptured, and eventually turned loose into the streets of the French town.

Shipping on board a merchant vessel—this time an honest one—as cabin boy, the adventuress went to New York with the owner, Captain Field, and was taken into his family as a valet. Here Captain Field's daughter fell wildly in love with the attractive young man, and the captain complicated matters by smiling on the match and begging "James Taylor" to marry his child. When the time came for James to sail again the daughter had hysterics, the comely steward being fetched back twice from the ship to comfort her, and it was only after a solemn promise of returning at the earliest possible moment that he was eventually allowed to depart.

SEIZED BY THE PRESS GANG.

Landing in England, Mary Talbot, still pursued by fate was seized by a press gang, and, to escape another long term of service afloat, acknowledged her sex. Then she turned highway man; but, courage failing her at the first bout, deserted the companion she had chosen, and, feeling by this time, perhaps, that there were certain charms in a quiet life ashore, put on female dress, and, joining a dramatic company, spent the rest of life in recounting her manifold adventures to delighted London audiences.

Amongst other masqueraders whose history is on record, Hannah Snell may be mentioned. In her case a romantic attachment to a worthless husband caused a change of attire, Hannah spending a good part of her life roaming about the world, at one time a sailor and then a soldier, looking for the rogue, whom she eventually heard had committed a murder at Genoa, and had been put in a weighted sack and tossed into the sea there by an infuriated mob. "Molly Gray," as her companions on board ship called her, on account of a beardless face, never married again, and in the end, alas! died in Bedlam. She went through all the usual changes of a humble heroine in her circumstances, keeping a public-house, "The Widow in Masquerade," and retelling her adventures on the stage towards the latter part of life. Like Mary Ann Talbot, she hid a serious wound, received in the storming of Pondicherry, from all save an old negress, who helped with her fingers to force the bullet out of her body, they having no surgical instruments at command! Truly, these damsels errant were made of stuff which would have done credit to happier circumstances.

For Sale 20 bus. Ontario grown Alfalfa Grade No. 2 500 bus. O. A. C. No. 72. Oats at 75c. per bus. Bags 25c. extra. W. H. BRADSHAW, R. R. No. 1, Canfield, Ont.

For Sale Improved yelloweye bean seed, \$4 per bus. bags free. R. D. FERGUSON, Port Stanley, R. R. No. 2

Avonhurst Yorkshires and Gollies. We are offering young pigs either sex, Feb. farrowed from a litter of 21, of which 19 are raised. These are choice pigs of the best breeding. We guarantee satisfaction. B. Armstrong & Son, Codrington, Ont.

Seed Oats For Sale—O. A. C. No. 72, free from wild oats and noxious weeds. Heavy yielder, good strong straw. Price \$1.00, bags extra. TOOLE BROS., Mount Albert, Ont.

For Sale A quantity of O. A. C. No. 72 Oats guaranteed free from all noxious weeds. Won prize for two years in field competitions. Grown from prize oats, germinate 100 per cent. Price on application. SAM G. CARR, R. R. No. 2, Paris, Ont.

O. A. C. 72 and reg. Banner oats, and O. A. C. 21 Barley for sale. Out of 1st prize standing crop, and grown from 1st prize seed. GEO. D. FLETCHER, R. R. 1, Erin, Ont.

O. A. C. No. 72 Oats Pure, clean seed, by Govt. test. Free from snout, re-cleaned twice. Price \$1.00 per bushel. Cotton bago 25 cents extra. W. C. SHEARER, Bright, Ont.

A twist of the wrist trims the roll

PAPER YOUR HOME

"Empire" Salvage Trimmed Wall-Paper overcomes the great difficulty of papering. The whole selvage or edge is removed from the roll by a simple twist of the wrist, and the paper is ready to hang. It leaves a perfect, clean cut edge for matching. It means better and cleaner work in less time. It costs no more than the old kind. There is an "Empire" agent in nearly every town in Canada. If your decorator cannot show you "Empire" samples, write us for our large sample book of new designs and wonderful values. It is free. Postpaid. 22

Write Plainly

In sending for FREE book showing 160 newest styles and colorings, write your name very plainly and give full address.

The EMPIRE WALLPAPER Co. Ltd.
Montreal TORONTO Winnipeg



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.

FOR-SALE—187 acres, 20 sugar bush, unfailing wells, windmills, splendid farm buildings, water in stables, litter carrier, etc.; adjoins village. Price \$11,000. Mrs. J. M. Lochhead, Centreville, Addington County, Ontario.

FARMER Wanted—young married man preferred. Capable of taking full charge of 100 acre farm. 100 acres under cultivation. Yearly engagement. Give age, reference, salary, etc. Apply: M. Rothschild, Cochrane, Ontario.

FOR SALE—160 acres black clay loam, well timbered, 40 acres white spruce, balance mixed timber. 3/4 of mile from station, school and post office. 5 miles from Cochrane, New Ontario, for full particulars. Address: Mrs. D. McFarland, R. R. No. 2, Pembroke, Ont.

MARRIED Man wanted to handle farm and live stock. House, fuel, garden, etc. provided. Apply to Box 25, Petrolia, Ont.

MAN to work around small place in London. Yearly employment and good wages to right man. Apply: M. M. Ferguson, Box 505, London.

ONTARIO Agricultural College strain of bred-to-day Barred Plymouth Rock eggs, \$1.50 per 15. J. P. Hales, Ontario Agricultural College, Guelph, Ontario.

WANTED—2 first-class single men for general farm work, good wages and board. Commence work immediately. Wm. Manning & Sons Woodville.

WANTED to purchase, cheese factory within one hundred miles east of Toronto. Must have good shipping facilities. State full particulars. Box E, Farmer's Advocate, Toronto.

WANTED—Competent Woman for House Work, mile from town. Two in family companionable. Box 304, Paris, Ont.

PATENTS AND LEGAL BROTHERSTONHAUGH & CO., PATENT SOLICITORS—The Old Established Firm, Head Office, Royal Bank Building, Toronto, and 5 Elgin St., Ottawa, and other principal cities.

Wanted Custom Tanning. Horse hides and cattle hides for robes and coats. Also all kinds of skins and furs. Send them to me and have them tanned soft and pliable. Address: B. F. BELL, Delhi, Ont.

O. A. C. No. 72 Oats, Alsike No. 1. Grown from prize-winning seed under rules of C. S. G. A. Oats are clean, plump, free of wild oats and noxious weeds. Govt. Inspector allowed 94 3/4 score and reports general conditions of farm first-class. Alsike almost Extra No. 1, won 3rd prize at Guelph. Samples and prices on request. Oscar Klopp, Huron, Ont.

ELECTRICAL COURSE—on power and lighting systems, etc., short, simple, and practical. Write Canadian Correspondence College, Limited, Dept. E. E. Toronto, Canada

Seed Corn—1st prize-winning Wisconsin No. 7 and Longfellow, the best for the silo. GEORGE R. WEST & SONS Northwood, R.R. No. 3, Ontario

The Windrow.

There are now 2,834 munitions' plants going full blast in Great Britain.

Sir George Paish, one of the most eminent economists in Europe, says that the war is now costing \$70,000,000 a day.

The Audubon Society of the United States is carrying out a plan to convert all cemeteries into sanctuaries for birds.

It is proposed that the new Federal Capital of Australia, for which the name Canberra had been selected, be called Anzac, in commemoration of the famous landing of the Australians and New Zealanders on the Gallipoli Peninsula. The word was coined from the initials of "Australia and New Zealand Army Corps." The Australian capital, it will be remembered, is to be built throughout according to a plan.

Since the Russo-Japanese war Japan has prospered so that August, 1914, found her with a gold reserve of a quarter billion dollars. Since then she has gone forward more rapidly still, making rapid progress in many manufactures, in commerce and ship-building.

A malady called "trench-foot," caused by standing in cold mud and slush, is causing much trouble to soldiers along the lines. To prevent it, waterproof silk bags, to be worn inside the boot, are recommended by a French physician.

Flexible and supple artificial noses, tinted by paint and held in position by an invisible mastic, are being supplied in Europe to soldiers whose faces have been mutilated. Lips are supplied by clever grafting.

A new French aeroplane is practically invisible. The body and framework are constructed, as in ordinary machines, of aluminium, braced with wire. Over the framework is stretched a transparent material called "cellon"

CALDWELL'S

You Believe in Right Feeding Send This In!

It will pay you to know all about these famous lines, that are Government-guaranteed and used by the biggest men in the business.

- "Caldwell's" Molasses Meal
- "Caldwell's" Molasses Horse Feed
- "Caldwell's" Alfalfa and Molasses Horse Feed
- "Caldwell's" Molasses Dairy Meal
- "Caldwell's" Dry Dairy Meal
- "Caldwell's" Cream Substitute Calf Meal
- "Caldwell's" Poultry Laying Meal
- "Caldwell's" Poultry Scratch Feed
- "Caldwell's" Chick Feed
- "Caldwell's" Growing Mash
- "Caldwell's" Developing Feed

Mark tick in squares opposite feeds you are interested in, tear out this ad., sign your name and address, and send it to us. This puts you under no obligation. By return mail you will receive some profitable booklets, free. Do it to-day!

Name.....
Address.....

THE CALDWELL FEED & CEREAL CO., Ltd., Dundas, Ont.
MAKERS OF ALL KINDS OF HIGH-CLASS

STANDARD FEEDS

which does not crack or splinter, while the wings also are transparent. At a height of 3,000 feet the aeroplane becomes an indistinct blur; at 6,000 feet it is absolutely lost to sight.

One of the achievements of Canadian engineers at the front in Belgium has been the building of a railway which runs just behind the front line trench. The rails have a 2 foot gauge, and a 7 foot gasoline engine draws cars which stand above the rail only 3 1/2 feet. In the night trains run along the track bearing food, munitions, and everything needed in the trenches. When a German flare lights up the sky the train becomes immovable, and as the engine and cars are painted the same color as the ground there is little chance of their being seen.

Suits Free!

Remarkable Cloth that Won't Wear Out!
Now readers, would you like a suit or pair of pants absolutely free! A most astounding offer is being made by a well-known English firm! They have discovered a remarkable Holeproof Cloth. You can't tear it! Yet it looks just the same as \$20 suiting. You can't wear it out no matter how hard you wear it, for if during six months of solid, hard grinding work every day of the week (not just Sundays), you wear the smallest hole, another garment will be given free! The firm will send a written guarantee in every parcel. Think readers just \$6.50 for a man's suit and only \$2.25 for a pair of pants sent to you all charges and postage paid and guarantee for six months' solid grinding wear. Now, don't think because you are miles away you cannot test these remarkable cloths, for you simply send a 2-cent post card to The Holeproof Clothing Co., 56 Theobalds Road, London, W.C., Eng., for large range of patterns, easy self-measure chart and fashions. These are absolutely free, and postage paid. Send 2-cent postal card at once! Mention "The Advocate."



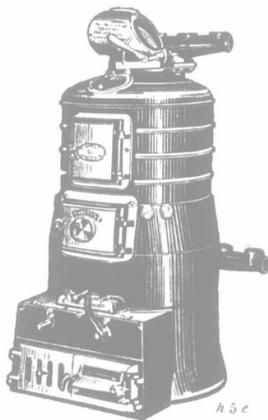
Why do so many farmers put up with this wretched kind of heating? You can save health, money, comfort---the family unity---with GURNEY-OXFORD HOT WATER HEATING

Look over your own lifetime and the experiences of your neighbors. Is it any wonder that the young folk, and the hired help, wanted to leave for the city---with the farm home cheerless and deathly-cold for month after month in the winter? There is certainly no excuse NOW for a badly heated farm home, with Gurney-Oxford Hot Water Heating a tried and proven success in hundreds of country houses.

What Does Hot Water Heating Mean?

It means a Gurney-Oxford Hot Water Boiler, the most scientific and economical in the market, generally placed in the cellar, and connected by pipes with radiators all through the house. The one fire in the boiler supplies all the heat needed, no matter what the size of the house may be, by keeping the hot water circulating all through the system. Only one fire to look after---no coal-dirt, ashes and dust in any of the living rooms. Gurney-Oxford Hot Water Heating lessens labor, takes less fuel and makes farm-life worth living.

You certainly don't need running water in the house. All you do is put a few buckets of water into the pipes and radiators in the Fall and the same water lasts for months and months. The Gurney-Oxford "Economizer," a wonderful draft-controlling, patented device which goes with our Boilers, enables anyone, even a boy or girl, to regulate the heat to suit the temperature outdoors. You get a beautiful, even, natural kind of heat from hot water that does not dry out the air and is very easy on fuel.



70 YEARS OF SUCCESS

A Gurney-Oxford Hot Water outfit greatly increases the value of your home should you ever want to sell. It is a permanent improvement. It makes your home cosy and comfortable---the envy of your neighbors. It can be installed in your present house with little trouble.

Our Booklet Explains

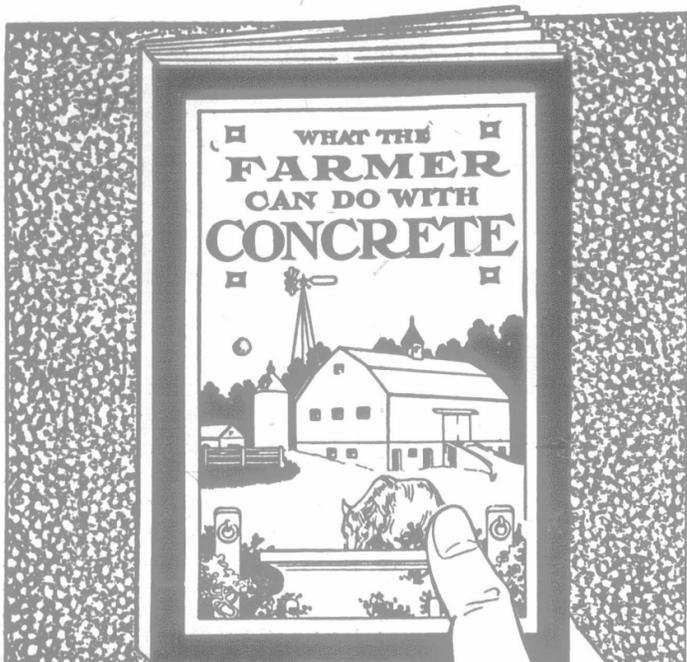
Our new booklet, "City Comfort for Country Homes," explains our system of heating by hot water and gives pictures of homes, with letters from many satisfied users. Write us to-day for a copy. A post card will do. Address: Det. 25



The Gurney-Oxford Boiler, pipes, valves and fittings for a house like this, with 500 feet of radiation, costs \$375.00 F.O.B. Toronto. At this price any reputable fitter can supply the materials, the labor and freight being moderate extras

Gurney Foundry Co., Limited

476-534 West King Street, Toronto
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This Valuable Book FREE

It's not a catalogue but a book of information—brim full of valuable, money-saving facts for the farmer.

It tells how to construct fire-proof, weather-proof, wear-proof buildings and other farm improvements of indestructible concrete—the most economical of all building materials.

It is the same book that has saved time, labor and money for more than 75,000 progressive Canadian farmers. Let it save money for you.

Clip the coupon below. Fill in your name and address and mail to-day.

Canada Cement Company Limited,
Herald Building,
MONTREAL.

CUT OUT AND MAIL

CANADA CEMENT COMPANY LIMITED, Herald Building, MONTREAL.
753 Gentlemen—Please send me a free copy of "What the Farmer can do with Concrete". 9

Name _____

Street and No. _____

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High Yielding SEED CORN

Grown and Offered by
ESSEX COUNTY SEED FARMS, LIMITED

This farm consisting of 1,000 acres was purchased some years ago for the exclusive purpose of producing High-Yielding Seed. Our motto, "Larger yields for the farm." We have not only given our customers corn that will yield but seed that will grow and will grow a strong rugged plant. The location of our farms ensures even in unfavorable years like 1915 early maturity. Our seed is mature when harvested. It is cured in drying houses built exclusively for the purpose. It is tested before shipment. Our guarantee goes with it. Write for circular.

G. R. COTTRELL, President
A. McKENNEY, Superintendent AMHERSTBURG, ONTARIO

Prohibition Pays.

In a recent speech the Hon. Arthur Capper, Governor of the State of Kansas, made, among others, the following statements, which should convince anyone that prohibition is financially, as well as morally, a good thing for a country. Here is what he says:

"We are a fortunate commonwealth. Our per capita wealth of \$1,630 is greater than that of any other State, and twice as high as that of the United States as a whole. It gives us a total of nearly three billion dollars of taxable wealth—an increase of \$79,000,000 the past year—and enables us to maintain a State tax rate of \$1.25 on a thousand—lower than that of any other State with one exception. . . . The prosperity of Kansas is shown in many ways. Our bank deposits of \$224,110,576 are the largest per capita of any State—an increase of \$23,000,000 in the year 1915.

"We have enrolled in our colleges 27,000 students—the largest college attendance in proportion to population in any State.

"Yes; Kansas is a prosperous State, but there are some things which we do not have. More than half a million of our boys and girls never saw an open bar-room; we have only thirty-four women in Kansas State prison; we send only about two-fifths as many men to jail per thousand as does the nation as a whole; we have a great scarcity of poor farms and paupers; we don't have nearly so many funerals as do other States, our death rate being extremely low; we have fewer tenants and more home-owners in proportion to population; and we drink very little booze. I think you will agree with me that Kansas is all right."

Even the brewers, he says, pay tribute to the prosperity of the State in their investments. "The brewery interests proclaim to the world that Kansas is on the highway to financial ruin, but at the same time they invest their surplus in Kansas municipal bonds. They buy them because they know that sober Kansas pays its debts, and its bonds are worth more than 100 cents on the dollar."

On Conscription in Canada.

EDITOR "THE FARMER'S ADVOCATE":

As a reader of your valuable paper, I am much interested in the articles on Conscription in Canada, in the issue of Feb. 24. R. S. Sutton seems to slight Peter McArthur for being serious. Why should he not be, when the war is taking the very best manhood we have? Any person capable of reason could not help but agree with the reasonable statements made in his article, Jan. 13, in regard to the wastage from rural districts. Is not this a vital problem and one worthy of serious consideration?

This correspondent also makes the statement that Germany is fighting for its life. Is it not rather fighting to take the life of others, and to gain world supremacy?

Mrs. Arthur Remington "believes they should all go." Re her remark as to the brutal treatment British soldiers are receiving in Germany as prisoners of war. On the supposition that all eligible Canadians should enlist, what present help or relief would this afford the prisoners? Mrs. Remington makes the scathing remark: that "the rural population has suddenly become terribly interested in production." Why should they not be? Has not the government persistently urged this upon them?

What kind of a world would this be if all the fit men should go to the firing line? I suppose there would then be a monopoly of women at home. Are all women as capable of running a farm as this woman claims to be? Which is of greater value, the man in the town with a "few sticks of furniture," or the man producing food for all? However, if all women were as efficient as Mrs. Remington it perhaps would be best to keep the men on the firing line. Her positive statement that Providence provides equally for all is not borne out by the facts of real life. Kent Co., Ont. EDWARD WAY.

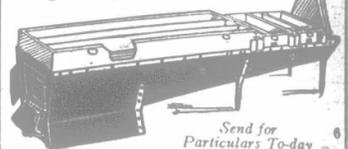
Make your Maple Trees Produce a Profit

Never before has there been such a fine opportunity to earn big profits from your maple trees.

The supply of pure maple products is far behind the demand. This means higher prices and a market ready to take all that you can produce.

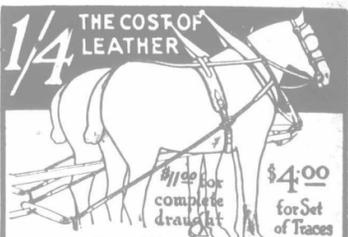
Get ready now for spring tapping. Select the necessary equipment as soon as possible. In the meantime write for our free circular which illustrates and describes how you can make the finest grade of syrup and sugar—quicker, easier and at a lower cost—by using

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You can figure this up on your spring overhauling of heavy work harness. GRIFFITH'S Giant Rope Traces stand between you and the big jump in leather—and they are stronger. Your complete draught at \$111! It's like finding \$10 or \$12. Giant Traces at \$41 Complete with malleable ends and electric-weld heel chains, and all charges paid (\$4.50 west of Fort William).

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Have your dealer show you these outfits. If he hasn't any in stock, write us. But make sure you get them. Mention this paper and we will send you a list of other money savers. G. L. GRIFFITH & SON, 68 Waterloo St., Stratford.



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Questions and Answers.

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

Miscellaneous.

Land for Corn.

We have two pieces of land for corn—one oat stubble with some little couch grass ploughed last fall, which will need some little working to prepare for corn—the other a clover sod, a good, strong plant on which we had a good crop of hay 1915. The second crop grew up well, and so thick as to blossom, promised a big crop of seed. It was a failure as to seed. The weather was very wet, and the work behind, so we let the crop remain on the land. This also has some couch grass, and has not been ploughed. Which would you advise, to plough the sod land a good depth with skim coulters, thus covering sod three inches deep, roll and work surface well to get a good seed bed and plant corn in hills 40 inches apart, or work the stubble land and clean it before planting the corn? We have manure for both fields.

We grow about 10 or 12 acres yearly for silo, and have done the last 15 years. There is not a large quantity grown in this district, and we have not the opportunity of seeing how corn cultivation is carried on, as in the corn districts. We have been fairly successful with our crop and would not do without it.

"MUSKOKA FARMER."

Ans.—We would advise our correspondent to read the article entitled "Growing Corn for Silage Purposes in Ontario," which appeared in our issue of Feb. 24. We prefer sod land for the corn, and from the question would think the corn would do well on this sod, provided the couch grass is kept in check.

Probably Grub in Head.

My sheep appear to have some trouble. I have lost two now. They become dull very suddenly and refuse to eat anything, and appear weak in the back. Will sometimes stagger when walking, and sometimes seem to grind their teeth. At first I thought it was something wrong with their jaws. The first one lived two weeks, and the second one only lived twenty-four hours. They didn't appear to be in any pain.

- 1. What can be the matter? 2. Is it contagious? 3. What would you advise me to do if any more take it? S. G.

Ans.—1, 2, 3. We are inclined to think by the description given that the sheep were troubled with grub in the head. This is due to the sheep gadfly laying its eggs in the nostrils of the animals in summer time, which find their way into the head and hatch out the larvae or grub which, in some cases, seriously affect the health of the sheep. Preventive measures are tarring the sheep's nostrils in the fly season. We have heard of sheep showing symptoms, having the grub dislodged by a sharp crack of a mallet on the top of the head. A little spirits of turpentine syringed up the sheep's nostrils has been known to cause them to sneeze so violently that they dislodge the grubs. However, these treatments are rather heroic, and are generally practiced as a last resort. Prevention is better than cure, and we would advise tarring the sheep's noses during the summer season. It may be that we are wrong in our diagnosis, and if more take it you should call in a veterinarian. The disease may be some liver or other constitutional trouble.

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The Page Wood Saw is Simple and Strong. Designed right, built to last, this saw is ideal for cutting poles and cordwood. A rigidly-braced steel frame, with tilting table—a dust-proof shaft box—balance wheel and pulley interchangeable. It Costs Only \$19. Saw Blades Supplied at These Low Prices. 20 inch \$3.25 26 inch \$5.25 22 inch 3.85 28 inch 6.05 24 inch 4.45 30 inch 6.85 THE PAGE WIRE FENCE COMPANY LIMITED. 1143 King Street West, Toronto

A Letter from Quebec. A Drummond County, Quebec, correspondent, C. H. Pye, writes in renewing his subscription, as follows: 'My only two sons enlisted, so with over 50 head of stock and shipping milk to look after, I found that I hadn't the necessary time to do a little canvassing. Now, just a line in regard to your good and ever welcome paper. It is the first opened on arrival, and much appreciated by all the household. For myself I would not be without it for double the price, and much appreciate the experience of older farmers than myself, re milking cows being turned out daily. I turn mine out twice daily to drink, and I have had good luck. No trouble calving, no stiff legs, good, strong calves, and the cows keep up a good flow of milk. Certainly it is more trouble to turn cows out to drink, but I think I am well paid in the condition of my cows. But I mustn't forget to say that I don't allow them to remain out long enough to chill. I think the cows don't feel the cold when they are turned out every day from early fall. They get accustomed to it, and I never see

When Writing Please Mention Advocate

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The first little leak, the first indication of warping, rotting or loosening in any of your farm buildings, is just the commencement of continual repair expense that will eat farther into your savings year after year—an expense you might easily save, by using

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ADDRESS

Questions and Answers.
Miscellaneous.

Soft Coal For Pigs.

Will soft coal do any harm to hogs that are fattening? They would eat all they could get of it. It keeps them from eating the lumber in the pen.

SUBSCRIBER.

Ans.—We do not see that soft coal will do any harm to the hogs. Many, however, feed charcoal to pigs for the same purpose as indicated in your query.

Cow Has Lump on Throat.

I have a young cow, five years old, with a lump on her throat, just below her jaw bone, it is a hard lump, about the size of an apple, and can be moved around. It does not seem to be attached to anything. I noticed it first in the fall. About a month ago I rubbed it with a liniment which drew it to a head, and it discharged a lot of matter. It healed up but is no smaller. The cow is in good condition, and the lump does not seem to bother her. Please advise. Would it be wise to have a veterinarian remove it?

SUBSCRIBER.

Ans.—This may be some form of glandular trouble, or, if in the proper location, lump jaw in the early stages of development. In either case it would be advisable to have a veterinarian examine it and advise. If not likely to develop it would be well to leave it alone, but an examination of it would be necessary before any recommendation could be made.

Growing Corn.

We have a nine-months-old colt which fell on the ice and appears to have hurt his stifle. The cap seems a trifle loose, but nothing out of place that I can see. When done it swelled from the tail to the hock, and was so sore he would scarcely put any weight on it for about a week, when

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LEADS THE WAY. BEATS EVERYTHING.
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Do you spend one day a week sweeping the front of the house, and part of a day scrubbing up the kitchen? Then you'll know how arm and back-ache come from pounding dust out of carpets and scrubbing dirt and grease out of softwood floors. Why not cut the "weep" out of sweeping and the "rub" out of scrubbing by putting in

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Flooring delivered to any point in Canada.

swelling gradually went down. This happened about a month ago. He can walk on it now and puts his foot well forward, but seems stiff and also has difficulty in rising. The hip joint appears to move up and down a little more than natural. He eats well and seems hearty. Kindly give us your opinion of it. Will he get all right? How should I treat it?

C. P.

Ans.—Your colt may come all right in time. It is possible, however, that the injury has caused luxation of the patella. If so, tie the colt so he cannot bite the parts, and apply a blister composed of 2 drams each of biniodide of mercury and cantharides, mixed with 2 oz. of vaseline. Rub this mixture well in around the stifle joint once daily for two days. On the third day let loose, wash off and apply sweet oil. Oil daily until the scale comes off. If the animal still shows lameness, repeat in a month if necessary.

Feeding Shorts and Oats—Share Farming.

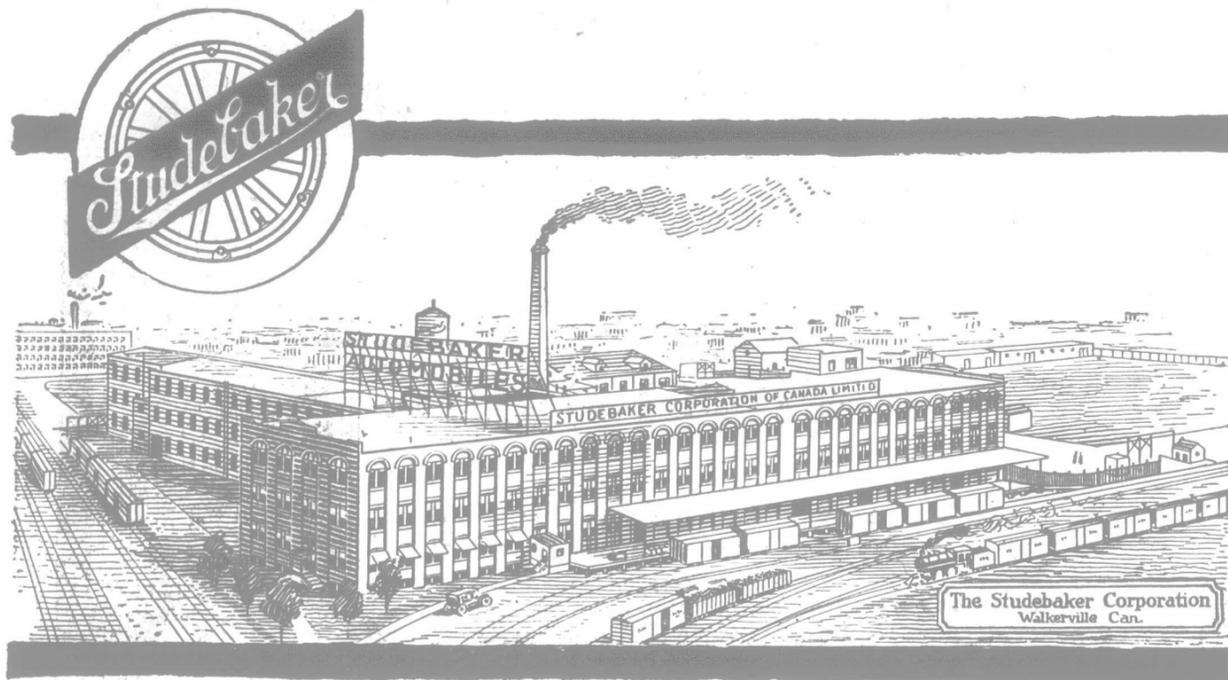
1. Would shorts and chopped oats be as good feed for steers as oats and barley mixed?

2. If I rent my farm after I put in the seed, what would be a fair share for the tenant, he to do all the work for the remainder of the season?

F. A. S.

Ans. Of course, a great deal would depend on the proportion of shorts and chopped oats fed, as compared with the proportion of oats and barley mixed. Some feeders claim that they get poor results by feeding barley with silage. It might be that your oats and shorts mixed in the same proportion as oats and barley would be mixed would give you as good results if fed with silage as would the latter mixture.

2. Not knowing all the conditions under which your farm would be leased we cannot definitely state what would be the fairest share for the tenant. If you furnish stock, somewhere between 25 and 35 per cent. of the returns should go to the tenant, under ordinary conditions.



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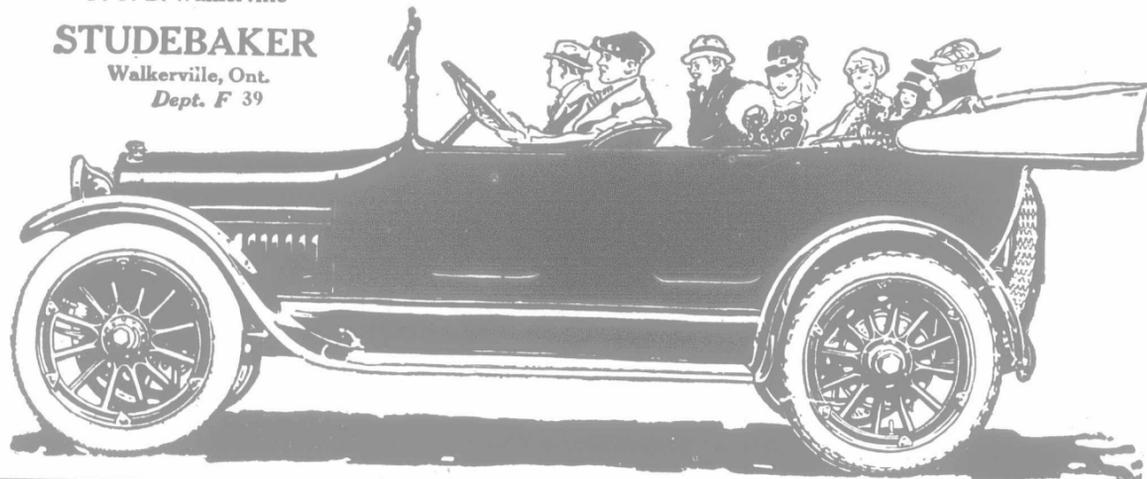
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Questions and Answers. Miscellaneous.

Registering Clydesdales.

I understand from some Clydesdale breeders that mares can be registered which have four crosses of pure-bred blood on the stallion's side. If so, kindly let me know through your Questions and Answers columns.

M. W. S.

Ans.—Clydesdale mares having four top crosses of Clydesdale blood are eligible for registration in the Clydesdale Stud Book of Canada. Get full particulars from J. W. Brant, Accountant National Live Stock Records, Ottawa.

Sow Fails To Breed.

I have a sow that has had pigs three times without any trouble. This fall after she had been served three weeks she seemed to make a nest and lose them, and about three or four days would have to be served again. She has done this three times. After the third time I let her go three weeks and then got her served again. Can you say what has been the trouble, and if you think she will breed again?

SUBSCRIBER.

Ans.—From your question we would be led to believe that it would be unprofitable to keep the sow in question. It is possible that she may breed again, but a sow which shows such symptoms is likely to prove unprofitable as a breeder. We would advise that you commence feeding her well for the butcher, and during the early part of feeding, you might breed her once or twice and see whether or not she conceives.

Odor From Skunk.

Please tell me in your valuable paper, if there is any way to diminish or entirely do away with the smell from a skunk? One was driven into our shed the other day, close beside the milk-room door, and afterwards killed there. We are afraid of the odor tainting the milk. There was a jar of butter containing sixteen pounds in the cellar-way, and the smell penetrated the wall so that the butter is too tainted to use. Is there any way to render the butter fit for use? We do not like to lose such a quantity.

J. H. P.

Ans.—It is doubtful if the butter can be made fit for consumption. We would suggest using it as wagon grease rather than destroying it altogether. The odor from a skunk is a persistent stayer, especially about buildings. It would probably be well to paint the woodwork near where the skunk was killed, and scatter plenty of lump lime about. Chloride of lime is considered a good de-odorizer. Procure the best quality of the latter and use it freely. If any of our readers have had experience with skunks about their buildings and have conquered the odors we should be glad to publish their suggestions.

Lambs Die.

EDITOR "THE FARMER'S ADVOCATE":

In renewing my subscription for the coming year, I thought I would give you my experience the past week with lambs. We have a flock of ewes, five of which have lambed, and lambs all died. Some jerk and twitch continually until they become very weak and finally die. The five ewes lost eleven lambs in this manner. None of them stood on their feet. The ewes are fed clover hay and oats once a day. Seem in good health and fair condition. We have a flock of 21 ewes and I am anxious to know what to do with the balance, so as to save the lamb crop. Can anyone tell me what is wrong? Have any of your readers similar experience? If so, what is remedy? I had the same misfortune with two young sows in fine condition, but both litters gradually dwindled down until none remained. One sow kept one or two of her pigs for two weeks before finally passing. Can you recommend help?

Lambton Co., Ont. W. P.

[Note.—Readers are invited to give experience through these columns. Have the ewes been overfed on roots and grain without plenty of exercise, and what was their condition and that of the ram at time of service?—Editor.]

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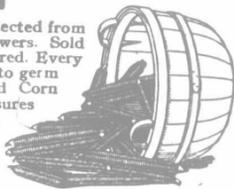
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Adjustable handle—movable to centre, right or left, as desired.



Strong light steel frame. All roller bearings (not ball). Dark oak finish with gold bronze hoops. Sold in eight sizes.

Gossip.

The advertisement of Duncan McEachran, D.V.S., proprietor of the Ormsby Grange Stock Farm, appears in this issue; look it up. He is offering Jerseys for sale.

Any farmer needing dairy cows of the right kind can get them at Byron Bowland's sale, Carleton Place, on March 22. The pure-bred cow Rosabelle De Kol Minto, No. 20472, has given 1,674 lbs. of milk in 30 days. The grade cows range from 40 lbs. of milk per day up to 60 lbs. per day. The young stock is particularly promising. The whole herd have winter fare. See the advertisement and write for further particulars.

What the members of the East Elgin Holstein Breeders' Club term, "a gilt-edge offering," will make up their Second Annual Consignment Sale of 50 Holstein-Friesian cattle, to be held in Aylmer, on Tuesday, March 14. This is a splendid opportunity for young breeders to make a start. Write the Secretary, H. V. Mann, Aylmer, Ontario, and get full particulars and a catalogue regarding the sale. See the advertisement elsewhere in this issue.

TAMWORTHS AT MAPLEHURST.

The outstanding merit of the Maplehurst herd of Tamworth swine of D. Douglas & Sons, Mitchell, Ont., is the superior breeding which has led to the development and success the Messrs. Douglas have had for many years. This herd's big exhibition performance at the Canadian National, the Central Canada at Ottawa, the Western at London, and the Provincial Winter Fair at Guelph, is notable. The herd has won ninety per cent. of the prize money as well as all herd prizes and all championships, with the exception of one in the last ten years. If you are in want of a good Tamworth of either sex, this herd has over one hundred head to select from. They also have some choice single comb White Leghorns, White Rocks, Toulouse geese, Pekin ducks, Bronze turkeys, and a good Shorthorn bull calf ready for service; also a Standard-bred mare. If in need of any such stock write or telephone them.

Questions and Answers. Miscellaneous.

Sheep Queries.

1. Will you please give me some general information on sheep raising? I have about eighty-five acres of good grain or pasture land, and about seven acres of apple orchard. I wish to keep four cows and four horses. How many sheep should I be in a position to pasture and winter? How many sheep will one acre pasture?

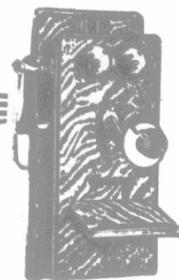
2. I would like to seed to alfalfa about fifteen acres, but I have been told that pasturing an alfalfa meadow will kill it. Would it be better to seed to red clover or other grasses?

3. Would it be advisable to grow corn for feeding sheep? W. P. B.

Ans.—1. On an 85-acre farm stock with 4 horses and 4 cows, 12 good breeding ewes would be plenty for a start. As time goes on, and you become more familiar with sheep breeding you might keep your increase of ewe lambs to add to the breeding flock up to 20 or 25 head. Not knowing the soil, and conditions, we are not prepared to state exactly how many sheep per acre should be kept, but the numbers given should do well on the farm if managed properly.

2. We would not advise sowing alfalfa for pasturage, particularly for sheep. Sheep graze closely, and would likely so weaken alfalfa plants that they would die during the winter. Sheep do well on red clover, or a mixture of red clover, some grasses, and possibly a little white clover added.

3. From practical experience we are not strongly in favor of feeding corn to sheep, although some good breeders are finding silage profitable for sheep feeding, as it is for other stock. For a winter roughage ration nothing better could be suggested than good, sweet clover hay and roots. It will not take a very large field of roots to supply 20 or 25 head of sheep for the winter, and we would certainly plan to have at least a few roots.



Which Telephone?

There are several thousand farmers scattered throughout Canada who have decided to establish telephone connection with their neighbors and with the outside world—to get in close touch with buyers, commission agents, the doctor and the stores. To ensure their complete satisfaction, their installation MUST measure up to the efficiency of

Stromberg-Carlson Telephones

Inferior apparatus is not worth installing—an instrument that does not reproduce the message clearly would cause endless trouble. Stromberg-Carlson Telephones, throughout North America, in City, Factory and Farm, are daily serving millions.

Notwithstanding the very moderate cost the instruments are most carefully constructed with the idea of giving efficient economical service in both local and long-distance connections. Do not decide on any telephone outfit

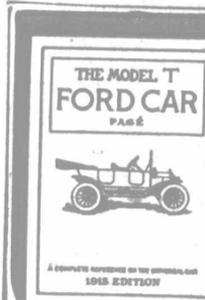
until you know what the Stromberg-Carlson apparatus will cost for the same job.

If you need a few more members in your community to establish a local company, advise us and we will gladly assist you.

"A Telephone on the Farm"

This book contains valuable information for you and will be sent free upon request. Do not hesitate to ask for estimates and assistance. Address—

Stromberg-Carlson Telephone Mfg. Co. 110-112 CHURCH ST., TORONTO



Ford Owners

Dealers, Salesmen and Repairmen should have a copy of this new book. It contains 300 (6x7 pages) with over 100 specially-made engravings and two large folding plates. Price \$1.00.

Many self-educational books on mechanics, electricity, agriculture and high-grade copyrighted fiction.

WINDSOR STOCK FEED COOKERS are safe, simple cookers of all stock foods and grains. Price, complete, \$9 and up.

WINDSOR STEEL WHEELS are made from highest-quality material. Will fit any wagon and give life-long service.

WINDSOR COMBINATION OUTFIT

is a useful, practical outfit for repairing boots, shoes, harness and tinware. Price only \$2.75.

WINDSOR GASOLINE MOTORS

A high-grade motor for every purpose. Send for catalogue of complete list.



Windsor Supply Co., Windsor, Ont.

ORMSBY GRANGE STOCK FARM

Orms town, P. Que.

For want of stable room the following registered Jerseys will be sold cheap:

- 2 First-class yearling heifers. 1 First-class yearling bull (extra) fit for immediate service. 2 First-class bull calves.

All sired by Royal Merger II. out of my best cows.

Also 2 mares, 4 years; 3 imported, registered Shetland ponies; 1 gelding, coming 2. Clydesdale mares and fillies of the very best breeding and conformation. Apply to:—

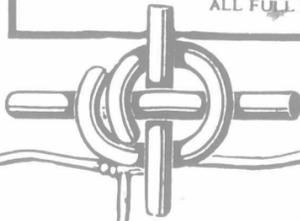
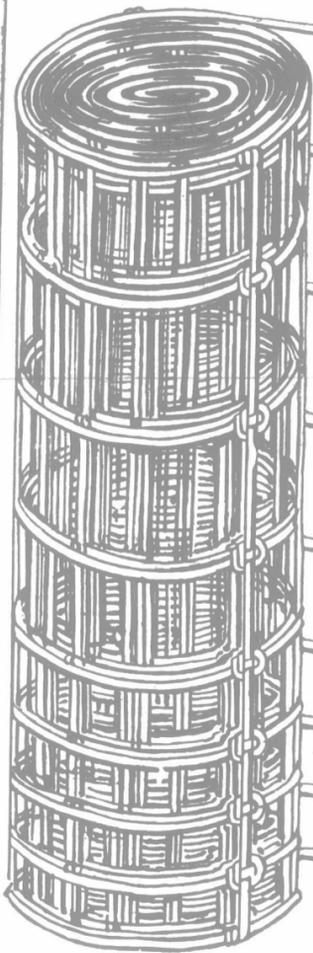
D. McEACHRAN, Orms town

Don't Buy Seed Corn

of doubtful germinating qualities. Our Golden Glow corn was dried over furnace heat. Almost 100% grows. Keep it ten days and test it. Money back if not satisfied. \$3.00 per bushel shelled. Spruce Row Farm, Route No. 2, Sarnia, Ont.

PRICE LIST				
No. of bars	Height	Stays inches apart	Spacing of horizontals	Price in Old Ontario
6	40	22	6-7-8-9-9	29½
7	40	22	5-5-7-7-8	33
7	48	22	5-6-7-9-10-10	34
8	42	16½	6-6-6-6-6-6-6	41
8	47	22	4-5-5-7-8-9-9	40
8	47	16½	4-5-5-7-8-9-9	42½
9	48	22	6-6-6-6-6-6-6	43
9	48	16½	6-6-6-6-6-6-6	46
9	52	22	4-4-5-5-7-8-9-9	43
9	52	16½	4-4-5-5-7-8-9-9	46
10	48	16½	3-3-3-4-5-7-7-7-8	49
10	48	12	3-3-3-4-5-7-7-7-8	54
10	52	16½	3-3-3-4-5-7-8-9-9	49
11	55	16½	3-3-3-3-4-5-7-8-9-9	54

New Ontario Prices on Request
ALL FULL No. 9 GAUGE



**Beware of the Too-Cheap Fence
Get Page Fence for Permanence**

PAGE Fence is always a safe purchase—a good investment. There is absolute proof of its superiority—of its life-time durability. At least we can show you some that's been up for 23 years, and still without a break, still giving good service.

Beware of the too-cheap fence. Page fence prices are as low as they can be, unless

we cut down weight and quality. And that we will not do.

Fence bought from Page has only one price—only one profit, and that a reasonable one. And Page quality is possible at Page reasonable prices only because it is sold direct from factory to farm. You don't have to pay agents' commissions or dealers' profits when you buy fence from us.

Send your order to the Page branch that is most convenient. Enclose cash, cheque, bank-draft or express order. We will ship immediately; freight prepaid on all orders of \$10.00 or more.



THE PAGE WIRE FENCE COMPANY LIMITED.

1143 King St., W.
Toronto

517 Notre Dame St., W.
Montreal

39 Dock St.
St. John, N. B.

Gossip.

In requesting a change of ad. Mitchell Bros., Burlington, report the following sales:

"To W. H. English, Harding, Man., our senior yearling show bull, Escana Perfection; to J. L. Walters, Clive, Alberta, Escana Bandsman; to J. Bousfield, McGregor, Man., Escana Orange-man; to W. G. Gerrie, Belwood, Ont., Escana Favorite. The four bulls just mentioned are all by Right Sort, Imp., and out of some of our most valuable breeding cows, they are the choicest lot of young bulls yet produced at Escana, and they go at good prices to head high-class herds.

To Morten & Garden, Ancaster, Ont., Escana Villager, a great, thick youngster by Right Sort; to Sherwood Coulson, Lowville, Ont., a Crick-hank Orange Blossom cow with a show heifer calf at foot; to J. Hotermehl, Neustadt, Ont., one choice bull by Raphael, Imp., and one good yearling heifer by Lochiel, Imp.; to Wm. Ghent & Sons, Freeman, Ont., who are a new firm; four choice females of the Orange Blossom, Cranberry, Claret and Butterly families; to Jno. Miller, Ash-

1915 Graham Bros'. Champion Stud 1916

At the great Guelph and Ottawa Winter Shows we showed in the Clydesdale classes, the grand champion, senior champion, junior champion, reserve grand champion, reserve senior champion, reserve junior champion stallions. Champion and reserve grand champion mare. The best five stallions, and the best stallion and two mares. We had 14 firsts, 6 seconds, 4 thirds.

We offer a great lot of big, young stallions and mares, imported and Canadian-bred, of the above breeds, the very best to be found in Canada, and at very reasonable prices.

GRAHAM BROS.

Claremont, Ont.

8 Imported Stallions 8 PERCHERONS 3 Imported Mares 3

Every horse offered a prize-winner. Stallions all guaranteed producers, and mares in foal. Also three good imported Clyde stallions. Prices moderate. Terms to suit.

HODGKINSON & TISDALE

Beaverton, Ont.

Clydesdale Stallions and Mares We are now offering for sale a number of extra good stallions, also mares in foal. Write or call on

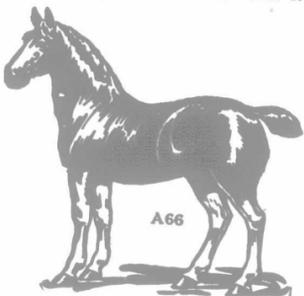
JOHN A. BOAG & SON, Queensville, Ontario

burn, Ont., three thick yearling heifers of the Orange Blossom, Ury and Jealousy tribes; to H. Newell, Millgrove, Ont., one Village Girl yearling bull; to Jos. Langstaff, Allenford, Ont., one Orange Blossom yearling bull; to Thos. Stanton, Wheaton, Ill., four show heifers, all winners at Toronto and London, including Escana Duchess, also the cow Imported Bessie 37th; to W. S. Fears, Broken Arrow, Okla., U.S., a choice pair of two-year-old heifers, the Missie heifer, Bandsman's Missie, dam of Escana Bandsman, and the imported cow Newton Jealousy 5th with bull calf at foot by Right Sort. This cow is a grand individual, and one of the best breeders in the herd. This week there arrived at our farms 25 head, the full herd of Lorne Forrest, Simcoe, Ont., he having sold his farm. Included in the lot is the imported three-year-old bull, Lochiel, a show bull and a proven valuable sire. Also Bandsman's Jealousy, a daughter of the above Imported Newton Jealousy 5th and others of such noted families as the Ury, Duchess, Gwynne and Duchess of Glosters. Seven have calves at foot; any of these are for sale, which make up a large number to select from. At our farm we still have a dozen good bulls, several of which are by Right Sort.

Make Your Lame Horse Sound, Like This

You Can Do It While He Works.

We want to show you that there isn't any affection that causes lameness in horses that can't be cured, no matter of how long standing. We want to send you our instructive book, "Horse Sense" No. 8. We



also want to send you an expert's diagnosis of your horse's lameness free. Simply mark where swelling or lameness occurs on above picture and write us how it affects gait, how long lame and its age.

We absolutely guarantee Mack's \$1,000 Spavin Remedy to cure Spavin, Bone or Bog Spavin, Curb, Splint, Ringbone, Thoroughpin, Sprung Knee, Shoe Boli, Wind Puff, Weak, Sprained and Ruptured Tendons, Sweeney, Shoulder or Hip Lameness and every form of lameness. We have deposited \$1,000 in bank to back up our guarantee. Cures while he works. No scars, no blemish, no loss of hair.

P. B. Smith, Jamestown, Cal., says: "In regard to my sprained horse, am pleased to state that after using one bottle of Mack's \$1,000 Spavin Remedy, my 24-year old horse is entirely cured." Your druggist will furnish Mack's \$1,000 Spavin Remedy. If he hasn't it in stock, write us. Price \$2.50 per bottle and worth it. Address, McKallor Drug Co., Birmingham, N. Y.

Lyman Bros. Co., Ltd., Toronto, Ont., Distributors to Drug Trade.

Notice to Stallion Owners

The inspection of stallions under the Ontario Stallion Enrolment Act, will commence March 23rd, 1916. All applications for enrolment and inspection, accompanied by the proper fee, must be in the Secretary's office, Parliament Buildings, Toronto, by March 13th. In case of applications received after March 13th, inspection will only be made at increased expense to owners. Address all communications to

R. W. WADE
Secretary, Ontario Stallion Enrolment Board, Parliament Buildings, Toronto

You Can't Cut Out A BOG SPAVIN, PUFF or THOROUGHPIN, but



ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.

will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. \$2.00 per bottle, delivered. Will tell you more if you write. Book 4 K free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Gout, Wens, Cysts. Alays pain quickly. Price \$1.00 and \$2.00 per bottle at druggists or ordered. Manufactured only by W. F. YOUNG, P. D. F. 258 Lyman Bldg., Montreal, Can.

Clydesdale Stallion For Sale

I have a fine Clydesdale stallion bred from imported sire and dam from the best blood in Scotland, three years old in May. Has served a few mares and is sure. Price reasonable.

CHAS. CURRIE, Morriston, Ontario

Percheron Stallion for sale 3 years old; black, extra fine quality, lots of bone and good feet, will make a ton horse; out of (imp.) stock. Apply to

SAM. M. C. SMYTH
Chatham Ontario R. R. No. 4

Belgian Horses—Stallions, mares and fillies, any age. French-Canadian horses, mares and fillies any age.

DR. J. C. REID & BROS.
Belgian Farm Chateauguay, P. O.

Mention this Paper

Questions and Answers. Miscellaneous.

Corn For Grain—Oil Cake For Horses Time to Sow Mangels.

1. When feeding dairy cows, in what ratio should they receive protein, carbohydrates, fats, etc.?
2. When should mangels be sown? How much seed is required per acre? How far apart should the rows be?
3. Is oil cake valuable feed for horses?
4. If so, how much should be given?
5. Where can I secure the best methods for raising corn for grain?

Ans.—1. The fats are considered to be two-and-one-half times more valuable than carbohydrates, and would have to be reduced to these terms. The ratio of protein to carbohydrates plus fat is one to six, or six and one-half.

2. As soon as the ground can be prepared after the cereal crops are sown. About six pounds of seed per acre, with rows from twenty-eight to thirty inches apart.

3. Fed along with other feeds, it is.

4. A pound or less per day.

5. An article on corn for silage purposes, in Feb. 24 issue, may give the information desired.

Filtering Rain Water.

Owing to certain conditions it is necessary for us to drink rain water. Would it have to be filtered? If so, would you suggest a system. The water would enter a tank in an upstairs room from the eaves, and it could be piped to the sink directly below. As it is somewhat of an experiment, I would like it to be as simple and inexpensive as possible. A storage tank, holding 100 gallons would probably be enough.

YOUNG FARMER.

Ans.—Rain water is quite suitable for domestic use, but it gathers some dust and other impurities deposited on the roof by wind and birds. These are washed off with the first dash of rain. After that the water is usually quite clean. A filter might be arranged to clarify the water before it enters the storage tank. Construct a suitable box, and in it place about one foot of clean sand. The water from the roof should first be allowed to filter through the sand and then run into the reservoir. Construct a box that can be cleaned out occasionally, and fresh sand put in. Furthermore, have an attachment to the inlet pipe from the roof that will distribute the inflowing water over the surface of the sand so it will not be obliged to all filter through at one place. Keep the storage tank dark to prevent the growth of algae, or other water plants. The water will be suitable for use, but it will taste flat on account of being soft.

THE OXFORD DISTRICT HOLSTEIN SALE.

Two interesting features of the Fifth Annual Oxford District Holstein Breeders' Club consignment sale, to be held at Rudd's Stable, Woodstock, on March 15, are Prince Abbecker Mercena, and a 26-lb. cow, a daughter of Annandale Colanthus. Prince Abbecker Mercena has been a great show bull. He was three times champion and grand champion at the Canadian National Exhibition, Toronto. He has also proven himself a great sire. He has 20 A. R. O. daughters up to 27.96 lbs., and five above 20. This is a splendid opportunity to purchase a sire which has proven himself right, both from the viewpoint of the show-ring and production. It is not often that one has an opportunity to buy a 26-lb. cow at auction, but breeders will have at this sale on March 15. There will also be offered several granddaughters of King Fayne Segis, the grandsire of a 1,395-lb. butter three-year-old, and a 1,200-lb. butter two-year-old. The get of many other notable bulls will be offered at this sale. Those consigning stock are well known and have good reputations. The Club itself is determined to maintain its good reputation at this sale. There will be 80 pure-bred Holstein-Friesians offered, which will be purchased at the bidder's price. There is yet time to write the Secretary, W. E. Thomson, Woodstock, for a catalogue, and get full particulars regarding this consignment sale. See the advertisement.



Will save your foals from
NAVEL DISEASE
and JOINT-ILL

More than 99% successful

NO HESITATION IN RECOMMENDING FOALINE.

Glenboro, Man., July 15, 1915.
"As I only had one year's experience with Foaline when you wrote me in March, I have deferred replying until now. Now after two years' experience I have no hesitation in recommending it to anyone raising foals. I consider it a sure prevention of Joint-Ill."
(Signed) WM. LYALL.

A tonic for the dam and for the unborn foal.

Chatham, Ont., Feb. 23, 1916.
Dear Sirs:—Two years ago I lost a colt from Joint-Ill; last year I used Foaline with the same mare, and the result was that she raised a good, strong, healthy colt. I strongly advise its use, even for all mares, as it puts the mare in good condition for foaling.
Yours truly, A. W. PUGH.

Foaline is insurance against diseases which cause a loss of more than 25 per cent. of all foals born in America.

Glenella, Man., Feb. 19, 1916.
Dear Sirs:—I bought twelve bottles of Foaline last Spring and sold them all but four to my neighbors. I had five mares in foal, and I fed the four bottles to four mares. The four I fed it to, their colts all lived, and the one I did not feed to died. So I cannot say too much for Foaline. The other eight bottles I sold proved the same. The eight colts lived.
Yours truly, ROBERT N. WILSON.

Try it on a mare you have had trouble with before—you get your money back if it fails.

High Bluff, Man., Feb. 18, 1916.
Dear Sirs:—I have a mare that foaled her first colt in 1913. The colt died from Navel Disease. In 1914 this mare's colt off the same sire also had Navel Disease. I bred her back to the same sire again in 1915, but treated her with Foaline. The Navel of the colt dried up in a short time and there was no sign of the disease. I intended treating her again this year, as the treatment seems to prevent the disease. Wishing you success.
Yours truly, CECIL H. GREENLAW.

FOALINE is easily administered, simply 2 teaspoonfuls in the feed once daily. One bottle for one mare. They like it.

Daysland, Alta., Feb. 20, 1916.
Dear Sirs:—I have used Foaline for a number of years with great success. I probably was one of your first customers. At least I did not lose any time in finding out about it when I saw the first ad. I find it does no harm to the Dam or her offspring.

I am not a Chemist nor Scientist, therefore, cannot in detail give the functions it performs on the generative organs. This one thing I will say. I was not like some of our forefathers who would not try, or use any remedy except it had been in use for generations in the family. I got busy and it did the trick.
Yours truly, H. BLOCK.

FROM ENGLAND.

Keld Head, Askham, Penrith, England, Oct. 6, 1914.
"I have pleasure in stating that Foaline, with which I treated a mare this season (this mare lost her foal last season in Joint Felon) has proved entirely satisfactory. The foal is doing well. Shall be pleased to recommend Foaline."
ROBT. L. COOPER.

CUT OUT THE COUPON BELOW AND MAIL IT TO DAY.

Some other users of Foaline: Robert Davies, Toronto, Ont.; John Bell & Sons, Angusville, Man.; Hon. W. H. Sharpe, Manitou, Man.; D. H. Bryce, Keeler, Sask.; A. W. Hunter, Armstrong, B. C.; George Metz, Didsbury, Alta.

PRICE—\$3.00 a treatment, delivered anywhere in the United States or Canada.

COUPON.

To WALLEN DRUG CO., Winnipeg, Man.
Please mail your booklet on FOALINE to

Manufactured only by the FOALINE LABORATORY COMPANY, 321 First Avenue North, Minneapolis, Minn., and the WALLEN DRUG CO., 407 Portage Ave., Winnipeg, Man., Canada.

1915 Importation CLYDESDALES 1915 Importation

With the addition of our 1915 importation of Clydesdale stallions we are particularly strong for this seasons trade. Prize-winners at all the leading shows, including championships. Up to a ton and over in weight, with breeding and quality unsurpassed. We can supply the wants of the trade, no matter how high the standard. Stallions from 1 yr. up to 8 yrs., in-foal mares and fillies. Terms to suit.
SMITH & RICHARDSON, COLUMBUS, ONT Myrtle, Brooklyn and Ottawa Stations

Imported Registered Stallions and Mares

In Percherons we have our very best to offer. Blacks and Grays, 3 to 5 years old. Belgians and Clydesdale Stallions, right type and quality. These have all been tested in the stud, and guaranteed good foal getters. Mares from 2 to 5 years old. Percheron, Clydesdale and standard-bred, these are over 3 years old, all safe in foal. If you want a Champion Stallion or Mare, come along and we will sell for less money than any other man in the business, and terms to suit.
Grenville is situated midway between Ottawa and Montreal, on the C.P.R., C.N.R. and G.T.R. Two trains daily each way.

J. E. ARNOLD
GRENVILLE, QUE.

Quality IMP. CLYDESDALES IMP. Breeding Strengthened by my the best the most popular breeding. Also Clyde. mares and one right choice French Coach stallion.
JAMES TORRANCE, Markham, Ont.

For Sale—An Imported Clydesdale Stallion

8 years old, weighing 2,000 lbs. A bay, nicely marked with a white face and four white legs. A sure foal-getter and a good worker. Been here for five years and scores of his colts are to be seen. Price \$1,000 cash. No second price or terms.
HENRY M. DOUGLAS.
Central Hotel, Elmvale, Ont.

Up to a Ton in Weight
Clydesdales Imp.
If you are looking for a ton stallion on faultless underpinning, bred to produce the big, high-priced horses, come and see what I have, there are none better and none priced easier.
WM. COLQUHOUN,
MITCHELL, ONT.

Gombault's Caustic Balsam

The Worlds Greatest and Surest
Veterinary Remedy
HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Caustery or Firing. Invaluable as a CURE for

- FOUNDER,
- WIND PUFFS,
- THRUSH,
- DIPHTHERIA,
- SKIN DISEASES,
- RINGBONE,
- PINK EYE,
- SWEENY,
- BONY TUMORS,
- LAMENESS FROM SPAVIN,
- QUARTER CRACKS,
- SCRATCHES,
- POLL EVIL,
- PARASITES.

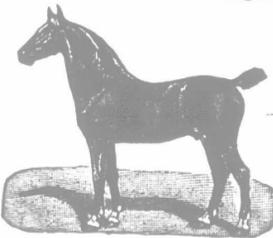
REMOVES

- BUNCHES or BLEMISHES,
- SPLINTS,
- CAPPED HOCK,
- STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

The Accepted Standard VETERINARY REMEDY
Always Reliable. Sure in Results.



None genuine without the signature of
The Lawrence-Williams Co.
Sole Proprietors & Distributors for the U.S. & CANADA. CLEVELAND, O.

NOTHING BUT GOOD RESULTS.
Have used GOMBULT'S CAUSTIC BALSAM for more than 20 years. It is the best blister I have ever tried. I have used it in hundreds of cases with best results. It is perfectly safe for the most inexperienced person to use. This is the largest breeding establishment of trotting horses in the world, and use your blister often.—W. H. RAYMOND, Prop., Belmont Park Stock Farm, Belmont Park, N.Y.

USED 10 YEARS SUCCESSFULLY.
I have used GOMBULT'S CAUSTIC BALSAM for ten years; have been very successful in curing curb ringbone, capped hock and knee, bad ankles, rheumatism, and almost every cause of lameness in horses. Have a stable of forty head, mostly track and speedway horses, and certainly can recommend it.—C. C. CRANK, Training Stables, 990 Jennings Street, New York City.

Sole Agents for the United States and Canada.
The Lawrence-Williams Co.
TORONTO, ONT. CLEVELAND, OHIO.

FOR SALE—20 IMPORTED AND CANADIAN-BRED

Clydesdale Brood Mares

Fillies and Yearlings

Many prizewinners at Canadian shows. Entire lot will be sold at a reasonable price.

THORNCLIFFE STOCK FARM

244 Don Mills Road

TORONTO



Percheron Stallions and Mares

All imported from France, four to seven years old, all proven foal getters, Government approved; first-class certificates, weighing 1,900 to 2,100 lbs. Blacks and grays I am going to close them out. Now is your opportunity to get a good stallion at your own price. Terms to suit. Write at once for particulars and come.

J. B. HOGATE, - - - Weston, Ontario

ABERDEEN-ANGUS HEIFERS IN CALF

We are offering at reasonable prices a few two-year-old heifers that are in calf to our choice herd bulls. These heifers are by imported sires and dams.

Correspondence solicited or come and make your own selection.

Clydesdale Teams
Prices Reasonable

LARKIN FARMS

QUEENSTON, ONTARIO

ORCHARD GROVE HEREFORDS

Have several young bulls and heifers for sale. Satisfaction guaranteed.

L. O. CLIFFORD,

Oshawa, Ont.

The Maples Herefords

Having sold all our older bulls we are now offering an excellent bunch from 8 months to 2 years. We are also showing and breeding bull, Superior Lad. He is sire and grandsire of our best. Correspondence solicited. Phone 15.

W. H. & J. S. HUNTER

Orangeville, Ontario

Questions and Answers. Miscellaneous.

Buying Old Apiary Supplies.

A certain party had a number of bees and lost them all. I believe the bees died from neglect and starvation, but I do not know it to be correct. Would it be advisable for a party to buy his supplies or is there danger of there being foul brood or some other disease? V. B.

Ans.—The hives could be disinfected by burning them out with a torch or straw. If it is probable that foul brood destroyed the bees it might be just as well to leave the supplies alone, yet if the price would warrant they could be disinfected and made safe. The matter would depend largely on the price and the cause of the former failure.

The Sex of Guinea Fowl.

In your issue of Feb. 24, "Subscriber" asks for some means of determining the sex of guinea fowl. There are two ways, that have been satisfactory to us. As the fowl approach maturity and later, by listening and watching, we find the call altogether different. That of the female somewhat resembles "go back," while that of the male is more of a chirp. Also, on the upper part of the beak, where the red skin terminates, there is quite a heavy ridge, almost like a red cord, on the male, while on the female, it is almost smooth.

Lanark Co., Ont. G. E. S.
In reading "The Farmer's Advocate" I noticed the question regarding the sex of guinea fowl. The hen calls "buckwheat" and the cock does not. The cock bird has a very brown breast, and the hen has not. Also, the cock bird has larger and redder lobes.

Oxford Co., Ont. EARL DANIELS.
Pruning—Spraying and Grain Mixture.

1. When is the best time to prune apple trees?
2. Would heavy pruning injure trees and lessen this year's crop?
3. I intend to spray three times this year; when is the proper time to spray, and what proportions of lime-sulphur would you suggest for each spraying, also arsenate of lead?
4. Would spring wheat and oats mixed grow well on clay loam? If so, what quantity of each would you suggest to sow per acre? J. E. C.

Ans.—1. The popular season for pruning is in the spring just after the season opens and it becomes warm enough. There is no best time. A few fruit growers pruned all through January, and would have continued had the weather been warm enough.

2. Heavy pruning might give the tree a slight shock and curtail the crop. The argument has been advanced that heavy pruning will force some of the fruit buds into shoots, and thus increase the wood growth at the expense of fruit; at any rate it is not advisable to prune too severely, for the consequent growth of new wood will make still more pruning for the next year.

3. This will be thoroughly discussed in the Horticultural Department of early issues. Space would not permit of a full explanation of the matter here.

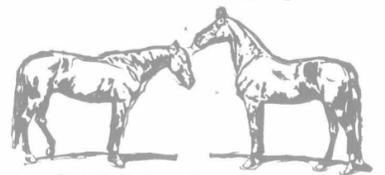
4. Two bushels of some good variety of oats and $\frac{1}{2}$ to $\frac{3}{4}$ bushel of goose wheat should make a good mixture, and they should do very well on a clay loam soil.

Gossip.

The right time and the right place to buy Shorthorn bulls and females will be March 29, at the consignment sale in London, Ontario. There will be 35 young bulls, the best in Western Ontario, offered and sold. They include herd headers fit to go anywhere. Some of them have milking blood behind them. Most of the offering are of Scotch breeding. The females will be a grand lot, including youngsters and heifers and young cows well on in calf. See the advertisement, and get a catalogue and all information from Harry Smith, Hay, Ont., manager.

SAVE-THE-HORSE

MADE IN CANADA
(Trade-Mark, Registered)
SPAVIN REMEDY



THIS SHOWS!

Such unusual and continual results as the following prove that this remedy is so reliable—and successful—that it is positively a safe and secure investment to buy it under our CONTRACT. This is a signed, legal contract to cure or refund the money. 20 Years a Success.

"I say body writes from around here, send them to me and I will show what it has done," writes Mr. John Davis, R. 1, Annapolis, N. J., and he tells this interesting experience: "I had a mare that ran away and hurt her knee. They had tried all everything and the man I got her of said, 'You can't make her go sound.' I said nothing; but I got a bottle of Save-The-Horse and before one-half the bottle was used she was sound as a dollar. Two years later she went lame behind, and I could not use her. The doctor said 'a rib bone.' He gave a blister, and if not better in 3 weeks to fire and blister; at the end of 3 weeks the blister healed, but horse as lame as ever. So I told my wife I will use Save-The-Horse. You would be surprised, as in the next 3 weeks she was working every day and has never taken a lame step since. Two neighbors also had good success with Save-The-Horse."

No Matter what remedy you think of using, Don't Fail to send for our FREE 96-page Save-The-Horse BOOK. It is a mind-getter on 58 FORMS of LAMENESS—illustrated. Write today if only a postal. We originated the plan of treating horses—Under a Signed Contract to Return Money if Remedy Fails on Ringbone—Thoroughpin—SPAVIN—OR ANY Shoulder, Knee, Ankle, Hoof or Tendon Disease. But write. BOOK, Sample Contract and ADVICE—ALL FREE (to Horse Owners & Managers). Address: TROY CHEMICAL CO., 145 Van Horn Street, TORONTO, ONT.

Druggists Everywhere sell Save-The-Horse with CONTRACT, or we send by Parcel Post or Express paid.

BITTER LICK

MEDICATED
Salt Brick



Great Conditioner & Worm Destroyer

Bitter Lick is a compressed salt brick, medicated with roots, herbs, etc. In such proportion as will keep horses in excellent condition and free from worms. Bitter Lick keeps the appetite open; all horses like it; tones the digestion and prevents colic. It has no cheap filler and takes the place of worm and conditioner powders, etc., keeps horses healthy for only one cent a week. Ask your dealer or write for booklet to STEELE BRIGGS SEED CO., Winnipeg, Man. and Toronto, Ont.

ALLOWAY LODGE STOCK FARM

Angus, Southdowns, Collies

Special this month:

Southdown Prize Rams

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

Elm Park Aberdeen-Angus

Our herd is headed by Beautys Erwin =5736= grand champion bull at Edmonton 1914 and London 1915. He is out of our champion cow Beauty 4th, =1852=, and sired by Erwin C. =5735=; grand champion bull at Chicago 1913. He is assisted by young Leroy, sired by grand champion bull Chicago 1912. We have stock by these bulls for sale.

JAMES BOWMAN, Elm Park, Guelph, Ont.

Springfield Aberdeen - Angus

Choice young bulls of serviceable ages. females all ages for sale. Kenneth C. Quarrie, R. R. No. 5, Belwood, Co. Wellington, Ontario. Bell Phone

Tweedhill—Aberdeen-Angus. Choice

young bulls of serviceable age; also females. If you want anything in this line write: James Sharp R. R. 1, Terra Cotta, Ontario Cheltenham, C.P.R. & G.T.R.

ANGUS BULLS 4 young Aberdeen

Angus bulls, well bred, from 4 to 10 months old. Reasonable price for quick sale—also heifers. M. G. RANSFORD, Clinton, Ontario

Aberdeen-Angus The cattle now in

demand. Some choice heifers and a few young bulls from the imported sire "Pradamer" apply to: A. DINSMORE, Manager "Grape Grange" Farm, Clarksburg, Ontario

Middlebrook A. Angus—For Sale are several

choice prize-winning sons of my 1915 gr. champion bull, Black Abbot Prince, and his Toronto and London 1st prize $\frac{1}{2}$ brother, also winning daughters of the same. John Lowe, Elora, Ont., R. M. D.

Balmedie Aberdeen-Angus—Get a high-

class Angus bull and breed the champion steers. I have show-ring quality bulls from 10 to 24 months of age; also choice 1- and 2-year-old heifers. T. B. BROADFOOT, Fergus, Ont.

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few females...
WOOD, Freeman...
Fletcher's...
direct from...
for sale, also...
R.R. 1, Erin, Ont.

If Your Horse Could Talk

He would tell you that he can do lots more work when the wagon wheels are greased with

MICA AXLE GREASE

Mica Axle Grease fills the pores of the axle. Makes a perfect bearing surface. Reduces friction to a minimum.

Dealers Everywhere The Imperial Oil Company Limited BRANCHES IN ALL CITIES



Questions and Answers. Miscellaneous.

A Small Litter.

What should I do with a sow that is only raising me two pigs, this being her first litter? Would you advise me to breed her again or not? W. H. W.

Ans.—If she is a good type of sow we would advise giving her another trial. It would be scarcely advisable to condemn her the first litter. However, the best breeders of large litters usually throw a larger litter than two the first time.

Dried Beet Pulp.

1. What quantity of dried beet pulp would you advise feeding with ground barley to cows before and after freshening?

2. Would it require any other grain with it, also would it be safe to feed some to horses? S. H. F.

Ans.—1 and 2. About four pounds of beet pulp would be sufficient. For cows giving milk it would be advisable to add bran or oats to the ration. We doubt if beet pulp would make a satisfactory feed for horses.

Seed For Pasture Land.

I would like to know through your paper, what kind of seed would be the best to sow on high, rough land, that can only be used as pasture land, and still make a good pasture for both cattle and sheep. W. F. M.

Ans.—A mixture which should be suitable for pasture on high, rough land is: orchard grass, 5 lbs.; tall oat grass, 3 lbs.; meadow fescue, 3 lbs.; Kentucky blue grass, 3 lbs.; timothy, 2 lbs.; alfalfa, 5 lbs.; white clover, 3 lbs., and 2 lbs. red clover per acre. This makes 26 lbs. per acre, but it is advisable to sow plenty of seed.

Leucorrhoea.

What would you do with a mare that has a white discharge for a couple of weeks after she is bred? What is the cause? Is it safe to use a horse on her? A. McE.

Ans.—From symptoms given, we believe the trouble is leucorrhoea or whites, which is a chronic disease of the womb difficult to treat, and the mare is not likely to conceive until the disease is checked. It is generally advisable to get a veterinarian to treat the disease. If you decide to treat it yourself, you must flush the womb out twice weekly with about one gallon of a two-percent solution of zenoleum heated to 100 degrees F., and introduced with an injection pump or large syringe with a long nozzle. Give internally 30 drops carbolic acid, mixed with a cupful of water and sprinkled on her grain twice daily. Continue treatment until discharge ceases. It is claimed that there is no danger of a horse carrying the disease, but it is advisable not to use a horse on the mare until she is cured.

Approach to Barn.

1. I intend to build a root cellar 20 feet wide. How heavy a steel rail should I put in to reinforce the cover, and how far should they be placed apart to be strong enough for a threshing machine to go over?

2. Would you think it advisable to build a wall through the middle to support the cover, or would it be as well to put a concrete beam through the center with piers to support the cover?

3. If I would build a wall through the center how heavy should the rails be for a 10-foot span?

4. Would it be necessary to put bridge netting across if rails are put in? W. H.

Ans.—1. Sixty-pound rails should be heavy enough if placed two and a half or three feet apart, and woven wire fencing used as reinforcement.

2. We doubt if it is necessary to build either a wall or beam to give extra support, provided the roof is well built and plenty of wire used on top of rails. We have seen cement posts built to give support.

3. It is not advisable to use less than 50-pound rails.

4. Bridge netting or woven wire fencing would be required along with the rails to strengthen the concrete between the rails.



Good harness deserves good care; keep the trimmings clean and bright with Old Dutch



Escana Farm Shorthorns

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

MITCHELL BROS. Burlington P.O., Ontario Jos. McCrudden, Manager. Farm 1/4 mile from Burlington Jct.

OAKLAND SHORTHORNS 10 males and 43 females (milk strains) grand choice of bulls from \$100 to \$175. Young cows and heifers from \$100 to \$200, nearly all sired by one of Ontario's best bulls (still at head of herd). All good individuals. Write or come and see. JOHN ELDER & SONS, HENSALL, ONTARIO

Quality Scotch Shorthorns —High-class breeding—We have fitted for immediate sale several extra choice young bulls of serviceable age at a price, quality and breeding considered that cannot be duplicated in the country; also high-class heifers. RICHARDSON BROS., Columbus, Ont.

OAK LODGE STOCK FARM Shorthorn Bull, 20 months old, bred from dam of milking strain. Two bulls, twelve months old Will be sold at a price that will please customers. J. E. BRETHOUR & NEPHEWS BURFORD, ONT.

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

10 Shorthorn Bulls and 40 females. Shropshire and Cotswold ewes for sale at prices within the reach of all. JOHN MILLER, Ashburn, Ont. Myrtle Sta., C.P.R. & G.T.R.

Shorthorns PRESENT OFFERING Master Butterfly, red roan, calved, June 1915 Blythsome Girl 5th, -87184-. Dam, Ramsden, red roan, calved, May 1915, sired by Nonpareil Lord -87184-. Master 144th, by Lord Lavender -70558-. Fifteen choice yearling heifers. A. J. HOWDEN, COLUMBUS, ONT. Myrtle, C. P. R. & G. T. R. Oshawa, C. N. R.

Spruce Glen Shorthorns When in want of Shorthorns visit our herd. We have 70 head to select from. Minas, several young bulls of breeding age—level, thick, mellow fellows, and bred just right. JAMES McPHERSON & SONS, DUNDALK, ONT.

Woodholme Shorthorns For Sale—Four bulls sired by imp. Lord Gordon, fit to head good herds and a number of cheap bulls for graded herds, money. Mail orders filled with greatest care. Write your wants. G. M. FORSYTH, Claremont, Ontario

Rosedale Stock Farm We are offering for sale one three-year-old Shire stallion, pony horse foal, all first prize winners at Canadian National Exhibition, Toronto, and one Hackney Fair, Guelph, in 1915. The Shire stallion also being champion at both fairs. Also one two-year-old Hackney pony gelding, a Toronto winner. J. M. Gardhouse, Weston, Ont. G.T.R., C.P.R. and Electric Lines. Long-distance Telephone.

Pleasant Valley Farm Shorthorns —For sale, 9 bulls of serviceable age. We can interest you in a real good bull at a right price, for herd headers also females. Write us before buying. GEO. AMOS & SONS, Moffat, Ont., Stn. C.P.R., 11 miles east of Gue., Ont.

Shorthorns and Shropshires —T. L. MERCER, Markdale, Ontario—With 125 head to select from, we can supply young cows in calf, heifers from calves up, and young bulls from 9 to 18 months of age, richly bred and well fleshed. In Shropshires we have a large number of ram and ewe lambs by a Toronto 1st-prize ram; high-class lot.

Shorthorns and Clydesdales —Two bulls, serviceable age, both good ones, and are offering females of all ages. Have some choice heifers bred to Clansman -87809-; also two mares in foal, 3 and 4 years old, and one 2-year-old filly. All from imp. stock. A. B. & T. W. DOUGLAS, Strathroy, Ont. L.-D. Phone.

Maplehurst Herd of Tamworth Swine, S. C. W. Leghorns and White Rocks—This herd has won about 90 per cent. of the prizes offered in the last ten years at the Canadian National, Toronto, Ottawa, London and the Guelph Winter Fair. D. DOUGLAS & SONS, R. R. No. 4, Mitchell, Ontario

Please Mention "Farmer's Advocate"

Advertisement for American Cream Separator, featuring a large '15' and '95 UPWARD ON TRIAL' text.

Advertisement for Eureka Potato Planter, including an illustration of the machine and a horse-drawn carriage.

Advertisement for Governor Pulley, showing an illustration of the pulley mechanism.

Advertisement for Clay Tile, showing an illustration of a tile and listing sizes and prices.

Advertisement for Apple Grove Farm Shorthorns, listing details of the herd and contact information.

Advertisement for Fletcher's Shorthorns, describing the quality of the herd and providing contact details.



Fresh Vegetables From Your Own Garden

make the meals so much more tempting—as well as much more healthful and less expensive.

But of course for a really successful garden you need the very best seeds. So it's worth while to see that you get

Ewing's Reliable Seeds

They have produced 44 successive crops in Canadian gardens and fields—they have rarely disappointed—and have so often pleased beyond all expectations.

Write at once for our Illustrated Catalogue, and if your Dealer hasn't Ewing's Seeds, order from us direct.



The
**William Ewing
Co. Limited**
SEED MERCHANTS
McGill Street
Montreal
41

Great Shorthorn Bull

FOR SALE. Clan Alpine 2nd =88387= (see illustration in reading columns, this issue.) dam, Donside Alexandra (imp.) (59513), sire, Proud Monarch =78792=, calved, Jan. 6, 1912.

This is one of the best bulls individually, as well as one of the best pedigreed bulls in America today, and right in every way. Will be sold right. Also young stock for sale. This advt. will appear only once.

George Ferguson, Salem, Ont.

1854—Maple Lodge Stock Farm—1916
SHORTHORNS and LEICESTERS

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

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

Shorthorns high-class young bulls from 7 to 18 months, 15 young cows and heifers, straight, smooth, big kinds of choicest breeding, including several families that have produced dairy test winners. I never was in a better position to supply you with a good young bull at a more reasonable price. Write me or come and see them.

Stewart M. Graham

Long-distance Phone Lindsay, Ont.

For Sale The Imp. Shorthorn bull Bandman =73729=. Also 2 young bulls, a Princess Royal, and a Fair Maid.
WM. GRAINGER & SON, R.R. No. 1, Auburn, Ont. Blyth Phone 3810.

Shorthorns bulls, females, reds, roans, size, quality. Breeding milkers over 40 years. Cows milking 50 lbs. a day. Big, fleshy cows that will nurse calves right. Prices easy, write:
Thomas Graham, R. R. 3, Port Perry, Ont.

Gossip.

AYRSHIRE BULLOCKS AS BEEF PRODUCERS.

Sir Mark J. M'Taggart Stewart, Bart, of Southwick, has just demonstrated the value of pure-bred Ayrshire bullocks as beef producers. The dairy cows at Southwick Home Farm have a reputation as milkers, the official record for the herd of 73 cows and queys in 1915 being 732 gallons of 3.64 per cent. milk. Evidently, however, they are not merely milking machines. In the spring of 1915 twelve bull calves, instead of being sold as "slinks," were kept for bullocks; and these twelve animals were sold by James Craig (Ltd.), auctioneers, Ayr, on 25th January last. The average weight was 1,290 lbs., and the average price was \$153.80; surely an eloquent proof that the Ayrshire can make some claim to consideration as a dual-purpose animal.

The calves were taken over from the bower in the usual way. They were in-wintered the first winter, but were out-wintered the second on hay and 2 lbs. rough cotton cake. During the summer they received no feeding on the grass, and were put into the feeding boxes in October.

Within the next two months a very large number of Ayrshire bull calves will be slaughtered. Many of them, though certainly not all of them, would, if kept, grow into useful bullocks, and would form a valuable addition to our food supplies. Many farmers might, with advantage to themselves and benefit to the nation, follow the example set by Sir Mark Stewart.

SCOTTISH FARMER.

NOTES FROM "MAPLE LODGE."

Writing from Maple Lodge Stock Farm, Clandeboye, Miss C. Smith has the following to say regarding the stock and the sales made:

"Our stock has come through the winter in a remarkably satisfactory condition, healthy and vigorous, showing the careful attention they have had. We have succeeded in selling all we were anxious to sell, at good prices, and have remaining an increasing number of promising females that we will have more to say about later on. We wish to thank the kind friends, old and new, who have been interested in what we are trying to do. Their letters of enquiry were encouraging and replying to them was a pleasure. Words of appreciation from customers have given confidence, so that we have been much helped.

We have recently sold to Thos. Caverhill, Ilderton, the red calf "Joffre" from one of our record heifers. This heifer gave us 6,300 lbs of milk testing 4.1 butter-fat in ten months—R. O. P. test. To Jos. A. Tisdelle, Tilbury, "Gertrude's Son," whose dam, "Gertrude," has an official record of 9,383 lbs. milk and 379 lbs. butter-fat in ten months. This cow, at the close of her milking period, was in such fine flesh that she would have done us credit in any show-ring. To Tolchard Bros., Chesley, we have sold the very handsome red calf "Will Lavender," whose dam is also a very heavy milker, though we have not as yet a complete official record for her. Anyone still having doubts of combining beef and milk in the Shorthorn should visit us when all doubts would vanish."

Questions and Answers.

Miscellaneous.

White Grubs.

1. I ploughed a sod field last fall, which, at the depth I plowed, was covered with white grubs. Will this interfere with next spring's crops?

2. What would you advise to sow?

D. P.

Ans.—1. If the white grubs were full grown last fall, there is a possibility that they will pupate during the winter and come out as "June" beetles in the spring, but if they were only partly grown they would likely interfere with crops this spring.

2. White grubs have been known to destroy almost all spring crops with the exception of buckwheat. It is advisable to, at least, avoid corn, and potatoes on grub infested land.

Great Shorthorn Sale



Wednesday, March 29th, 1916

Thirty-five young bulls include the best individuals that have been at public sale in Ontario in years, some from Record of Performance cows.

Thirty high-class heifers that will please the most exacting, the older ones well along in calf. Mainly of first-class Scotch breeding and bred along dual-purpose lines. Many from heavy-milking dams.

The consignment consists of selections from the herds of J. T. Gibson, J. Watt & Son, Harry Smith, The Nicholsons, Herb. Lee, Wm. Waldie and others.

Freights to any point in Ontario to Ontario purchasers will be refunded by the Ontario Government. We are making a special low rate to the Western Provinces.

Write for catalogues, and plan to attend the sale.

T. E. ROBSON, Auctioneer.

HARRY SMITH - Hay, Ontario
Manager of the Sale

Dairy Shorthorn Bulls

From 12 to 14 months old, from good dams and by our stock bull, College Duke =85912=. Address—

Weldwood Farm

Farmer's Advocate

London, Ontario

Twenty Imported Bulls

These imported bulls, along with 10 home-bred bulls, may now be seen at our farms. There are some choice ones among them. We also imported four cows and a heifer, all of which are forward in calf. An invitation is extended to anyone interested in this class of stock to visit us at any time. Correspondence will receive our most careful attention.

Burlington Jct., G. T. R.
Burlington Phone or Telegraph.

J. A. & H. M. PETTIL,
Freeman, Ont.

The Salem Shorthorns

are headed by "Gainford Marquis" (Imp.). Records prove that he is the greatest Shorthorn show and breeding bull in existence. Special offering: Eight bulls from eight to fifteen months.

J. A. WATT, Elora, Ont., G.T.R. & C.P.R.

MAPLE SHADE FARM SHORTHORNS

The products of this herd have been in very strong demand. There's a reason. Can always supply a good young bull at a price which will make him well worth the money. Not many females for sale but can show a few which should interest you.

W. A. DRYDEN, Maple Shade Farm, Brooklin, Ont.
Brooklin, G. T. R. C. N. R., Myrtle, C. P. R.

GLENGOW SHORTHORNS AND COTSWOLDS

Pure Scotch in breeding, we have an exceptionally choice lot of bulls for this season's trade, ranging in age from 8 to 15 months, big mellow fellows and bred in the purple. Also lambs of first quality.

Wm. Smith & Son, Columbus, Ont. Myrtle, C.P.R., Brooklin, G.T.R., Oshawa, C.N.R.

"Maple Hall Farm" Shorthorns

Three choice young bulls, eight to twelve months old; also younger ones and some young cows with calves at foot. Two-year-old heifers and younger ones.

D. BIRRELL & SON, Clarendon, Ontario
Stations: Greenburn, C. N. R., Clarendon, C. P. R., Pickering, G. T. R.

SHORTHORNS AND SHIRES

For Sale—a few choice young bulls, cows and heifers, of high-class quality, choice breeding and from splendid milking dams. Also two young stallions and a few mares and fillies. Prices reasonable.
JOHN GARDHOUSE & SONS, Weston, Ont. C.P.R., G.T.R. & Electric Railway L-D Phone



TILE drainage makes your land produce more dollars to the acre, besides making it worth more per acre. It not only drains marshy spots, but also increases the productiveness of your entire farm by correcting water levels. The work can be done quickly and economically with

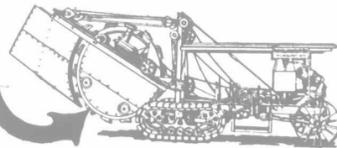


Farm Drainage Excavator

The self-cleaning excavating wheel is constructed of wrought steel angles and plates, forged to shape by machinery and true to form. Driving gears are of heavy steel plate, sharpened at the cutting edge. There is plenty of power to cut through any kind of soil and the "P & H" Corduroy Grip Traction gives the machine a sure footing on any kind of ground. The "P & H" has behind it a long record of good work done in all parts of the country.

If you have land to drain, send for Farm Drainage Bulletin FA.

Pawling & Harnischfeger Co.
MILWAUKEE WISCONSIN



Ploughs—Wilkinson

U.S.S. Soft Centre Steel Moldboards, highly tempered and guaranteed to clean in any soil. Steel beams, steel landsides and high carbon steel couler. Clevis plough is fitted especially with its own pair of handles—rock elm, long and heavy and thoroughly beaced. The long body makes it a very steady running plough. Shares of all widths—specials for stony or clay land. The plough shows turns a beautiful furrow, with minimum draft and narrow furrow at finish. Ask for catalogue.



Ring-Bone

There is no case so old or bad that we will not guarantee Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of Fleming's Vest Pocket Veterinary Adviser. Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durably bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists
75 Church St. Toronto, Ont.

For Sale—two Jersey bulls, grandson's Fairy Glen's Raleigh dam of one, Junior from prize-winners at Toronto and Guelph. **TRA NICHOLS.** Woodstock, Ont. Please mention "The Farmer's Advocate."

Gossip.

CHAMPION CLYDESDALES AT CAIRNBROGIE.

History repeats itself with the Cairnbrogie Stud of Graham Bros., Clairmont, Ontario. Their record of championship winnings, during the last quarter century, is practically unapproachable, and they again carried off the highest honors at the 1915 fall shows, as well as the Guelph and Ottawa Winter Fairs. There have been some good horses in these stables in the past, but they never contained at one time so many high-class horses as are there at present. Some of the more important individuals are as follows: Lord Gleniffer, Imp., '12330; brown, foaled in 1905. He is by the Glasgow first-prize Sir Ronald. In 1912, Lord Gleniffer's first year in Canada, he was first at Toronto, and champion at Chicago. At the late Winter Fair at Ottawa, he was again champion and grand champion. Baron Ascot, Imp., [16337], is a bay, foaled in 1912. He is by the great Baron's Pride, and his dam was the Glasgow first-prize Netherlea. In 1914 he was champion at Toronto, and grand champion at Guelph. Baron Minto, Imp., [13989], is a bay foaled in 1906; he is by Baron's Pride, and his dam was Thelmo. In 1914 he was first in his class at Toronto and Guelph. Fyvie Peer, Imp., [17902], is also a bay, which was foaled in 1912. He is by the Royal champion, Diploma, and his dam is by the well-known horse Baron Beaulieu. In 1915 and 1916 he was second at Toronto, Guelph and Ottawa. Cedric King, Imp., [18186], was foaled in 1913, and is by the well-known sire, Cedric's Baron, and his dam was by the noted prize horse, Lothian Again. In 1914 he was first at Toronto and second at Guelph. In 1915 he was second at Toronto and first at Guelph; in January, at Ottawa, he was again first. Alert, Imp., [16939] was foaled in 1911. He also is by Baron's Pride, and his dam was by the noted champion, Hiawatha. His winnings have been first and second at Toronto, and second at Chicago. Chester Prince, Imp., [14060], foaled in 1905. He is by the Aberdeen second prize Rathilet. His dam was the Cawdor Cup champion, Chester Princess, by Baron's Pride. As a horse he is a credit to his illustrious breeding. Rising Hope, Imp., (17642), is another bay, foaled in 1911, by the noted Craigisla, dam by Look Again. In 1913 he was second at Toronto. Promoter, Imp., is a black, foaled in 1909, by the Glasgow second-prize Crossrigg, dam by the noted Royal Peer. The high-class quality of those mentioned is duplicated in the several other stallions in the stud. In the Canadian-bred section, is without doubt the finest collection of stallions in Canada, including the Guelph and Ottawa champion. In mares the standard is particularly high. Many of them are in foal to Lord Gleniffer and Baron Ascot.

Trade Topics.

A CHANCE FOR THOSE GOING WEST. HOMESEEKERS' EXCURSIONS, C. P. R.

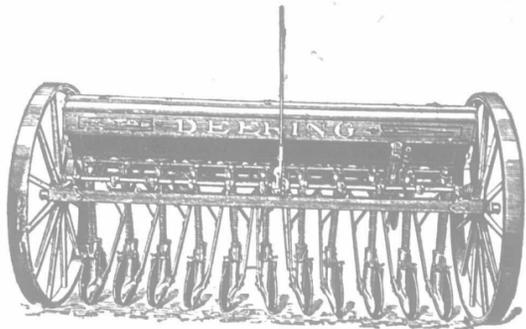
Homeseekers' Excursions to Western Canada at low fares via Canadian Pacific each Tuesday, March 7th to October 31st, inclusive. Particulars from any Canadian Pacific Agent, or W. B. Howard, District Passenger Agent, Toronto.

HOMESEEKERS' EXCURSIONS TO THE LAND OF WHEAT.

Homeseekers' Excursions to Western Canada at low fares via Canadian Pacific, each Tuesday, March 7th to October 31st, inclusive. Particulars from any Canadian Pacific Agent, or W. B. Howard, District Passenger Agent, Toronto.

"You say you are too old for the army and you can't do heavy work. What can you do?"
"Well, wot's the matter with smoking cigars in the green-house to keep out the insects?"—London Opinion.

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DEERING drills do away with delay at planting time. They have a workmanlike way of sticking steadily to business until the job is done—that does away with most of the terrors of our short planting season.

Then, too, they are easy on horses. The high, wide wheels help. The weight of the drill is light. The feed runs turn freely. The dust-proof disk bearings take off a lot of pull. Steady planting and light draft make a good drill combination—the kind you get when you buy a Deering drill.

You would be perfectly safe in buying a Deering drill on its record and reputation, but we would not advise buying that way. See the Deering first—look it over thoroughly—note all the features the Deering local agent will show you—and then you'll have a basis of comparison when you look at other drills, a comparison that, we believe, will bring you back to the Deering to buy. Don't forget—see the Deering local agent when you are ready to talk drill. In the meantime, if you say so, we will send you a catalogue. Write us at the nearest branch house.

International Harvester Company of Canada, Ltd.

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At Brandon, Calgary, Edmonton, Estevan, Hamilton, Leithridge, London, Montreal, N. Battersford, Ottawa, Quebec, Regina, Saskatoon, St. John, Winnipeg, Yorkton

Dispersion Sale of My Entire Herd

30 Head Holstein Cattle

27 Females and 3 Males, on
Wednesday, March 22nd, 1916

At **ELMWOOD FARM**, four miles west of **CARLETON PLACE** on Perth Gravel Road.

This offering includes three pure-breds, the herd header, Eleanor's Hengerveld Korndyke, No. 18011; also a yearling son of his, Minto De/Kol Hengerveld, No. 26053, his dam, Rosabelle De Kol Minto, No. 29472. Twenty-one grade cows from two to seven years old, each cow is due to freshen in April. Five yearling heifers, one grade yearling bull, sired by the herd header and from choice cows. This is one of the best dairy herds in Eastern Ontario. Every animal offered will positively be sold, as circumstances prevent the proprietor from continuing dairying for the present.

TERMS—Eight months' credit, no interest. Liberal discount for cash. Sale commences at 1 o'clock. Accommodations provided for those from a distance.

Auctioneer—CHAS. HOLLINGER, Ferguson Falls, Ont.
H. C. BOWLAND, Clerk, Almonte, Ont.

Byron Bowland, Prop., Carleton Place, R. R. No. 1 Ont.

LYNDEN FARM HOLSTEINS

Offers choice bulls with 20,000-lb. breeding, including Pontiac Korndyke Plus, 2 years old, out of Plus Pontiac Artis, 20,900 lbs. milk, 985 lbs. butter, champion 3-year-old of Canada in R.O.P. test, and sired by Inka Sylvia Beets Posch, the sire of May Echo Sylvia, champion milk cow of the world for 120 days, and the only bull in Canada with two 33-lb. daughters. Also the champion yearling bull at Guelph, by the same sire, and another yearling with four 20,000 dams in his pedigree. Also a few richly-bred young females.

S. LEMON & SONS, Lynden, Ont.

Evergreen Stock Farm—REGISTERED HOLSTEINS
Present offering; Several bull and heifer calves, also a few yearling heifers bred and ready to breed. Write for prices and descriptions. Bell phone. **A. E. Hulet, Norwich, Ont.**

Quality and Production are combined in the dams of the young bulls for days. Also females of all ages for sale; dams average from 25 to 31 lbs. butter in 7

M. L. HALEY Springford, Ont. M. H. HALEY

Percherons and Holsteins—We have Percheron stallions from yearlings up, from yearlings up, quality and type unsurpassed. In Holsteins we have for sale, cows, heifers and young bulls. Come and make your selection. **W. G. HILL & SON, Queensville, Ont., P.O. and Station.**

Dumfries Farm Holsteins—Think this over, we have 175 head of Holsteins, fall, and 60 heifers from calves up to 2 years, as well as a dozen yearling bulls, and anything you may select is for sale. Breeding and individuality the very best.
S. G. & ERLE KITCHEN, St. George, Ont.

Columbias Put GO into Engines
 Marine, auto and stationary engines run "smooth as silk" when hooked to Columbia Batteries. Lanterns blaze, bells clang, blasts roar—with COLUMBIAS. Made better each year for 27 years! Sold everywhere!

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 93 Paton Road, Toronto
 Convenient Fishmarket spring ship building posts, no extra charge.

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 FOR GENERAL IGNITION
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Market the Milk
 Raise your calves and get the bigger money to which you are entitled. But do not feed the calf whole milk with butter fat worth \$600 a ton.

RAISE YOUR CALVES WITH BLATCHFORD'S CALF MEAL

Blatchford's Calf Meal
 The Recognized Milk Equal
 You get 100 gallons of rich milk food from 100 pounds of Blatchford's Calf Meal, and it costs you only one-fourth as much. It will make your calf grow fast and well. Blatchford's Calf Meal is composed of the elements which his live to improve milk substitutes. Blatchford's Calf Meal insures a quick, sturdy growth of young pigs at weaning time, without a shock or falling off. Write us for our Free Book on "How to Raise Calves Cheaply and Successfully Without Milk".
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HIGH MILK RECORDS
 are made only by healthy cows. Keep yours in top-notch condition with

Pratt's Animal Regulator
 25c. up to \$1.50.
 Keeps appetite keen and digestion good.
 Sold on Money Back Guarantee.

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ENTIRELY NEW book—new chapters—4, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Spruce Grove Holsteins
 SIR LYONS HINGERVOLD SEGIS 69859
 These are all those sons of the above sire, born within 16 months old, from a sire and high producing cows.

G. D. COOPER, Willowdale, Ont.
 1734 KENNEDY ST.

HOLSTEINS
 For sale—Holstein Bulls varying in age from 1 to 11 months from Record of Performance or Record of Merit dams and the grand bulls Sir Korndyke Wayne DeKol, grandson of Pontiac Korndyke, or Lakewood Daehland Le-Strange, a grandson of Count Humberfeld Fayne DeKol. Prices right. APPLY TO SUPERINTENDENT.

R. M. HOBBS, R. R. 4, Port Perry, Ont.

Questions and Answers.
 Miscellaneous.

Dorset Sheep.
 Is it advisable to breed Dorset sheep twice a year? If so, how soon after spring lambs arrive? E. F.
 Ans.—It is not an uncommon practice to breed Dorsets twice in one year. Breed so that the lambs will be ready for market when prices are usually the highest. Ewes may be bred almost any time of the year.

Silos.
 1. How many barrels of cement and gravel would be required to build a silo 15 feet by 30 feet, and 10 inches thick?
 2. Will a cement silo keep silage as well as a wooden one?
 3. Which would be the cheaper, wood or cement?

A SUBSCRIBER.
 Ans.—1. About 49 cubic yards of gravel and 41 barrels of cement, if the wall is built in the proportion of one part cement to eight parts gravel.
 2. Both wooden and cement silos are giving entire satisfaction.
 3. It would all depend on local conditions. Price of lumber, and distance the gravel would have to be hauled, would be factors to consider.

Alfalfa—Wire Worms—Mare Has Corns—Varieties of Potatoes.
 I have an excellent piece of alfalfa from which I would like to save some seed. Last year the second cutting was even better than the first, being nearly three feet long, but it lodged just as it started to flower. 1. Would this be good for seed, or is it too strong? 2. Which is better for seed, first or second cutting? 3. How should it be cut, with binder or mower? 4. When should it be cut? 5. How is it threshed, with clover huller or grain thresher? 6. I intend to plant corn in a field infested with wire worms. Is it advisable? 7. I have to buy my seed potatoes; name a few of the best late varieties for clay land? 8. Mare has corns in front foot. Is there a remedy? 9. I have two cows with blind quarters, and some say they inherit it. Is that right?

A SUBSCRIBER.
 Ans.—1. If good, plump seed forms in sufficient quantity to make it profitable, we see no reason why it should not be saved for seed.
 2. Seed is usually procured from the second cutting.
 3. The binder is frequently used for cutting alfalfa for seed. If a mower is used an attachment can be fastened to the cutting bar to gather the alfalfa, and a man following the mower could move the alfalfa to one side so neither mower wheels nor horses would thresh out the seed.
 4. Cut when the greater proportion of the seeds are hard, but not sufficiently ripe to shell too much. At this stage the majority of the pods are a dark brown color.
 5. The clover-huller is usually preferred, although alfalfa may be threshed with ordinary grain separators.
 6. We think not.
 7. Carman, Delaware, Empire State, Dooley, Green Mountain.
 8. It is advisable to remove the shoe and pare out the seat of the corn to see if there is an abscess, but do not remove more horn than is necessary. If matter has formed, allow it to escape, and poultice the foot for two or three days. If a corn, where pus has formed, does not heal readily, pass a red-hot iron into it and freely burn the diseased parts. If the discharge has a bad odor, it is possible that the pedal bone or lateral cartilage are involved; in which case the part should be opened out, the diseased portions removed, and the wound antiseptically attended to. After applying treatment, have a three-quarter or bar shoe put on.
 9. While it is doubtful if the blind quarter is inherited; it is believed that any weakness in the parts, may be hereditary.

YOUR CHANCE THE WEST IS CALLING.
 "Homesackers" Excursions to Western Canada at low fares via Canadian Pacific, each Tuesday, March 7th to Oct. 1st, inclusive. Particulars from any Canadian Pacific Agent, or W. B. Howard, District Passenger Agent, Toronto, Ont.

The Fifth Annual Sale of
THE OXFORD BREEDERS' CLUB on
Wednesday, March 15, 1916
80 PURE-BRED Holstein - Friesians
 THE BIGGEST AND THE BEST OF THE SEASON.

The place to buy the best cows is where most milk is produced. Oxford has long held the proud distinction of producing the most milk. The most of the winners of public tests come from Oxford. The greater part of the show cattle come from or were bred in or near Oxford. Do not miss the chance to get some of the best. Among the lot will be a 26-lb. cow, the great show bull, Prince Abbecker Mercena, a brother to a 34-lb. cow, and sire of 20 R.O.M. daughters, up to 24 lbs.; a son of a yearling heifer that gave 13,000 lbs. milk testing 4.6%; grand-daughters of King Walker, the greatest sire of milk producers of the breed (age considered) of Colantha Johanna Lad, who is rapidly forging to the front, and descendants of the best that breed has produced, such as King Segis Pontiac Korndyke and others. None better to be had. Come to Woodstock for a day's outing. Come and see the greatest sale of the season. Come and be with the biggest crowd gathered to see Oxford's great black and white cattle sold. It will be a day of instruction, a day of pleasure, and we hope a day of profit. **80 head of Pure-bred Holstein-Friesian cattle.** Terms: Six months' credit without interest.

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W. E. THOMPSON, Secretary. **JAC. LEUSZLER** Manager.
 Auctioneers: **T. MERRIT MOORE.** **WM. PULLIN.**

Second Annual Consignment Sale
 OF
50 Holstein - Friesian Cattle
 In AYLMEER, at 1 o'clock on
Tuesday, March 14th, 1916
 The offering is gilt-edge—by the members of the East Elgin Holstein Breeders—and we say NOW is the time for the young breeder to make the start. Send for catalogue to Secretary of sale.
H. V. MANN, Secretary, AYLMEER, ONT.
 Box 220 R.R. No. 4

RIVERSIDE HOLSTEINS
 Herd headed by King Johanna Pontiac Korndyke, a grandson of Pontiac Korndyke, and a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in seven days, 156.92 in 30 days—world's record when made.
J. W. Richardson, R. R. No. 2, Caledonia, Ontario

Holstein Cattle
 The only herd in America that has two sires in service whose dams average 110 lbs. milk a day and over 35 lbs. butter a week. Cows that will give 100 lbs. milk a day are what we are trying to breed. At present we have more of them than any other herd in Canada. We can supply foundation stock of this breeding. Visitors always welcome. Long-Distance Phone.

D. C. FLATT & SON, R.R. 2, Hamilton, Ont.

Cloverlea Dairy Farm offers for sale a choice 33 lb. bull ready for immediate service. Write us for price and particulars. We have also a limited number of choice young bulls right. L. D. Phone.
GRIESBACH BROS., Collingwood, Ontario.

Clover Bar Holsteins My special offering just now are some choice young bulls Ormsby, whose dam has 334 lb. butter, out of official record dams and sired by Count Mercedes and his sire was the great Sir Adair Ormsby. Also a few females.
PETER SMITH, R. R. No. 3, Stratford, Ont. Stratford or Sebringville Stations

QUEEN CITY HOLSTEINS
 Present offering is 10 young bulls, from 6 to 14 months of age, the records of whose dams sire's dam and her full sister, range from 28 to 32 lbs. They are sons of King Lyons Humberfeld Segis.
R. F. HICKS Newtonbrook, Ont. On T. & Y. Railroad Line

For Sale---Sons of King Segis Walker
 From high-testing dams of Pontiac Korndyke. Photo and pedigree sent on application.
A. A. FAREWELL OSHAWA, ON ARIO

30-lb. BRED HOLSTEINS 30-lb. The home of Sir Sadie Korndyke Segis, sire King Segis DeKol Korndyke, who is the sire of the 4-yr-old 4-lb. cow, Dan Sade Corn poster Mianone, 31.74 butter. We have some of his bull calves for sale out of cows with records up to 20 lbs. Write for extended pedigree or come to see them.
D. B. TRACY Cobourg, Ont.

HOSPITAL FOR INSANE, Hamilton, Ont. For Sale—Holstein Bulls varying in age from 1 to 11 months from Record of Performance or Record of Merit dams and the grand bulls Sir Korndyke Wayne DeKol, grandson of Pontiac Korndyke, or Lakewood Daehland Le-Strange, a grandson of Count Humberfeld Fayne DeKol. Prices right. APPLY TO SUPERINTENDENT.

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H. Fra...
Lakes...
 A few young...
High-C...
 richly-bred...
D. M. Watt,
For Sale T...
WM. GRAING...
 Ont. R. R. 4, Port Perry, Ont.

"METALLIC" covered buildings defy the elements

RAIN
SNOW
FIRE
STORMS
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LIGHTNING

THIS is a strong but a true statement. "Eastlake" Galvanized Shingles on the roof, "Empire" Corrugated Iron or "Metallic" Siding on walls, and the building will last for generations. And it will do more than just "last"—it will be always fireproof, stormproof, lightning-proof, neat in appearance, and dry inside. Thirty years of successful use all over Canada prove these statements.

"Eastlake" Shingles
have already stood over 30 years. They make your building safe from fire. Easily laid yet no storm can lift them, no sleet or rain can drive underneath. Fit snug and tight in the valleys. "Eastlake" heavily galvanized shingles are the original and best, their patented features can never be equalled. Get our prices.

"Metallic" goods are heavily galvanized. Our prices will interest you.

"Metallic" Siding
Is fire-proof, neat, easily laid, inexpensive and durable. It saves you insurance, protects the lives of your family—your stock—your goods—from the fire fiend. Our Rock, Brick and Clap-board patterns are sharply embossed and very popular. Write for prices and illustrations.

"Metallic" Ceilings
Are famous for beauty, sharp embossing, ease in laying and durability. They banish the wall-paper problem and free you from cracked plaster and peeling wall-paper. Quite in-

"Empire" Corrugated Iron
is always uniform in gauge and size, therefore it is easily and quickly laid by even inexperienced labor. Has deep, snug-fitting corrugations and makes a strong, rigid fireproof wall that needs no paint or repairs. All

"Metallic" building materials also include "Empire" Silo Roofs, low-priced but money-savers; "Halitus" Ventilators, very efficient and durable; "Acheson" barn roof-lights for light and ventilation; Conductor pipe, Eave-troughing and many other specialties in metal. Made in Canada under our 30 year old motto, "Quality First." Send for illustrated booklets, price lists and our helpful building suggestions.

Metallic Roofing Company, Limited, Mfrs.
TORONTO and WINNIPEG

expensive. Make a beautiful, sanitary, easily cleaned, fire-proof covering, that is readily nailed on over any surface. Splendid for Sunday schools, halls, etc.

USE THIS COUPON TO-DAY.
Put a cross opposite the "Metallic" line you are interested in, clip this out and mail to us with your name and address and we'll send you pamphlets, prices and full particulars.

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Empire Cor. Iron	Acheson Roof Lights
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White King of Hearts, Imp., for sale are in
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Live stock Labels for
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by the Ketchum
Manufacturing Co.

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Questions and Answers.
Miscellaneous.

White Scours.
We have lost a number of calves
this winter from what is called white
scours. The cows appear healthy and
the calves seem all right until they are
about a day old, then they lose their
appetite and get so weak that in a few
hours they are unable to get up and
they never live more than three days,
some only a few hours. We have
tried both feeding by pail and by
letting them suck the cow, but it
evidently makes no difference.

Getting Rid of Skunks.
A neighbor has a nest of skunks un-
der the floor of a dwelling. The house
has no cellar under it. Poison, traps,
etc., have been set, but only succeeded
in getting two of them. Tearing up
the floor has been thought of, but turned
down for obvious reasons. As they
are very annoying, can you let me
know the best way to get rid of them?
D. W. M.

Ans.—White scours is believed to be
a contagious disease. The young ani-
mals become infected by the germ of
the disease entering the system through
the navel. A remedy that is recom-
mended is described in an article in
March 2 issue, on common ailments
of calves.

Ans.—We doubt if there are any
successful methods other than you have
used for destroying the skunks. They
usually take the offensive when dis-
turbed. The probability is that they
will vacate their present place of abode
when spring opens up. Carbon bi-
sulphide might be used, 1 pound to
100 cubic feet of space. This forms a
gas which is heavier than air and might
be lowered through the floor, but every
precaution would have to be taken if
it were used. It is a rank poison and
very inflammable. All fires and lights
would have to be extinguished, and
people living in the house would be
obliged to leave it for a short time.

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Alderly Edge Yorkshires
Two boars and 10 sows farrowed Sept. 1st. Weight also 10 lbs. Price right.
J. R. KENNEDY Knowlton, Que.

Questions and Answers. Miscellaneous.

Trading Another's Cart.

A has a cart. B has a buggy. B trades with A and gets the cart. Afterwards B finds out that A did not own the cart—it belonged to C.

1. Can C come to B and claim cart if A has sold the buggy?
2. Can B collect anything from A for the buggy?

Ans.—1. It is probable that he can.
2. Yes, if compelled to give up the cart to C.

Owner of Life Estate.

A dies leaving a piece of property to his widow B during her life-time, and at her death it is to pass to their son C. Has B any right to remove any timber for market purposes? If not, and B and C agree to market a number of trees which are dead and will soon be past any value, how should the proceeds be divided? The money is not needed for any purpose in connection with the estate, and is not needed for the support of B.

Ontario. A. E. H.
Ans.—B has the right to fell, cut up and market the dead trees, and retain the proceeds for her own use and benefit.

Paying the Thresher.

I had a thresher come to my place last year to thresh for so much, and after threshing a while he stopped and said he wanted more money or he would not finish it; so he went away and left the rest without being threshed. Will the law allow him to collect for what he has done, or would he be obliged to come and finish before he could collect his money?

J. C.
Ans.—In legal strictness he is not entitled to collect anything; but if he were to sue, and the case were to come on for trial in the Division Court, the judge might be disposed to allow something, and he would have the power to do so. It would be such amount as he might consider just, having regard to all the circumstances.

Title by Will.

In 1875 my father made a will, leaving his farm unencumbered to me and died in '87. The will was duly registered and nothing more. One witness still lives, the other is dead.

1. Will this length of possession so confirm the title that nothing more is needed in order to sell the property?
2. If it is necessary to prove the will, can the living witness be permitted to attest to the signature of the dead one?
3. Can a notary public or other person than a lawyer do the business necessary for this before the proper court?
4. What will be the approximate cost, farm being worth about \$7,500.

Ontario. R. S.
Ans.—1. Probably so.
2. Yes. 3. No.
4. It depends upon various circumstances besides the value of the farm, and without information regarding same we are not in a position to give even an approximate estimate of the costs.

Landlord and Tenant.

Landlord has farm with tenant on it. His term expires the first day of April.

1. Can tenant move to another farm before that date, the landlord wishing him to stay to work down straw?
2. If tenant moves has he any right to charge for straw that is unused?
3. The tenant leaves and pays the rent, can he hold possession of place till first of April?
4. Can he prevent landlord from cutting wood or pruning before first of April?
5. Is the tenant responsible if anything happens to buildings, he living about four miles away and not giving up possession?

Ontario. C. R. W.
Ans. 1. Yes. 2. No. 3. Yes.
4. If landlord did not reserve, in the lease, the right to cut wood and prune trees he is probably not entitled to do the former, but may do the latter if really necessary.

5. Yes, if the happening were something injurious and that have been prevented if the tenant had remained in actual possession and been reasonably careful.

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Does all you could wish of a poultry fence and more. Built close enough to keep chickens in and strong enough to keep cattle out. Even small chicks cannot get between the close mesh of lateral and vertical wires. The heavy, hard steel top and bottom wires, together with intermediate laterals, will take care of a carelessly backed wagon, or an unruly animal and spring back into shape immediately. The wires are securely held together at every intersection by the PEERLESS Lock.
The Fence That Saves Expense
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Send for Literature and address of nearest agent. We also make a complete line of farm and ornamental fencing. Agents nearly everywhere. Agents wanted in unassigned territory.
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has made a great record throughout all Canada. There are good reasons why this is so. Balanced Right—Does not hump up. Improved Plate—Cuts and turns soil over. Hitches well Back—Easy draught. This Disk has several imitators, but no equal. None genuine without the name "BISSELL." Test trials given on hard land with anything that cultivates. Write Dept. W for free Catalogue. 92
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Sows bred, others ready to breed; boars ready for service; younger stock, both sexes, pairs not able All breeding stock imp. or from imp. stock. Prices reasonable.
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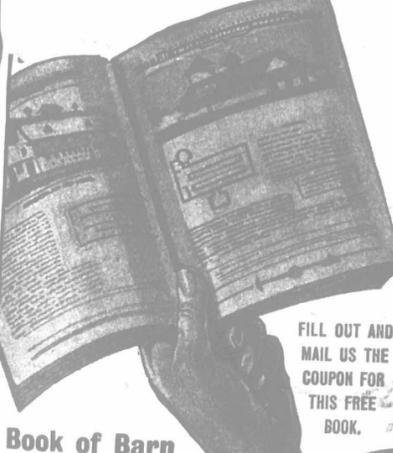
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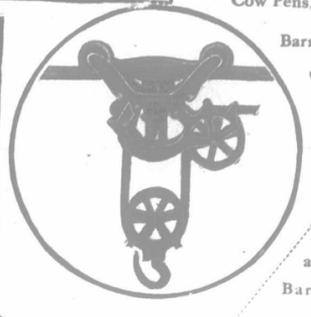
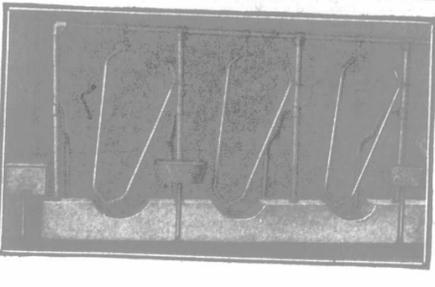
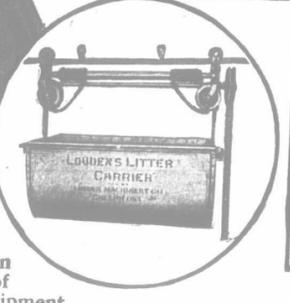
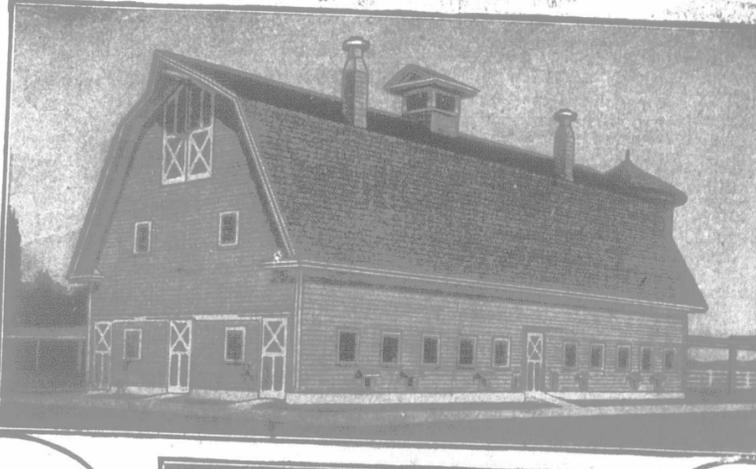
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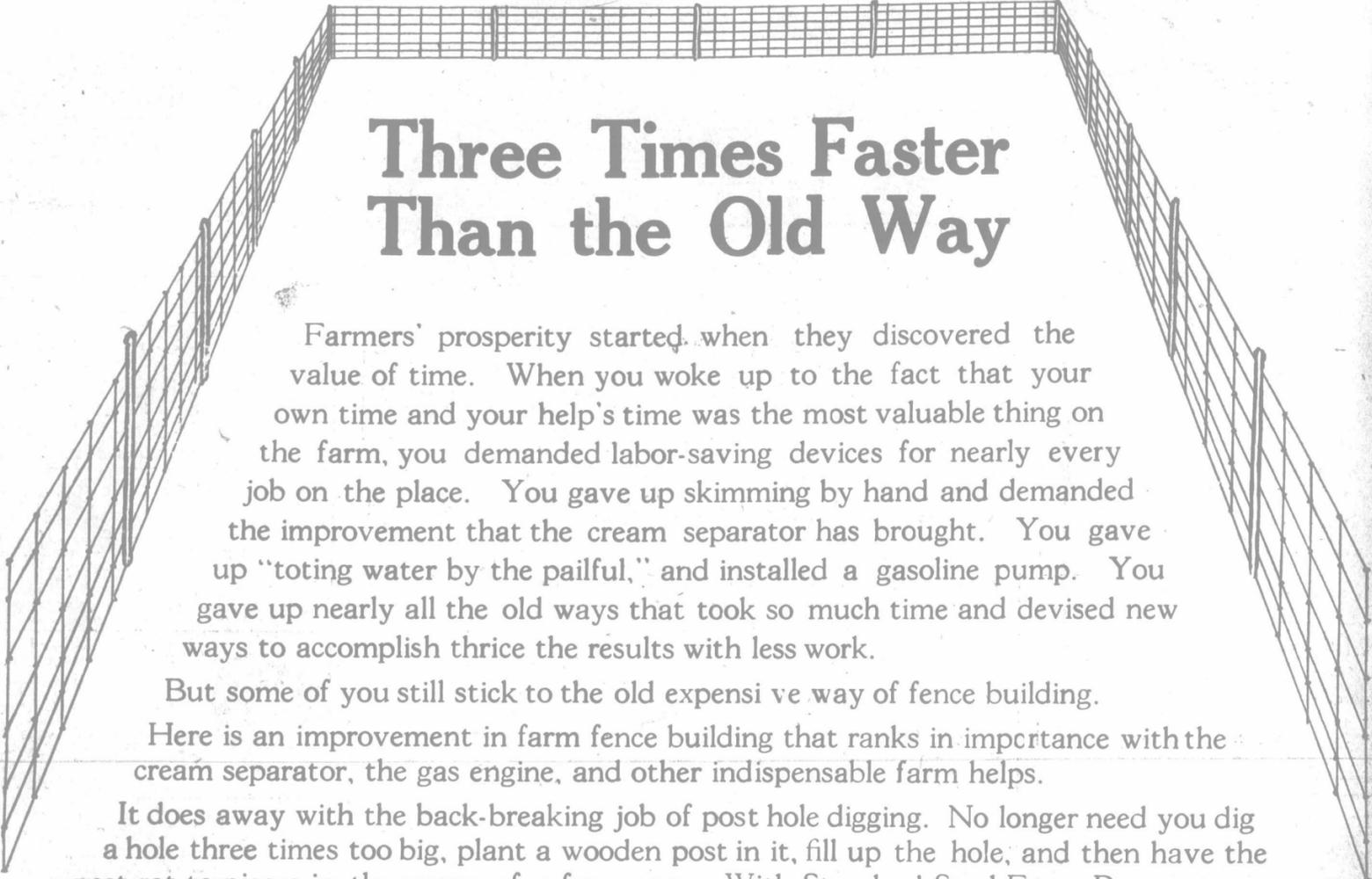
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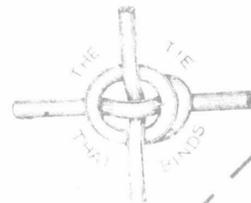
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