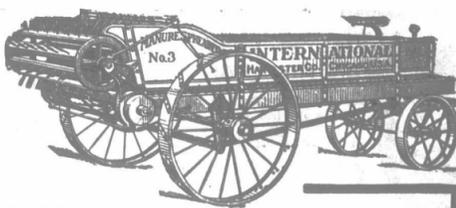


**PAGES
MISSING**

These Are Facts It Pays To Remember When You Buy a Manure Spreader.



IN I. H. C. SPREADERS—Corn King and Cloverleaf—one lever controls every operation. Operator can remain seated from time he leaves the barnyard until he returns.

Self-adjusting, vibrating rake levels the load and brings the manure up squarely to the cylinder.

Cylinder is large and runs easily, and the teeth are long, square, high carbon steel.

Apron is equipped with three sets of rollers attached to slats, running on steel tracks. Is driven from both sides and cannot bind.

Apron drive clutch is automatically thrown out of gear when load is fed out and again when apron has returned. No attention required.

Range of feed is three to thirty tons per acre with ten speeds.

Ends of apron slats are protected so that no manure can work in and bind or clamp the apron.

Driving axle is extra large—made of cold-rolled steel.

Front axle is attached to frame by means of ball and socket joint.

Chain drive, direct from rear axle to cylinder, gives easy transmission of power.

The wheels are steel with staggered spokes. Both rear wheels are fitted with lugs, affording ample traction in wet or frozen fields.

Seat is hinged so it can be turned forward and kept clean while loading.

Box is attached to frame by means of heavy steel cleats.

Frame is made of carefully selected lumber re-enforced at corners by metal braces.

That's a good deal to say of a manure spreader, and yet that is by no means all you should know about I. H. C. Corn King and Cloverleaf Spreaders before you buy.

Those are the main points, and they are sufficient to indicate the superiority of the I. H. C. line. They tell you not to buy a spreader until you have seen the Corn King and Cloverleaf Spreaders.

The key-note in the I. H. C. line is strength and simplicity of construction. Strength in every part means much, for a manure spreader has hard work to do. Simple construction means that it will not get out of order, that it will have light draft and be easily operated. Those are the things you want in a manure spreader.

I. H. C. spreaders are made in two styles, Cloverleaf, an Endless Apron machine, and Corn King, a Return Apron machine; each is made in three sizes.

Call on our local agent or write nearest branch house for catalogue.

CANADIAN BRANCHES: Calgary, London, Montreal, Ottawa, Regina, St. John, Toronto, Winnipeg.
INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.
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TERMS: Total, \$5.00 per acre cash; wholesale (5,000-acre blocks), \$1.00 per acre cash. Balance in five equal annual installments; interest at 6 per cent.

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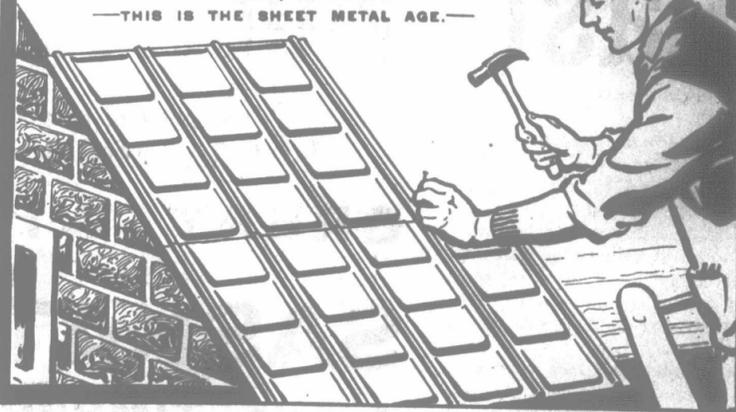
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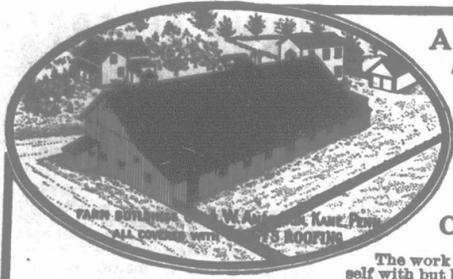
Will improve crop on average 115 bushels per acre. 3 1/2 acres at 40c. a bu. will pay for Spramotor each year.

Adjustable and compensating, and all under control of driver. Pressure from 60 to 150 lbs. at will. All brass. Guaranteed for 1 year in every particular.

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The work was done by Mr. Anderson himself with but knife and hammer as tools. The dwelling shows the neat and economical application of Carey's Roofing. Mr. Anderson writes:

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Ample TIMBER for All Purposes

Prof. Thos. Shaw, after personal inspection, writes: "This rich and beautiful farming section lying in the vicinity of Last Mountain Lake, embraces one of the finest areas in the Northwest. The land is undulating in this region, mostly open prairie. The soil is rich black vegetable loam, from one to two feet deep, and is underlaid with a clay subsoil. Frost, to injure the wheat, is virtually unknown. Being thus favored so highly by nature, it is not surprising that the production of wheat in this region is phenomenally high; in several instances forty to forty-five bushels per acre have been reaped. Oats, Barley, Flax and all small grains yield relatively as good as those of wheat. Potatoes grow most luxuriantly. Two or three years ago there were not more than thirty-five settlers in the entire area; now there are over a thousand, and others rapidly coming in."

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The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

Established 1866.

Vol. XLII.

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LONDON, ONTARIO, MARCH 21, 1907.

No. 756

EDITORIAL.

THE SIMPLE WAY.

In this day and age we are trying to simplify things. Time was when the learned agriculturist was versed in complicated formulæ, indulged in abstruse reasoning, and advocated elaborate methods of farming and stock husbandry. In lieu of useful knowledge, his capacity for these things was impressive, seemed to vindicate his scholastic training, and gratified his conceit. But great minds are those which can grasp and expound essential points clearly, unconfused by intricacies of misty and irrelevant thoughts. Wherefore it happens that the gospel of agricultural science is yearly resolving into its elemental simplicity, and our greatest, safest and most respectfully-heeded teachers are those who emphasize the fewest but most important principles, and advise the simplest methods in all things. A few illustrations will suggest many more to the thoughtful reader.

It is not so very long since agronomists argued for rotations extending over six or eight years, and embracing nearly as many crops. Their reasoning was good, but their method was too complicated, involved many divisions or fields, was too easily upset, not sufficiently adaptable, and, worst of all, was not readily comprehended by the lay mind. Later men, grasping the essential facts of the rotation idea, reduced the cycle to one of three or four years. Their philosophy was easily understood. Clover often to improve and enrich the soil; cultivated fodder crops after clover to utilize the plant food in the clover sward throughout a long growing season, to clean the land and to bring it into fine tilth for a succeeding crop of grain. The barnyard manure was applied before the fodder crop of corn or roots for much the same reason that the corn was made to follow clover, viz., to insure a large vegetative growth. Manure applied directly to grain crops is liable to stimulate too late and heavy a growth of straw. Manure applied a year ahead of the grain crop is more liable to induce a heavy production of grain. The grain crop was seeded to clover and left one or two years for meadow or pasture. Anybody can understand the reason for such a rotation; anybody can follow it, varying now and then, if necessary, without disarranging his general plan. In the long run it gives fully as good results as the other way, and five people will adopt it for one who would study and work out an elaborate system. The simplest rotation is the best.

Many of the stables built a few years ago were fearfully and wonderfully made inside. We have simplified them greatly. The favorite style to-day for a cow barn is to have two long rows of stock facing. Between them is a feed passage, and on each side of it a drop of several inches constitutes the front of the manger. A plank or scantling on edge keeps the feed from getting under the cows' feet. A horizontal scantling overhead, and a swinging stanchion beneath it completes the necessary fittings, except where water troughs or basins are provided. Between the cows there may be partitions, or they may not. Behind the animals is a drop of six or eight inches, from which the floor slopes gently up to the passageway behind. Simplicity here in plan, mangers and floors. It is a kind of simplicity, too, that insures convenience. For beef cattle, many go one better, and dispense with stalls entirely, herding them in comfortable pens, or, as in Halton Co., in a stable bayard at one end of the basement. Dehorned and stanchioned, they are better off thus, make better manure, and are more easily attended to than if stalled in the old way.

In feeding, it is beginning to dawn upon us that no amount of expensive preparation of foods can extract more nourishing quality from them than they contain. For instance, in the corn district we used to cut and husk our corn, then cut up the stalks and shell and grind the grain. It meant a lot of work. Now we slash down the crop, run it through a cutting box and blow ears and fodder into a silo, where it keeps in the best possible condition for feeding. The silo simplifies the work of caring for the crop, saves waste, and enables us to obtain better results than in the old way. There are those who say, also, that sheaf oats will give better returns than the same amount of crop in the form of chopped oats and threshed straw. The difficulty in preserving the unthreshed crop from rats might be an objection to using it this way, but the experience of these men is worth pondering.

Not less important are the changes in farm homes. We used to build large houses, where furniture molded in unused rooms, while our wives drudged to keep them in order, and the family lived in kitchen and sitting-room. When the housewife broke down, search was made for a hired girl, and because young women demurred at the thought of accepting the wages and social status which domestic service seemed to imply, a servant-girl problem arose, and we thought the world was surely awry. Finally we began to ask what was the sense in trying to keep up such large houses for the mere sake of appearances. Now we are building more modest but comfortable homes, adorning them more with trees and grass and flowers, while inside we seek comfort rather than show. In these sensible houses, wives and daughters—where there are any—can attend to the work without making drudges of themselves, and the servant-girl problem is solved in the only satisfactory way short of the millennium, to wit: by dispensing with it entirely.

Nowhere has the revolution been more thorough than in the science of keeping well. Formerly a sick man was dosed with mysterious concoctions of drugs by doctors who looked wise and got paid for it. Their profession was truly termed "practice," and their subjects not misnamed "patients." To-day we understand that nature works the cure, and the doctors assist in the process. Leaving surgery out of view, the doctor is now employed to diagnose symptoms, watch developments, advise, and, in critical stages, to apply necessary stimulants for weak organs, but, as a general thing, the best doctors give the least medicine. Some, whose patients will not be satisfied that they are getting the worth of their money unless dosed with formidable prescriptions, will administer some harmless drugs, knowing that imagination plays a large part in all cures, and if a man believes there is virtue in drugs, they wisely give him drugs so that his imagination may get in its work. But these same doctors are shrewd enough to take little of their own medicine, and it is a standing joke among the profession how many people come to them with fancied symptoms of alarming illness, and being given a bottle of harmless, colored water, take it and come back cured, certain they have obtained the worth of their money. Doctors whose standing is such that they can afford the expensive philanthropy of educating the public a little, will tell you there is far more in nourishment and in nursing than in doctoring, and that for most of the ordinary ills to which human and other flesh is heir, rest, change, cleanliness, sunlight, a little fasting and a gentle physic will do more than many thousand dollars' worth of medical attendance. We are learning the simple way. Ours is an age of common sense.

FORMALIN IN AGRICULTURE.

Seven years ago we entered a village pharmacy to procure a few cents' worth of formalin to treat some smutty seed grain. At that time the uses of formalin were so few and the demand so small that the druggist had to think for a while to remember whether he had any on hand. Since then its agricultural uses have multiplied, and to-day formalin is the most important article that can be kept in the farmer's drug closet. Its virtue lies in its antiseptic, disinfectant, fungicidal and preservative properties, which adapt it for so many purposes that an enumeration of some of the more important will be useful for "The Farmer's Advocate" readers. In passing, it may be worth while to note that formalin is simply a forty-per-cent. solution of the gas formaldehyde in water.

USES.

1. For treating seed grain to destroy the spores of smut. Either of two methods may be used, sprinkling or immersion; the former is the simpler of the two. It consists in sprinkling with a solution of one pound (a little less than a pint) of formalin to thirty-two gallons of water.
2. Treating seed potatoes to destroy the spores of scab. Soak the tubers for two hours in a solution of 8 ounces of formalin to 15 gallons of water. It is advised to plant within two or three days after treatment. This treatment is quite as effective as and very much safer than the use of corrosive sublimate, which was formerly advised.
3. A solution of one part formalin to ten parts water, is said to make the best treatment to prevent joint-ill in colts and white scours in calves. Both of these diseases are caused by specific bacilli, which enter the system through the navel cord of the newborn foal or colt. Washing the cord 3 or 4 times daily with the solution, disinfects it completely, at the same time causing it to shrivel and dry up, thus preventing the admission of germs.
4. For certain forms of calf scours (those not due to mistakes in feeding or mechanical irritation), an internal administration of formalin has been found a satisfactory cure. We recently published an item which related the experience of a man who saved a calf's life by feeding it from a nipple on new milk, in each pint of which he had put a tablespoonful of a solution made by diluting half an ounce of formalin in 15½ ounces of water.
5. For thrush in horses' feet, cleansing and occasional dousing with a solution of one part formalin to five or six parts of water, is said to be the best treatment yet tried.
6. For disinfecting houses, to rid them of the germs of contagious diseases, formalin probably has no equal. The plan used to be to vaporize the gas by heating in a special apparatus, allowing the space to be disinfected to become filled through the keyhole of a door or some other orifice with the pungent, searching gas. Lately, a simpler means of using formalin has been devised. Formaldehyde candles may now be purchased, which, being simply lit and placed in the room, will disinfect it without further trouble. The candles, we believe, are somewhat more expensive than the vaporized liquid, but are more convenient to use.
7. Formaldehyde gas is used by nurserymen to disinfect their stock of San Jose scale and other fungous and insect pests. A load of trees or bushes is hauled into the house, which is then filled with the gas.
8. Formaldehyde is an efficient preservative, and has largely displaced alcohol as a preserving liquid for anatomical specimens, a dilute solution being much used in medicine and surgery, in

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.

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WINNIPEG, MAN.

LONDON (ENGLAND) OFFICE:
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practical, reliable and profitable information for farmers, dairy-
men, gardeners, stockmen and home-makers, of any publication
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with this paper should be addressed as below, and not to any
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THE WILLIAM WELD COMPANY (LIMITED),
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pharmaceutical preparations, and in microscopy.
Under various trade names, it has been put upon
the market as a "harmless" preservative of food
products, but the highest authorities condemn its
use in any quantities as a preservative of foods.

Every year we hear of some new purpose to
which formalin is devoted. It is cheap, and not
violently poisonous, though, taken internally, it
is poisonous, and formaldehyde gas is very irritat-
ing to the eyes—like oil of mustard. It may be
purchased in quantities of a gallon or more for
\$4.00 a gallon. Every farmer should keep a
supply on hand. It should be remembered that
it is liable to waste, being volatile when exposed
to the air, losing moisture and becoming solid.

REGISTRATION REQUIREMENTS.

Judging from the number of letters reaching
this office, inquiring whom should be addressed for
forms of application for registration of pure-bred
stock under the Canadian National Live-stock
Record system, there appears to be defect in the
system, in that the name of no officer is publicly
announced to whom correspondence should be ad-
dressed for entry forms and information as to
registration fees and other requirements. The
fact that four letters from new subscribers were
received at this office in one mail delivery last
week, asking for this information, may be accepted
as evidence of the acuteness of the felt want in
this connection, and although we have repeatedly
published the statement that the half-suppressed
announcement of the Record Board is that all
correspondence for such information is to be ad-
dressed to the "Accountant," it appears that only
higher-degree members are in confidence in contact
with the name of that important official. It is
an awkward arrangement at best, but it would
appear to be only business, and in the interests of
the Record Association, as well as of the farmer
throughout the country, that some convenient
public announcement of the requirements of the
new system of registration should be kept before
the people interested for their information.

THE EVOLUTION OF ROADS.

An interesting story might be written, had we
the space, of Canadian roadmaking. After the
blazed trail and the corduroy, a few arterial
highways that the pioneers and the stage coaches
used were flung across the country, and a net-
work of concessions and side-lines appeared. Be-
ing a new country, land was no object, hence
roads of magnificent widths and imperfect con-
struction. The complicated, go-as-you-please,
statute-labor system of roadmaking and manage-
ment was instituted, the commutation of which,
and the inauguration of the "Good Roads"
movement, ushered in another evolutionary
period, through which the country is now passing.
In the early days, speed in laying the roadbed
was the one essential, hence fundamentals were
disregarded, and people forgot the lesson of other
lands, that even a good stone road for heavy
traffic needs constant oversight. We are learn-
ing slowly the advantages of system, thorough-
ness and simplicity. When we say "system," we
do not imply that the same plan is applicable in
every municipality or on every road, because of
the variations of surface and subsoil, natural lo-
cation, climate and traffic, but certain general
principles are to be observed. Graded to a fair
crown and thoroughly drained first, a light coat-
ing of gravel (not stones and rocks), undoubtedly
gives a better wearing finish to the road, but in a
large proportion of districts it is not available
at reasonable outlay, and, besides, gravel is not
a panacea for all the ills that roads are heir to
in a country of intermittent frosts, snow, rain
and dry spells.

How to care for the earth roads is, therefore, a
live problem. What our municipal machinery
should provide is some means of responsible road
care on every "beat," with drag, leveller and
shovel, so that a hole will not be permitted to
grow into a rut and culverts may be repaired be-
fore someone has a bill for damages against the
municipality. How are these earth roads to be
managed? Once graded and drained, can they be
left to shift for themselves? Most assuredly
not. What they need is surface care. In isolated
cases, the efficacy of this, voluntarily done, has
been proven. What seems to be needed is a more
general demonstration. Recognizing the force of
this, Mr. A. W. Campbell, Deputy Minister of
Public Works for Ontario, as Provincial Highway
Commissioner, has kindly undertaken to superin-
tend and make the awards in a Split-log-drag
Competition, for which two sets of prizes, one for
Eastern and the other for Western Ontario, ag-
gregating \$100, are offered by "The Farmer's Ad-
vocate." According to the conditions, published
elsewhere, there are no entry fees. Competitors
simply make and use the implement according to
directions, at least five times during this sea-
son prior to Oct. 15th. The day for the closing
of the entries, which are to be sent to this office,
is March 27th. Entries are coming in a most en-
couraging way, and we hope to see a very thor-
ough demonstration of what the people can ac-
complish by a simple and economical plan.

WHAT TO DO WITH THE INDEX.

In response to many hundreds of special re-
quests, we are publishing in this issue a full in-
dex of the articles and illustrations in "The
Farmer's Advocate" during the second half of
1906, including the months of July and Decem-
ber. For convenience in printing and mailing,
the index is bound with this number, but is pur-
posely placed in the center of the book so that
its removal will not spoil the number. Subscribers
who have last year's papers on file will consult
their interests by raising the wire stitches, re-
moving the pages containing the index, and past-
ing them at once inside the front cover of the
new July 5th, 1906. It is costing us hundreds
of dollars to publish this index. Make use of it,
it will save time and dollars, and be a great
source of satisfaction in many ways. A volume
of "The Farmer's Advocate" contains more
information for the Canadian farmer
than any other publication in our library.

HORSES.

DR. STANDISH ON HORSE PRODUCTION.

The following address was delivered by J.
Standish, V. S., of Walkerton, Ont., before a New
Brunswick audience. It is good straight talk,
and worth reading:

The subject of horse-production should receive
the serious consideration of every agriculturist,
not only because good horses command such high
prices when offered for sale, and are so scarce in
this Province that many medium animals are an-
nually brought in from other Provinces, but be-
cause they are such a strong factor in all agri-
cultural pursuits, being the motor-power in all
successful farm operations; and, as it is desir-
able to have as much power in every horse on the
farm as can be obtained, I consider it advisable
to produce large horses in every class, whether it
be light harness horses or heavy horses. And I
shall advise the production of draft horses, be-
cause: First, they are useful for farm and other
work, and profitable when offered for sale; sec-
ond, they can be worked younger than other
horses without injury. They can be worked at
two years old, and, if carefully handled, will be
the better for doing so; and the work done should
pay for food consumed until they arrive at a mar-
ketable age, about four years off, when they com-
mand good prices. Third, they are easily edu-
cated; at least every farmer can educate a draft
horse—that is, teach it to stand, to walk well,
and draw a reasonable load. Fourth, they are
not so liable to become diseased, and small blem-
ishes are not so great a detriment.

Now, while I recommend the heavy horse, I
will know that if a man possesses the skill nec-
essary to produce high-class light-harness or sad-
dle horses, and applies that skill, he can get a
higher price for that class of an animal than for
a draft one of equal quality.

I believe every farmer should produce horses
sufficient for his use, and some to sell, as good
horses are as profitable a product as is presented
on the markets. But inferior ones are not; while
ordinary ones will repay production, they are not
nearly so profitable as good ones. Therefore, the
aim should be to produce high-class animals, and,
to do so, the breeder should make himself famil-
iar with the desirable characteristics of the class
he wishes to produce, and he should take the
form and action that commands the highest prices
in the best markets for his standard of excellence.
Then, study the breeds, and decide which one
possesses the characteristics he desires in the high-
est degree, then adopt that breed and stay with
it. Select the best mares he has or can procure—
not necessarily a pure-bred; condition her and
mate to a stallion properly conditioned and of the
desired conformation, and a long line of pure breed-
ing through desirable families—that is, families of
superior merit as to form and action. Keep the
best females, mate them in the same careful man-
ner as at first, and satisfactory results will fol-
low. Castrate all male foals and place on the
market. Never keep a cross-bred or mongrel
animal entire. Never use an entire animal that
is not pure-bred and of the breed your females
are, or are grades of. Be careful in deciding as
to breed in beginning, then stay with it, as there
is not any cross-bred or mongrel that is better
than a pure-bred, and great loss is the result
when cross-breeding is practiced, as by line-breed-
ing it is possible to obtain a pure-bred draft
horse, which is not the case in cross-breeding;
therefore, I will say, decide upon the breed, stay
with it, never cross-bred after the first time,
never use a sire that is not pure-bred and long
line-bred through high-class families, and well
conditioned; raise the foal well, and that should
commence while the mare is carrying it; give suffi-
cient food to keep her well and nourish the foal.
After the foal is born, keep up the supply of food
of a succulent nature. Good grass, a large por-
tion of which is clover, is as good food as could
be desired, and that, with sufficient good water
at all times, is all that is required, unless it is
necessary to work the mare, in which case it will
be better to give some oats to the mare. Before
weaning the colt, which should be at about five
months old, teach it to eat a small quantity of
oats and wheat bran mixed, and wean by allowing
it to suck twice a day only for a few days, then
once a day for a few days, and once in two days
for a time, giving a reasonable quantity of oats
and bran, plenty of grass and water, and it will
keep up in flesh and grow well. Then, for the
first winter, give sufficient food and water, with
plenty of exercise. The food, if convenient, to be
composed largely of good clover hay, some oats
and wheat bran; a small quantity of flaxseed;
some oat straw and wheat chaff, with roots,
preferably turnips, but mangels, sugar beets, car-
rots, or a few potatoes, are good food. Keep the
feet levelled when needed; that is all that is re-
quired. In the spring, turn to grass and water.
The next winter feed as during first winter, only
a greater quantity of food will be required; and in
leisure time educate the colt to stand, to have its
feet handled, and to stand on three feet and have
the one held up and tapped with a hammer; make

it bridle wise, and educate it to the harness, teaching it to walk well and draw light loads; put to reasonable work in the spring, feed well, and work until marketable age, and offer on any good market and a satisfactory price will be obtained, while considerable pleasure and profit has been enjoyed while producing the money obtained.

As to breeds, there are four recognized, viz.: The Clydesdale, Shire, Percheron and Belgian, and not one of them has a patent on draft characteristic, and all have good individuals and families in their breed. Therefore, it is not only the breed that requires considering, but the care, feed and education as well. One very important thing in horse-producing is the conditioning of the sires, which cannot be done unless the animal be exercised regularly. The same applies to the mare, and I like to have them worked, of course, in a reasonable manner.

MANITOBA HORSE-BREEDERS MEET.

At the annual meeting of the Manitoba Horse-breeders' Association, held at Brandon, February 20th, the following resolution was unanimously adopted:

"Whereas the annual meeting of the breeders' societies—the Dominion Clydesdale Association, Shorthorn Breeders' Association, and other kindred associations—are held at different times at Toronto each year, thereby making it impossible for Western men to attend these meetings; therefore, be it resolved: That in the opinion of this Association such meetings should be held about the same time, and that we consider a suitable time would be about the time of the Winter Fair at Guelph each year."

The election of officers resulted as follows: President, John Graham, Carberry; Vice-President, John Wishart, Portage la Prairie. Directors representing the various breeds—Clydesdales, Andrew Graham, Roland; Shires, E. A. Stout, Westbourne; Hackneys, T. Jasper, Harding; Thoroughbreds, W. W. Fraser, Winnipeg; Standard-breds, Stephen Benson, Neepawa; Shetlands, Jas. Bray, Portage la Prairie. Auditors—Geo. Batho and Dr. A. G. Hopkins. Representative to Winnipeg Exhibition, Dr. S. J. Thompson; to Brandon, Will Nicoll; to Killarney, J. G. Washington; to Neepawa, H. Irwin.

The Clydesdale men passed a resolution, asking the Dominion Clydesdale Association to appoint John Graham, of Carberry, the representative on their directorate of the Manitoba breeders of Clydesdales, which was done.

CLYDESDALE REGISTRATION.

At a recent meeting of the directors of the American Clydesdale Association, on motion of Mr. Houser, seconded by Mr. Clarke, Rule 4, referring to registrations, was so amended as to read: "Imported Clydesdale stallions or mares by sire and out of dam both recorded in the Clydesdale Studbook of Great Britain, whose sires and dams are also recorded and bearing registration numbers in such Studbook," are accepted for registry in the American Clydesdale Studbook.

LIVE STOCK.

LIVE-STOCK LECTURES AT OTTAWA.

We publish below a digest of the lectures on live-stock subjects delivered at the Eastern Live-stock and Poultry Show:

THE SHEEP INDUSTRY.—Less than fifty people were present to hear the lectures on the sheep industry. Prof. G. E. Day, of Guelph Agricultural College, spoke encouragingly upon the advantages of sheep-raising to the average farmer. He pointed out the dual product of wool and flesh, and also the inexpensive buildings and little labor required in connection with a flock of sheep. The advantages were well brought out, as well as the benefit done the soil by the tread of the golden hoof.

Mr. Robert Miller, of Stouffville, Ont., spoke upon the prospects of the industry. He stated that it was exceedingly bright both for the raiser of mutton and the pure-bred flock for breeding purposes. At the present time practically all of the breeders of pure-breds are sold down close. Last year Mr. Miller sold to one customer \$25,000 worth of sheep, and these, he believed, have given their breeders a profit of from 30 to 40 per cent. He has during the past few weeks been compelled to refuse orders for large lots because the sheep could not be procured even at high values. Mr. Miller sees a great outlook for mutton and lamb, because both Canadians and Americans are rapidly acquiring a taste for the flesh of these animals. Butchers are learning to mature the meat on the hooks, which greatly improves its flavor and tenderness. The flesh is most wholesome, and every farmer who keeps even a small flock can have fresh meat on his own table whenever he chooses at little cost. While sheep need less care than most other farm animals, they should not be neglected. It does not do to fence in a flock of sheep in spring and leave them weeks and months without further attention, even though they have plenty of grass. They should be seen each day, and a change of pasture once in two or three weeks is very beneficial to the flock.

In answer to a listener, Mr. Miller stated that a head of sheep in a cattle pasture would do no

harm, but a large flock would injure pasture for cattle stock. He considers one breed about as good as another, as far as money-making is concerned.

At the conclusion of Mr. Miller's address, Mr. C. C. James, the chairman, prophesied continued high prices for all farm produce. His reason was the unusual output of gold, which, on account of its plentifulness possessed a lower purchasing power.

Mr. John Jackson, with a model Southdown wether on the platform, demonstrated the correct method of judging sheep. He went over the animal point by point, showing what a judge should look for. He showed the necessity of handling the body carefully, in order to be assured that the eye is not deceived by the wool trimmer's art. Mr. Jackson stated that judging at fairs is much better done than it was years ago, before judging schools were held.

THE BACON HOG.

The session devoted to the bacon industry was presided over by Mr. C. C. James, Deputy-Minister of Agriculture for Ontario, who at the conclusion of each address and discussion upon a subject presented valuable deductions and observations upon the questions at issue.

The winter housing of swine was treated by Messrs. J. E. Brethour, of Burford, and Wm. Jones, of Zenda. Mr. Brethour has arrived at the conclusion that the housing of swine is a necessary evil. When one has a large number of hogs the less housing they get the better it is for their health and thrift. This winter Mr. Brethour has fifty brood sows running in the open with only an old barn with a straw loft overhead for protection. They are fed outside all the time, which demands that they take exercise, thus keeping them in

straw. This allows the escape of moisture, and provides ventilation. Cement floors, more particularly where the pigs sleep, were objected to for the reason that they are usually damp and cold. He uses sleeping platforms about four inches above the floor. These are always dry.

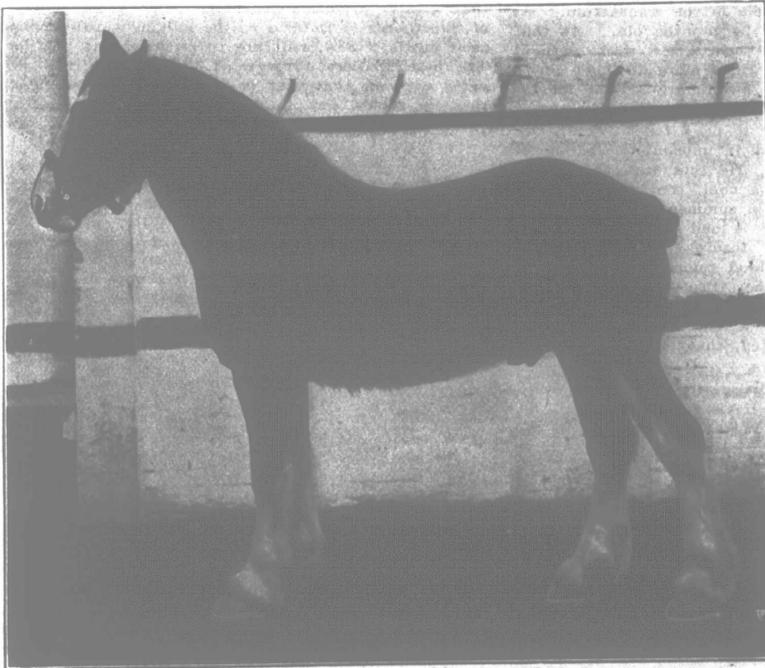
The chairman, at the conclusion of the discussion, made the observation that the speakers had brought out the fact that hogs required about the same general conditions as the human family if they are to do well. These requirements are comfort, wholesome food, pure air and plenty of exercise.

THE COST OF PRODUCING PORK.

Prof. G. E. Day, of the Ontario Agricultural College, reviewed the results of feeding tests on farms over Ontario last year, with a view to finding out the cost of producing pork. He stated that the work was suggested by one of the large packing firms, who agreed to pay a premium of 50 cents per cwt. for all hogs for which a report was made by their owners, showing the quantities of food they had eaten from weaning time to marketing. He stated that this investigation had drawn forth much criticism, and to some extent the charge had been made that he was somehow in league with the packers in proving that pork can be raised cheaply, and further that farmers must of necessity raise more hogs to supply the packers. He made it clear that the cost of raising hogs could not influence the price paid for the finished product, which is entirely governed by the supply and demand. He explained the purpose of the investigation, and reported the results which have already been published in "The Farmer's Advocate." The audience accepted the report without much criticism or controversy, as was the case at the Winter Fair held at Guelph in December.

MORE BACON HOGS FOR EASTERN ONTARIO.

Mr. C. W. Bowman, manager of the Montreal Packing Company, was advertised to deliver an address upon the advantages to Eastern Ontario farmers of producing a large number of hogs suitable for the export bacon trade. In Mr. Bowman's absence, Mr. W. H. McNish, Lyn, Ont., spoke upon this subject. He contended that Eastern Ontario, being a dairy-raising district, possessed conditions that were not surpassed by any other for the raising of bacon hogs. He stated that hog raising and dairying were twin industries, neither of which could reach its highest success without the other. Where cheese and butter are made, hogs are needed to turn into profit much that would go to waste. Taking eighteen counties east of Toronto, the speaker stated that not more than one pig per cow kept was being produced. He argued that at



Baron Columbus (imp.) [6106].

Clydesdale stallion; bay; foaled in 1905. Sire Baron of Buchlyvie. First in class, Ontario Horse Show, Toronto. Imported and exhibited by Smith & Richards n. Columbus, Ont.

least four pigs per cow could be turned off to advantage. Eastern Ontario has half a million dairy cows, and should produce yearly two million hogs, worth, at least, twenty million dollars. Mr. McNish could see no risk of overstocking the bacon market, since the United States is not increasing her hog production as rapidly as her population, which means that less and less of their hogs will be sold to the British people. This leaves more demand for Canadian bacon. On the way to Ottawa, Mr. McNish observed a carload of hogs from the County of Essex, which were on their way to the packing-house at Hull. Eastern Ontario has a great opportunity before her, in the way of an excellent market near at hand at Hull, and Montreal, where several large packing-houses are in operation, all of which need far more hogs than they can secure.

Mr. Brethour considers the movable cabin the ideal house for wintering swine. He would have them warmly constructed and free from drafts, but the doors so arranged that the pigs can go out and in at will. He would have them portable if possible. Pigs do very well in these cabins after they are three months old. Pigs being finished for market are better housed more closely, as in this way gains are more cheaply made. Farrowing sows should be kept separate from other pigs, and a stable where cattle are kept is an ideal spot for both sow and litter.

In answer to a question about cooking food, Mr. Brethour stated that he feeds all feed steamed and warm, but he did not consider it profitable to spend much on steaming food for only a few head. All his hogs are fed warm feed the winter through. He finds no difficulty from getting sows too fat when they have plenty of exercise in the open air which keeps them active and hardy. Exercise, fresh air and generous feeding is Mr. Brethour's motto.

Mr. Jones agreed with Mr. Brethour in regard to the importance of exercise and outdoor life. He considers the simplest pen constructed with regard to the teachings of common sense the most satisfactory. Pens should be as dry as possible, and a wooden pen was considered the best. He advocated a ceiling with spaces between the boards, and the loft filled with

Mr. James concluded the session in a brief speech, in which he pointed out that Eastern Ontario is raising a fairly large number of hogs, but a comparatively small number of these are of the bacon type. The wisdom of turning more attention to the bacon hog was shown in the statement that Canada has a limited home market for fat pork, with no outside demand; while our home market for bacon is large and growing, we have also practically an unlimited market for bacon in Great Britain. The hope of the Canadian hog-raiser is the production of the sort that finds favor as bacon in the large consuming centers.

BEEF RAISING.

The session devoted to beef-raising was well attended, there being about 200 persons in the lecture-room. Prof. Day outlined what he considered the most

profitable method of raising steers. When calves cannot be allowed to suck their dams very good growth can be got from skim milk after they have reached the age to feed well. He described the method of a man who raises good calves without milk after they are five weeks old. They get whole milk for five weeks, and then gradually fed gruel made of oil meal. The change from all milk to all gruel takes about two weeks. Prof. Day recommends boiled flaxseed rather than oil meal to be fed with skim milk, because the oil of the seed takes the place of the removed cream. He warned the audience against making too radical changes in feeding. He would commence with one tablespoon of flaxseed at a time, and increase it to half a pound in two weeks. It should be well boiled. The calves are taught to eat as early as possible. The evils of over-feeding were dwelt upon. It was pointed out that under-feeding was less dangerous to the health of the calves. Ten pounds of milk per day up to five weeks old was said to be the maximum for safety. It may then be increased to 15 pounds or 18 pounds during the next two weeks. Twenty-four pounds of milk was said to be the most that any calf should receive in one day. As supplemental food, oats and oil cake is a good mixture. Prof. Day prefers ground corn and oats for calves getting skim milk. The too common practice of under-feeding calves the first winter after weaning was strongly condemned as unprofitable. Their growth should be continuous.

Speaking of the cost of gain at different ages, the average of a large number of feeding trials conducted at experiment stations was given as follows: From 1 to 12 months ranged from \$1.87 to \$4.20 per cwt.; from 12 to 24 months, \$6.13 to \$8.12 per cwt.; from 24 to 36 months, \$9.59 to \$12.54 per cwt. He argued from this that the earlier a bullock is finished and turned off the more profitable is the transaction. As a rule, steers should go at 24 months old. At that age a finished steer may be held a few weeks without loss, while an older steer costs more to hold for a higher market. Again, the buyers are looking for the younger ones.

On being asked whether it pays to feed grain on grass, Prof. Day considered it unprofitable to do so when the pasture is good. He told an enquirer that calves should be housed in a cool, roomy, clean building, such as a sheep house in summer. To keep them in a close, dirty box stall is bad practice, from the standpoint of the animals' future. Milk, he stated, should be always fed at blood temperature. To prevent calves sucking each other, Prof. Day recommended stanchions, which can be closed while they are taking their milk. After the milk a little meal should be fed before the calves are liberated, thus no sucking will be indulged in.

THE DUAL-PURPOSE COW.

Mr. J. G. Clark, of Ottawa, the well-known breeder of Ayrshire cattle, addressed the gathering on the possibilities of building up and maintaining a dual-purpose herd. He took the ground that it could be done, but the man who undertakes it must be satisfied with less profit than either the special-purpose dairy farmer or beef-raiser. The speaker said that up to 1887 he owned Shorthorns and their grades, and quit them because quite half of them were such poor milkers that the other half had to keep them. He claimed to have done his best to use sires from milking families, but he could not get his herd up to a profitable state of production. Every farmer should seek to get the best milkers he can, but unless dairying is to be the chief business the beef form should be striven for. To try to get much of both is to get neither in a paying quantity. In his opinion the farmer who endeavors to produce the strictly dairy cow will get larger returns, proportionately, than he who tries to get both dairy and beef. Conditions vary so much, however, that every man must settle the matter for himself. The dual-purpose cow is a necessity in producing beef profitably, and can be developed sufficiently to aid materially in keeping the balance on the right side, where beef production is the mainstay of the farm, without injury to the quality of the beef animal. On the farm, situated in a district where the product of the dairy can be conveniently marketed, it will pay better to use a good dairy-bred bull and leave beef entirely out of the question. If we concede that the dual-purpose cow is a possibility for the dairy farmer, Mr. Clark asked how can we get her? Are we safe in looking to the so-called milking Shorthorn for sires? The speaker instanced the case of twelve cheese-factory patrons, who sent in their reports for prizes in the Western Ontario Dairymen's Association competition. These ranged in their average returns from \$62.50 to \$40.61, and the lowest were grade Shorthorns.

In the dairy-test competition there has been a prize of \$200.00 held up for years to be won by a Shorthorn cow that can score the highest points in the show. Although there are more Shorthorns registered in Ontario than all other breeds combined, that prize has yet to be won. At Guelph, in spite of all that has been said about milking Shorthorns, there was only one cow that scored high enough to win a prize at the show of 1906. Here at our own show, surely none of them reached the standard required for a prize. Another case in point was cited: A gentleman well known to many bought a Shorthorn cow that figured high in a dairy test. He was so well pleased with her that he bought two others of the same strain, expecting they would also be good milkers. He was very much disappointed. He said that it is well

develop milk production in the beefing breeds, but always keeping beef production as their proper sphere of profit. The dual-purpose cow has a place on beef-producer's farm. The man who wants to keep his sons satisfied milking cows to-day, must keep cows that will make it worth their while, concluded the speaker. In reply to Mr. Clark's expressions of lack of confidence in the milking Shorthorn, Mr. Robert Miller stated that fully 90 per cent. of the milk supply of the City of London is produced by Shorthorn cows. This, he stated, is done by farmers who must secure the greatest possible profits from their farming operations in order to live. Mr. Clark wanted to know why none of the bulls from these cows were ever imported, and he was told that such a bull would bring about \$100 in Canada, while the thick, Scottish kind bring \$500 per head.

Mr. Robert Miller closed the session by a lecture on judging beef cattle, demonstrated by the champion steer. Replying to a question as to how this steer was reared, his owner, Mr. James Leask, of Greenbank, said that he had suckled his dam for nine months, and he had about all the chopped grain (chiefly oats), pulped roots and clover hay he could eat during the winters, and grain and green feed in summer during his two years of age. He had never been allowed to graze.

BEEF, WITH ALL THE MILK WE CAN GET.

Editor "The Farmer's Advocate":

Mr. Good, in your issue of the 7th inst., requests that I should define my views a little more explicitly as touching two or three questions which he raises. No one will mistake my meaning in taking the position that greater attention should be paid by the breeders of Shorthorns in Ontario to the milking capabilities of their cattle. Few will care to criticize that position. The best breeders advocate it. But Mr. Good will agree with me that that is scarce the same as saying that we should seek to develop a dual-purpose strain within the Shorthorn breed. The mutton sheep grows wool, but the attempt to improve, in some degree, the quality of that wool would not be misunderstood to mean that the purpose of that attempt had been to create a "dual-purpose" breed of sheep. Mutton sheep are still mutton sheep, even though they grow wool. Beef cows are still beef cows, even though they give milk. I think my article suggests my reasons for believing that the adoption of the dual-purpose standard would be an unwise and unprofitable policy, and these suggestions need not be repeated now.

Will not the above remarks answer Mr. Good's other question about the nomenclature of the cow that will suckle three calves in the season? The breeding and the purpose in selection will have something to do with the classification of such a cow, and breeders of beef stock do not consider it a lack of merit in their cattle in the evidence of their capacity to give milk. Further, it has been with the idea of economizing in labor and in expense that the above method of raising calves has been followed. The milking of cows, the separation of cream, the making of butter and the feeding of the calves involves an expenditure of time, and, therefore, money, and it is still my belief that when the farmer desires to make money out of the dairy business he will be wiser to breed and milk dairy cattle, cater to a special dairy market, and do it in a co-operative way. Mr. Good further asks where calves can be obtained to put on such a cow. Sometimes they can be bought to advantage. Again, the farmer on a hundred acres can only keep a limited number of cattle. Making allowance for calves and young stock, he will, therefore, only be able to keep a limited number of cows. He will need to milk two or three of these to obtain milk for his own household. It can usually be arranged that, among a number, some will come in at about the same time, and the possibility of doubling up in any case frees the farmer from the necessity of milking one cow for the season, since a calf can usually be obtained to milk the cow for the second five months. This has been a common practice on many farms.

We all recognize that this is a controversial question. We can scarcely all expect to agree upon it, and I must thank Mr. Good for the courtesy of his request. It has been my desire to take a reasonable view in the discussion, and I trust that it may be so understood.

H. S. ARKELL.

FOR HOME-BRED CATTLE, HORSES, AND BOYS.

Editor "The Farmer's Advocate":

How is it that imported stock is thought so much better than we can raise in Canada? Some claim that we get fresh blood, but I would like to know where they get the fresh blood in Britain. Have not some of their best breeders bred a great deal closer than the breeders in Canada?

We have the feed and the stables, and the men to feed stock. If we had the market they have, I don't see why we should need to take a back seat.

We have been getting a lot of boys imported here these last few years, and if we get fresh blood I think it is a very poor quality. I would rather have one Canadian boy than half a dozen imported ones, and I don't care if the cattle and horses that are imported are the best either.

A SUBSCRIBER.

MORE ABOUT SHEEP AND DOGS.

Editor "The Farmer's Advocate":

Possibly some of your readers are thinking I am dead and buried, or else so much ashamed of my article in your issue of January 17th, page 94, that I have run away to parts unknown. To any who may be entertaining such notions, I would say I am still living on the farm on which I was born, and in the enjoyment of fairly good health, notwithstanding somewhat severe criticism by some writers. I have just been saving my powder till the other fellows had burnt theirs, and now, if you will be kind enough to grant me space in your valuable paper, I will reply to some or perhaps all who chose to criticize me so severely, and I suppose the better way is to take them in the order in which they appear. The first I noticed is on page 202 in your issue of Feb. 7th, over the signature of R. L. Holdsworth. He states that I complain of the injustice of taxing dogs and using the money to reimburse owners of sheep for their losses by dogs. Now, anyone, by referring to my article of January 17th, can see that I am not complaining of taxing dogs. I advocate taxing dogs. I am only complaining of the unfairness of using said taxes as a fund to pay for sheep destroyed by dogs because that, in providing the fund from the dog tax, the man having no sheep at all pays as much into the fund as the man who might have a hundred. In reading his article still further, I notice that he makes the statement that I suggested that the tax remain at \$1.00. He must have completely lost control of his pen, for if he and the rest of your readers will refer to my article, they will find that the word "remain" does not occur in the whole article. What I said was that my plan would be to tax one dog \$1.00, and double for every extra dog, etc. The reason I said \$1.00 is because that is all the statutes will allow, as they are at present; but I have no objection to the tax on dogs being raised, because each municipality requires a certain amount of money, and if they get a goodly sum from dog tax, our taxes on other things will be lighter, provided the dog tax goes into the general fund. It would appear that Mr. Holdsworth must be very much afraid of dogs while travelling on the highways. I am not a very young boy now, and I have travelled on the highways by day and by night, and I have never experienced any inconvenience worth mentioning from dogs, neither while walking nor driving. If a dog comes out when I am passing, I do not take my whip and apply it to my horse and try to outrun the dog, but slow my horse to a walk and talk to the dog in a pretty emphatic way—I do not mean that I swear at him, as that is as useless in the case of dogs as anything else—and give him to understand that it would be better for him to go home and mind his own business and that I would mind mine, and invariably the dog walked off as if ashamed of himself. I tell you, Mr. Editor, I find less difficulty in teaching the most of dogs what is right for them to do than to teach some men what is right for them to do.

The next writer, Mr. Misner, on page 203, thinks I did not go far enough. I hope this will please him in that respect. His ideas about some things are fairly good, but I am afraid he will have a good deal of trouble to put them into practice.

The next I will notice is an article by Mr. "Keep Off Your Dog." He thinks I give funny reasons for owners of sheep to insure their sheep against loss. Examine all the articles carefully, and you cannot fail to see that it is insurance on their sheep against loss that they are all wanting, and, Mr. Editor, is it not the owner of the goods or property to be insured that always insures and pays for insuring? We very frequently hear the statement that because dogs kill sheep all dogs should be taxed to provide a fund for the payment of sheep worried by dogs. Just at first sight, this statement may seem all right, but on closer examination it is not hard to see that it is all wrong. There are but a very small per cent. of dogs that kill sheep, and when they are discovered, it is right that they should be destroyed, and that the owner of such dog or dogs should pay all damage done, but it does not at all follow that the owners of dogs which are doing no harm should be expected to furnish a fund to pay the loss done by others, and we must judge all dogs innocent until they are proved guilty. Let us compare parallel cases. Fire is a destructive agent, and causes great loss. Would anyone who is not insane argue that because fire causes great loss, everyone owning or using fire should pay a fixed sum into a fund to reimburse parties coming to loss through fire? Is it not the parties who want their goods insured that pay for insuring, and pay for such insurance in proportion to the value of the property insured? Some men steal, and cause great loss to their brethren by their unlawful conduct. Who, I ask, but an inmate of an insane asylum, or one who ought to be an inmate would think of arguing that because men steal, all men, old or young, high or low, rich or poor, sick or well, honest or dishonest, should be taxed (and that to the same amount) to reim-

burse the unfortunate one who lost; and is it not equally absurd that, because some dogs kill sheep, all dog-owners should pay a fixed sum into a fund to reimburse owners of sheep who have come to loss through dogs?

Now, I must close, as I feel I am taxing the space in your valuable paper too much. My apology for doing so is, that I have some very thick skulls to deal with. Perhaps some of your readers may think I am some good-for-nothing scamp who owns nothing but a dog and a gun, who does nothing but tramp through swamps shooting. To such I would say I never owned a gun, and never spent half an hour hunting. I might say, too, that I own as large and as good a flock of sheep as the average farmer; but I do not want those who have no sheep at all to pay as much into a fund to insure them as I do. I want justice to all parties. ALEX McCaIG, Wellington Co., Ont.

BELIEVES IN WATERING IN STABLE.

Editor "The Farmer's Advocate".
In reply to the questions asked re the watering of stock, I give you my system. I have the pipes-and-basin system all through my stable. My well was dug underneath the barn. The pump-head high enough to throw the water into the tank at one side, the water runs from there to the regulator, then throughout the building. The system I have is about as expensive as any to instal, but I consider it the best. I know of other plans that cost much less, and, I suppose, work satisfactorily. The cost of my system was \$55; to this, add the tank referred to in a previous issue, \$3.50, and 50 cents for a barrel to stand in the passage in front of the horses, from which they are watered with a pail, making the total cost \$59. I have basins enough for thirty head of cattle. If I were putting it in to-day, I could get it put in for \$10 or \$12 less. The cost of the well, of course, depends on the depth. Mine cost, for digging, brick and pump, about \$22. I have been pumping by hand; we have the handle low enough so we stand on the cement floor. It has the draw from the center, with two side arms as long as required to have the handle to which they are attached low enough to reach, and the spout is above the handle. It works well. I am fixing it to run with a dog wheel, and, by the way, for pulping roots or pumping water, the dog wheel knocks all other powers silly. The cost is small, and most dogs enjoy the work. There are scores in use in this section. This is the second winter for my water system. Its advantages are: Less labor; the cattle get a drink just when they feel like taking it, and it is not ice-cold, as it would be if outdoors. Milking cows, I am satisfied, will do better with the water always before them. As for disadvantages, I have failed to find any yet. The only thing I find against leaving the water before them is (and I don't call it any disadvantage) we get into the habit of leaving the stock in the stable a little too much. Still, if a person wills, he need not get into that habit. It may be a touch of laziness; quite a bit of work, you see, to let out the cattle and tie them in again. On the other hand, I think it would be a blessing to the stock and money in pocket to the owner if there was something to encourage their being kept in more by a great many farmers. As you drive along the road, or look across to the neighbors' and see the cattle standing around the stack or hugging the side of the fence from early morn till late at night, shivering with the cold, perhaps having forty rods or more to go to get an ice-cold drink, it is not human, much less profitable. I do not advocate keeping them in all the time; let them out every day or two for an hour if it is not too cold. I think it is folly to build warm stables and give stock plenty of feed, and then turn them out to drink cold water and shiver.
Summing it all up, I consider a farmer cannot spend his money to better advantage than to place the water before his cattle in the stalls by whatever system he chooses to suit himself. I would not be without it if it cost twice what it did.
South Huron. SAM. J. PYM.

\$96 WORTH OF VEAL FROM ONE COW.

Ninety-six dollars' worth of veal calves is a pretty good year's production for one cow, but down in Halton Co. last month we saw a three-year-old heifer which was suckling her eighth calf, besides having been milked a month by hand. She was a smallish, plain-looking heifer, owned by Mr. W. S. Chisholm, of Mansewood, Esqueving Township. As a two-year-old, she freshened on April 12th, 1905, raised two calves that brought \$12 each, and was hand-milked till March, 1906. She calved again the last of May, 1906, and raised two more calves, each of which sold to the local butcher for \$12 when 200 pounds in weight. The heifer was then milked a month, but, being hard to milk, calves were employed to continue the job. Most of the time she was nursing two. As soon as a calf attained a weight of 200 pounds it was sold for \$12 to the butcher. At the time we saw her she was suckling her eighth. This

would make \$96 in calves, besides the month's milk. It looks like the easiest money we have ever seen turned off from a cow—and she was only a heifer at that.

LIVE-STOCK RESEARCH.

"No nation that does not throw its intensest interest and expend the bulk of its force upon the cultivation of the soil can become or remain permanently great." Mr. J. J. Hill's prophetic address at the Minnesota State Fair, from which the above is a quotation, receives significant if unintended witness to its truth in the recent annual report of the Union Stock-yard and Transit Company, of Chicago. Discussing the future of American agriculture, Mr. Hill, with the vision of a seer, drew attention to the rapid disappearance of arable public land, and to the probable increase in the next few decades of the country's population, and confronted his audience with the problem of the world's food supply. In a masterly way he compelled a consideration of the importance of agriculture in its foremost place among the nation's industries, and into the realm of an imperative national duty he relegated the problem of the sustenance of the people yet to be, which might find its sole solution in the attention given now to the productive development of intensive agriculture.

Chicago is the greatest live-stock market of the American continent, and probably the greatest transportation center of the world. In 1906 there were recorded receipts of nearly 16,000,000 animals, with a total valuation of over \$317,000,000. The shipments of cattle were 40.6 per cent. of total receipts; of hogs, 24.0 per cent., and of sheep, 28.0 per cent. The size of the market, with its consequent influence upon or even control of most of the other larger markets, place

1905, were sold for the largest total amount ever realized in a year from sales of horses on any market." While there was a decrease in the number of head of live-stock received during the year, yet there was some gain in average weights, and a substantial increase of prices, especially for hogs; so that the total valuation exceeds last year by nearly \$17,000,000.

Present conditions indicate that there is no longer a great waiting surplus of cattle or of hogs in the country, and firm values are expected for both. In reference to cattle, it may be quoted that the higher prices were paid for the choicer grades. Apparently meat products are not being produced in excess of demand, and, in the opinion of the best judges, the situation is decidedly encouraging for the future as to prices. The country seems unable to furnish an adequate supply of draft horses of sound quality, bone, and good conformation. Never before has there been such a demand, and prices have ruled accordingly. Drivers, coaches and carriage pairs are also selling at record prices. "There is no uncertainty as to the future of the horse-breeding proposition, provided the right kinds are produced and properly fitted for market."

A comment is made upon the magnitude of the live-stock industry, in that the live stock of the country is valued at over \$4,000,000,000, and we have the statement that the industry seems to be entering upon a new era of better conditions and better prices, with the prospect of the most prosperous year in its history. The admonition is given, however, that the industry must be safeguarded by the production of more corn, and that it can find fullest development only in the realization of reciprocity. There is recognition that the corn or grain raising area cannot be materially extended, and, therefore, that only by intensive methods of agriculture can the industry keep pace

with the increasing demand for meat products at home and abroad in correspondence with the growing population of the country and of the world. But further provision for more complete reciprocity with consuming nations promises a direct benefit in a material way to the American farmer in making possible an interchange of surplus commodities. The welfare of the nation depends upon the prosperity of the farming community, and it is to the mutual benefit of all nations that there should be reciprocity in the marketing of the food products of the farm.

Not valueless to the Canadian farmer are the lessons to be drawn from the report of this great world market. Conditions there must necessarily reflect and exert an influence upon our own. May we gather, also, food for thought from the prophecy of Mr. Hill's speech in the light of this report, and be careful to providently husband the natural heritage and resource of the farm. There is a future, too, for Canadian agriculture. BRUCE.



Bachelors' Hall.

it in a position to very actively reflect the status of the live-stock industry of the United States, or even of the American continent. Very briefly, then, may we give a digest of the substance of the Chicago Live-stock Company's report, with a further word or two upon its comments upon the general live-stock situation.

The receipts during 1906 at the Union Stock-yards, Chicago, were the largest on record for sheep and calves, but there was a decrease of cattle, hogs and horses to a total for the year of 9,521 cars of live stock, or about 3 per cent., as compared with the receipts of 1905. The average weight of cattle, eliminating calves, was 1,112½ pounds; of hogs, 232½ pounds, and of sheep, 81 pounds. Choice steers advanced materially over last year's prices, but there was a depression in price of medium and inferior grades during a part of the year, due to the agitation against the packing-houses. On the whole, the highest prices were realized in December. Hogs advanced in price over \$1 per 100 pounds, with a yearly average of about \$6.30. There has been a tremendous demand for pork and pork products both at home and abroad. The forthcoming supply of hogs all over the continent has been somewhat under normal, and, with the growing demand, high prices are expected. The lowest price was paid in January and the highest in July. Although there was an increase of 68,891 head in receipts of sheep and lambs over 1905, the high average prices of that year were fully sustained. Average values ranged from \$4.80 to \$5.70 for sheep, and from \$6.25 to \$7.46 for lambs. "The public demand for mutton is still growing," and with little prospect of any great increase in supplies, present values are likely to be maintained. A feature of the year has been the unprecedented strength of the general demand for horses. "The total receipts of 126,979 for the year, or only 271 less than the record number of

source of the farm. There is a future, too, for Canadian agriculture. BRUCE.

INSPECTION OF FEEDING STUFF.

In response to an enquiry regarding the Federal oversight of feeding stuffs for the use of stockmen, Hon. Wm. Templeman, Minister of Inland Revenue at Ottawa, advises us that there is no bill before Parliament dealing with this matter, and it is not the intention of the Government to introduce one at this session. The subject, however, was raised for discussion during the passage of the bill for the inspection of canned foods, in charge of the Hon. Mr. Fisher, Minister of Agriculture. Mr. George Taylor, M. P., read a letter from one of his constituents, complaining of the imposition of farmers being sold, at fancy prices, under fancy names, foods of very little value. In addition to that, a great deal of refuse from mills and cereal works was sold, he declared, at from \$22 to \$26 per ton, when really it was more fit for fuel than feed. It should be sold for what it is, and farmers should have some means of knowing its feeding value.

Hon. Mr. Fisher conceded the force of these contentions, but had as yet been unable to discover the machinery to meet the difficulties of the situation. It was foreign to the bill before the House, and could not be provided for therein. There were such a variety of millfoods sold under so many names, that it was almost impossible to classify or control them. Mr. Fisher stated that such foods were being constantly analyzed at the Central Experimental Farm laboratory, and information given out to those interested. This, he said, they were ready to do at any time. He intimated, however, that these millfeeds varied greatly in nutritive quality at different times, depending upon the working of the mill machinery, so that one analysis of a given brand would not be a guide to its value at another time.

The necessity of Federal action has repeatedly been urged in "The Farmer's Advocate," and is growing

more necessary every day, for the reason that Eastern Canada is going more and more into stock feeding, and the mills and cereal factories are turning out more and more of these products. In the meantime, we would suggest that our readers avail themselves of the offer of the Department of Agriculture to make analyses of stock foods which they may be buying.

UNDERTAKER TO THE DOG.

Editor "The Farmer's Advocate":

I will be seen by a recent issue of yer paper that J. W. S., o' Russel Co., wad like my opeenion on dogs. Weel, I'm dootin' that it will na' be daein' him or onyone else muckle gude tae ken my mind on the subject, for it's a mighty poor opeenion I hae o' the creeters at best. I was telt no' lang since by a vera respectable young wumman that she had heard there was three things that I couldna' abide on the farm. The first was winmin, the second was hens, an' the last was dogs. Noo, ye ken, Meester Editor, that there wis na' a grain o' truth in the first; as for the second, weel, if ye dinna' hae a wumman ye dinna' want hens, but as for the third an' last, she hit the nail on the heid, if a wumman never did it afore. Noo, I ken weel what I'm talkin' aboot when I class the average dog as an unmeetigat nuisance. I hae had conseederable experience wi' dogs o' my ain, an' wi' dogs o' my neebors, an' wi' dogs that did na' belong to onyone in particular, an' wi' dogs that must hae belonged to the Auld Harry himsel', sae if ye will permit me, I will juist be relievin' my mind by sayin' a wee word on the subject.

When I was a wee bit laddie I liked fine to hae a dog to be chasin' cats an' such like things, an' when they would tell me to gae for the coos in the mornin' or at nicht, I wad aye tak' my dog along, an' ye will ken weel that the coos did na' linger by the wayside when they got on the hame stretch. If twa or three o' them wad na' gie doon their miik aifter the race, sae much the better, the job was the sooner done. However, when I can' tae the years o' understanding, I pit awa' childish things. The last dog I had wis a vera intelligent brute, an' as I got him when he wis a wee pup, I resolved tae follow Solomon's advice in regard to bairns, an' train him up in the way he should gae. But it did na' wark ony better wi' my dog than it often does wi' the bairns, for he got intae the habit o' serendain' the passers-by, an' wad follow them half a mile in any direction frae his hame afore he wad mak' an end o' expressin' his opeenion o' them. I min' weel o' ane auld fellow in a coon-skin coat wha was upset oot o' his sleigh one day in the winter when the roads were na' to say vera gude. The dog lost no time seizin' the opportunity wi' the coat, an' it was a lucky thing for the coon wha owned that skin that he wis na' inside it. But the profanity o' the man was a caution tae unbelievers.

Another time he went wi' the family tae the funeral o' ane o' oor weel respectit' neebors, an' tae see him rin up an' doon the church aisle, an' onto the platform, an' atween the meenister's legs, ye wad hae' thoct he wis the undertaker himsel'. When I got him hame, I says tae him, "My boy, I see ye like fine tae be gaein' tae funerals, so I am gaein' tae let ye gae to one mair. I hope it will be nane the less interestin' tae ye because o' it bein' yer ain." So that was the end o' dog-raisin' an' dog-trainin' for me, an' I hae' never been sorry that I went oot o' the business for the langer I live the mair I am impressed wi' the fact that the great majority o' dogs are juist aboot as gude as that yin o' mine, wha wis gude for naething.

As tae this question o' taxin' dogs, I want tae say I'm in favor o' the tax. My reason is: First, I wad na' hae' to pay it; an' second, it wad be the means o' lessenin' the number o' curs that will aye be comin' oot o' every gate along the highway tae bark at yer horse's heels as ye gang by. Another gude reason why dogs should gae on the assessment roll is the one which has led tae all this discussion. However, I'm dootin' if the sheep-killin' dog is gaein' tae be done awa' wi' by ony tax, for the owner maybe will no' object tae payin' a small tax for what he thinks is a gude dog. The only way that I ken is tae dae like the Russian Government is daein' tae the people in that countrie. Tax them clean aff the face o' the airth. Mak' it sae high that it canna' or will na' be paid unless in very exceptional cases, an' then for every dog that canna' show his tax receipt juist "pit the gun in him," as I heard an auld chap say once.

Some fouks say that it is naething short o' a crime to tak' awa' frae man an animal which sae often becomes a companion an' a friend, an' this mair especially so in the case o' an auld bachelor, of which we hae sae many wad be bachelors in oor Province. Weel, in this regard I wad say, let him pay his dog tax, which he should, an' wad be able tae dae. There is mair than one reason for that in thatither foolish, impractical, an' unbecommon because he hasna' a wife, wha would give a dozen gude reasons for remainin' a bachelor, an' believe in makin' a mon pay for his dog tax, rather than for what he hasna'.

tellin' but what, if he finds it unco' expensive to keep the dog, he maybe will be lookin' aroond for a companion o' anither species to tak' its place that will na' be costin' him sae dear; an' if he does yer dog tax will hae' served the country weel in mair ways than one, for ye ken it pays muckle better to raise boys than puppies. An' noo, J. W. S., ye ken my opeenion on the dog question, and for yer satisfaction I wad juist say that J. E. M., o' Glengarry, is o' the same mind as mysel' on this subject, so dootless he will be pittin' dogs an' manure spreaders in the same class.

"SANDY FRASER."

A GOOD DOG A PROTECTION.

FINE THE SHEEPMAN WHO DOES NOT KEEP A DOG.

Editor "The Farmer's Advocate":

I have read with interest the different letters in your paper on the dog tax. I agree that a pure-bred collie is not likely to kill sheep; it is the half-starved mongrels in the towns and country. I think \$1.00 plenty for a tax, and if my dog or any other man's dog is caught killing sheep, we have a perfect right to pay in full the value of the sheep killed or damaged. I do not agree with Mr. H. Misner, that the owner of the dog that kills the sheep should only pay one-third of the damage and the council the rest. It is just the same as a thief. If he is caught he has to take the full course of the law; he is not let off by one-third of the law, and the council go to prison for the rest. I consider a good collie a splendid animal on the farm; a great protection in many ways. I keep a few sheep, and my collie is a great friend of my sheep. The dog and sheep are fond of each other; they will both drink out of the same pail. I think a great deal of the trouble lies in men like Mr. R. L. Holdsworth, who never keeps a dog, and whose sheep will run if they see a dog; and a great deal of trouble lies in men that have dogs that are roamers, and not trained to do just what they are told. I would not keep a dog that would not do as he is told. The collie I have will not make friends with strangers, either dog or man, if they come around my buildings. If all sheepmen would keep dogs of this kind, they would drive every strange dog off that comes around, and, besides, he is a great protection to my children, playing around where cattle and horses are near; he will not allow anything to harm them. I consider a good collie worth as much as a boy at lots of things for work. I have had a collie that would go a mile after cattle alone, and bring them quietly home, and he would stay on a bag of grain as long as I would leave it, and watch the cattle and pigs from it. I would not consider that a man who keeps a dog as above should have to pay \$5.00 or \$10.00 for a tax, as Mr. Holdsworth recommends, but I would rather recommend that a sheepman, like Mr. Holdsworth, who will not keep a dog, be fined \$5.00 or \$10.00 for not keeping a dog, so his sheep would not run if they see or hear a dog. If a dog is not well trained he will run after such sheep, and very likely begin to do damage, which the dog would not have done had not the sheep started it. What I would recommend in the matter, is for every man, sheepman or not, to keep a dog, a pure-bred dog, well trained to mind his own business, and then the sheep would not be afraid of a dog, as the sheep start the trouble.

Northumberland Co., Ont.

JAS. A. RUSSELL.

THE FARM.

AN EXAMPLE IN EARTH-ROAD MAINTENANCE.

For a century or more we have been "making" at roads in Canada. In some cases great piles of rocks have been crushed, and heaped on the center of the driveways. These we flatter ourselves by calling "macadamized" roads, though their construction, condition and the expense of their maintenance are enough to make the shades of Mr. Macadam rise from the Scottish heath in protest. Then we have roads on which hundreds and even thousands of dollars per mile have been spent in gravelling. This generally results in more or less improvement, and we lament that we haven't enough millions of dollars to gravel all our roads. There are satirists who think, perhaps, it is just as well that we haven't, because a convenient gravel pit is too often made an excuse for neglecting such primary essentials as drainage. To make good roads by dumping stone or gravel into bogs is about as profitable as paving streets with gold—as well make steel bridges without abutments.

Fortunately, one might almost say, there are sections where metalling is impracticable. Here, we trust, the principles of rural road construction may yet be worked out sensibly. The plain truth is that we have never begun to realize how well our earth roads may be made and kept. In mid-summer there is no better rural road than good smooth clay. But while this fact is commonly recognized, people do not seem to realize that this road may be kept in practically as good condition for about seven months of the year instead of three or four. How can it be done? By the use of the grader. The grader is good to build the road, but it makes a radical mistake who depend on it for maintenance. The grader is an implement

of construction. We need after it an inexpensive means of maintenance. The earth roads of this country may be made good, and, where the traffic is not too heavy, kept good by three means: (1) Drainage, including, in many cases, under-drainage; (2) judicious grading; (3) the frequent, timely use of some cheap, simple implement, such as a leveller or drag. Wonders may be done with the leveller. That greater benefits have not been derived is due to the way in which it has been used—or rather neglected. Let us recite a personal experience. Past the writer's old home runs a piece of road about a mile and a half long. Throughout its entire length is a steady grade, amounting to a total fall of about 200 feet. The surface material is clay loam. Under the statute-labor system, a lot of time was spent with plow and dump-scraper, while twice a year two neighbors would hitch their teams on to the leveller, weight it down, and spend a leisurely half day scraping the road. Though this was the best work performed in the season, still it was never done as it should be. The first scraping was left till too late in the spring. They would wait until great pitch-holes had been formed in the soft spots, and big ditches washed out by water following the wheel tracks; then, when the road had become dry and hard, they would go on with their leveller, with four horses, to smooth down the lumps, fill holes, and repair damages. By and by the township commuted half the statute labor into cash taxes, and bought a grader. Henceforth the leveller was used still less—perhaps once a year. Instead, some time in June, when the road had got hard and dry, along would come the grader, with four or five horses, and an effort would be made to put the road in shape again. Under this system the road got worse instead of better, and the need for the grader increased year by year. Finally the balance of the statute labor was commuted, and the road commissioners appointed a man on each beat to scrape the road when necessary. To the writer of this article was assigned, for two successive years, the scraping of the beat described above. Convinced that great good could be accomplished by the leveller, he decided to give it a fair trial. Instead of using four horses and scraping twice a year, he hitched on two horses of about 1,000 pounds each, but used them often. The first scraping was done just as early in spring as possible; after that, throughout the season, whenever the road became at all cut up, it was promptly scraped, not to fill deep ruts, but to prevent them from forming. Seven or eight scrapings had an astonishing effect. By common consent, the road was the best it had been for a long time, though the season was a particularly trying one. Best of all, not a dollar's worth of grading was found necessary either of those two years. There was no damage for the grader to repair. The expense of the scraping was less than the former expense of the annual grading; the results infinitely better. The strange part of it is that, while everybody admitted the wisdom of that system of road maintenance, since then no one has continued the good work, and the old state of affairs exists once more.

Councils are looking far afield for some grand scheme of revolutionizing the art of roadmaking, instead of making the most out of the simple, inexpensive means at their disposal. Graders are all right in their place, but the grader is too expensive an implement, and cannot be used often enough to keep the roads in condition. For this we must rely upon some simple implement, such as the leveller or the split-log drag. It is not easy to get men who will drag the roads when their fields call for attention, and herein lies the weakness of the leveller, such as was used on the road described. The split-log drag, being intended for use before the surface is dry, may get in its work before the teams can go on the fields, hence there will be more chance of its being used. Therefore, let us try it. Send in your application to "The Farmer's Advocate" at once to enter our split-log-drag competition. It will cost you nothing but a little time to make and use the drag. Entries close March 27th.

ROOFING EXPERIENCE ASKED FOR.

Editor "The Farmer's Advocate":

I have a barn, 44 x 48, on which I intend putting a new roof this summer. I was thinking of putting on a curved roof, and using corrugated sheets. Would like to know how the rafters are put on for a curved roof. I think the plans of building walls and stables have been pretty well discussed, and would like to hear something about the different kinds of roofing. I have been told that a roof of corrugated sheets is hard to keep in repair, the sheets contracting and expanding with the cold and heat and drawing out the nails. Will some of the readers of "The Farmer's Advocate" who have used corrugated sheets for roofing kindly tell how they are suited with them? Hastings Co., Ont.

[Note: Will some of our readers who are posted on roof construction answer the above enquiries and give results of their experience with different styles of roofing found satisfactory?—Editor.]

MANURE SPREADER PAYS ITS WAY.

Editor "The Farmer's Advocate":

I have been reading the writings in "The Farmer's Advocate" re manure spreaders and the manure pile with interest, and would say in defence of the manure spreader, that I do not think there is any piece of machinery used on the farm that will pay its way any quicker than the spreader; as I consider the man or men using the manure spreader, if they handle it right, are putting the manure on the ground in such a way that they get that much better returns in their crop that will, in a short time, give them the price of their machine. I have been using one for two years, and would not go back to the old way of spreading manure at all.

About the time to spread manure: I do not agree with those men that advocate drawing the manure from stable and spreading it on the land when the ground is frozen and covered with snow, as I believe that too much of the strength of the manure goes away in the spring when the snow is going away, and also the effect of the March and April sun takes a great amount of the good out of manure. It may do in countries where they do not have as much frost in ground to come out in the spring as we have in Carleton County.

We put the manure from cow stable all in one large pile outside of stable and yard, and load it onto spreader and take to field and spread either on pasture land, or else on the meadow, as soon as hay is cut, and I find we get more good out of manure in this manner than any other way that I have tried, as we get an abundance of grass or hay the following two seasons, and then the land is in good shape for corn, or any other crop that we choose to put on it.

Our horse and pig manure we usually put on our hoe-crop land as soon as possible after spring opens up, as I do not like to let it stay in pile during hot weather, as I believe it decreases in value, but I do not think we lose much by the cow manure being left in pile until hay is cut, as ours nearly always has snow and ice in center of pile that keeps it from heating, and when spread direct on the grass the first rain that comes takes the strength of manure to the roots of grass.

Now, my spreader has been used for two years, not only on my farm, but has been rented to several of the neighbors at \$1.50 per day, and has earned a nice little sum for me, and it has not cost me any more than \$10 all told for repairs, and the greater part of that expense was the fault of the company, as they put green material in the hind wheels, and I had to get new spokes in them and tires set. Now, I think the man that thinks that two men can spread manure as fast and as well as the spreader does not know much about the spreader, for I know by experience that they cannot, and keep it up day after day. Those are my views re manure spreader, and are open to criticism.

WM. A. WALLACE.

Carleton County, Ont.

THE EIGHT-HOUR DAY.

Editor "The Farmer's Advocate":

As most of the readers of "The Farmer's Advocate" are aware, the labor unions are trying to procure the establishment of an eight-hour working day, by having an Act passed by the Dominion Parliament, making eight hours a legal day. It is our duty as farmers, and the heaviest taxpayers in Canada, to consider how such a law would affect us, and act promptly in our own interests.

We know that even under existing circumstances it is almost impossible to get sufficient help on the farm, and that in some cases, if there is work to be done after six o'clock, the farmer must do it himself, for many hired hands will do nothing after hours. Now, if eight hours constituted a day in the towns, even more of the country boys would be lured into towns, and our position would be that much worse. Most of our farms are not producing more than half of what they should produce, solely on account of want of labor. This is a loss not only to us as farmers, but to Canada as a whole, because an increase in the production of farm produce means a created increase in the wealth of the country.

If manufacturers are forced to adopt an eight-hour day, the cost of nearly all kinds of manufactured articles would be increased, and we would be obliged to pay the increased price.

Even at the start, and supposing it possible that the effect of the law would not extend further than the bill states (which is absurd), and only men employed on Government contracts were allowed the eight-hour day, we, as the largest taxpayers in the country, would have the largest share to pay.

Now, let us quietly and soberly consider, is there any ground or reason for making eight hours a labor day? Would it be any better for labor? Would not the long daily periods of idleness rather tend to strengthen idle habits and vices? I do not mean to insinuate that working men are any worse than the rest of us, but there is a whole lot of truth in, "Satan finds some mischief still for idle hands to do," and I do not believe that the Creator of mankind ever intended man to live happily if only engaged eight hours out of the twenty-four.

If we as farmers are convinced that the passing of the bill introduced by Mr. Verville is detrimental to our interests, and to the interests of Canada as a

whole, let us immediately write to our representatives at Ottawa and urge them to vote down this vicious and nonsensical measure.

C. H. BLACK.

Cumberland Co., N. S.

PRACTICAL FARM DRAINAGE.

III.

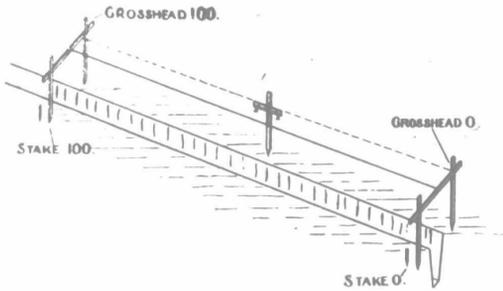
Having determined the grade and dug the ditch within about six inches of its final depth, the next operation is to remove this remaining six inches, leaving the ditch-bottom with an even fall throughout. The accompanying drawing will aid in understanding the method to be described.

GRADING THE DITCH.

Two cross-heads are set up 100 feet apart, one at stake 0, and the other at stake 100. Both are put 7 feet above the ditch-bottom, the latter thus being higher than the former by the amount of fall in 100 feet; e. g., if the fall is 4 inches in 100 ft., then cross-head 100 is set just 4 ins. higher than cross-head 0. The stakes must be stout, and driven firm in the ground. A light cord (binder twine does very well) is then stretched tight and tied over the cross-pieces—so tight that the sag is negligible. Since one end is 4 inches higher than the other, this cord has the same fall as the ditch-bottom is to have, and hence if the latter is made parallel to the cord it will have the required fall. It is necessary to provide a light testing stick, 7 feet long, since the cord is 7 feet above the ditch bottom. With a narrow shovel, the earth is gradually removed until the stick, standing on the bottom, just passes under the line. When such is the case, the ditch is deep enough at that point. When every point between stakes 0 and 100 just tests 7 feet from the overhead line, the grade of this section is uniformly 4 inches in 100 feet.

But how shall we place the cross-heads 7 feet above the ditch-bottom?

First.—We must determine the depth of the ditch at the outlet. A drain usually empties into another tile drain or into an open ditch, the depth of either of which may be determined by using the drainage level (described in the first article on this subject) and the measuring staff, as follows: Set up the level, as directed in the first article, and sight over it at the staff, which



Showing Method of Erecting the Overhead Line.

is placed first on the surface of the ground, and second on the bottom of the main drain or of the open ditch. Subtracting the two readings, we have the depth of the ditch at the outlet. Suppose, for illustration, that it is 3 feet 5 inches.

Second.—We must determine the height the crosspiece is to be placed above the ground. This is done by subtracting the depth of the ditch from the length of the testing stick; i. e., if the ditch is 3 feet 5 inches deep, as supposed above, cross-head 0 would be 7 feet - 3 feet 5 inches = 3 feet 7 inches above ground. One end of the cross-piece is nailed to the stout stick at this height (3 feet 7 inches); the cross-piece is then levelled by means of the carpenter's level, and the other end nailed to the other stake.

Third.—We must find a point on stake 100 just the same height as the top of cross-head 0. To do this, the drainage level is set up about halfway between stakes 0 and 100. The level is moved up or down on the standard, as the case may be, until when adjusted it is found, by sighting (see dotted line) to be just on a level with the top of cross-head 0. Then, by sighting toward stake 100, as shown by dotted line, a point is found which is also on same level as the top of cross-head 0. This end of cross-head 100 is nailed just 4 inches higher than the point shown by dotted line, the cross-head levelled, and the other end nailed. Cross-head 100 is thus exactly 4 inches higher than cross-head 0.

Why place the overhead line seven feet above the ditch bottom? Six feet is not high enough to clear the man and his shovel. Eight feet would be more than is necessary. For any other grade than 4 inches in 100 feet, cross-head is nailed the corresponding amount higher than the dotted line. When the first section has been graded, and while the line is still strung, it is wise to lay the tile, so that they may be tested to grade by the same line, a notch being cut in the testing stick at a distance from the end equal

to the outside diameter of the tile. When the line just meets this notch, the tile is in the proper grade. After the laying has been finished, cross-head 0 is moved to stake 200, and set the required amount higher than cross-head 100, and this section of the drain graded as was the first section.

It is not wise to allow the digging to get too far ahead of the laying, as a rain is liable to occur at any time, causing the sides to cave in in spots, and in other ways interfering with the finished bottom. The joints should be protected to prevent sediment entering the tile while the earth is becoming set. Sods placed with the grass next the tile, make an excellent protection. When the drain has been filled, a ridge should be plowed over it in a well-rounded crown from 8 to 12 inches higher than the land on either side, and to a width of 8 or 10 feet; otherwise large quantities of water are likely to collect over the drain and soak down through the loose soil, sometimes choking the tile with sediment, at other times gradually forming a channel beside the tile, washing the soil away and allowing one or two lengths to roll out of line, and thus partially or wholly block the drain.

WM. H. DAY.

Ontario Agricultural College.

THE SPLIT-LOG DRAG COMPETITION. RULES AND PARTICULARS.

1. Two sets of three cash prizes are offered, one set for Eastern and one for Western Ontario, an imaginary line running due north from Yonge St., Toronto, being the dividing line. The first prize in each case will be \$25, second prize \$15, and the third prize \$10.00.

2. Any subscriber to "The Farmer's Advocate" may enter who will notify us on or before March 27th, 1907, of his willingness to construct a drag, as explained below, and use it at least five times during the summer before October 15th, at his own discretion, on a mile of ungravelled earth road of his own selection, preferably the mile from his gate towards the nearest town. Applicants must give full name, post-office address and railway station or stations.

3. On behalf of the Provincial Government, Mr. A. W. Campbell, Good Roads Commissioner, has agreed to co-operate with us by doing the judging. Each piece of road will be inspected as early as possible in the spring, and again after the conclusion of the trial on October 15th. The awards will be made according to the results evident from the use of the drag. To make a good showing, it may be well to choose a bad rather than a good piece of road, though no limitations are imposed in this respect. Each competitor will be required to keep and present in writing to the judge a statement showing the amount of time spent in dragging his beat and the dates on which it was done. This statement will not be used in making the awards, but is desired for purposes of information, and in some cases for publication.

The results of the competition will be written up and illustrated with half-tone engravings in "The Farmer's Advocate."

Send in your name at once. Let us have dozens from every county in the Province. We are offering our time and money in the cause of good roads. Will you help?

Remember, the time for entering the competition closes March 27th. Address your letters, as per rule 2, to "The Farmer's Advocate," London, Ont.

HOW TO MAKE AND USE THE DRAG.

The two halves of an 8-foot log, 10 to 12 inches thick, are set on edge thirty inches apart, both flat sides to the front. The cross-pieces are wedged in two-inch auger holes bored through the slabs. If working a clay or gumbo road, it is advised to put iron (old wagon tire, or something of that sort) on lower edge of drag at end of six months; for softer soil, at end of twelve months.

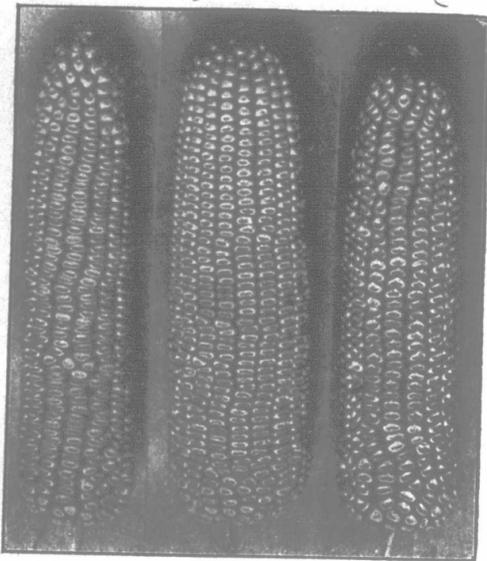
LAST CALL FOR THE EARTH-ROADS COMPETITION.

"The Farmer's Advocate" is offering two sets of prizes, \$25, \$15, and \$10, respectively, for Eastern and Western Ontario, for the best results effected in the maintenance of earth roads this season by the use of the Split-log Drag. For two issues past we have published in full the rules and conditions. Mr. A. W. Campbell, Provincial Commissioner of Highways for Ontario, has kindly undertaken to make the awards. Entries close March 27th. Address "Farmer's Advocate," London, Ont. There are no fees; simply make the drag and use it at least five times on a mile of road before October 15th. Send your entry at once. Even should you not win a prize, you will be compensated by improving the road and having the drag.

AN EAR OF CORN FOR SEED.

From an address by L. S. Klinck, Macdonald College, Ste. Anne de Bellevue, Que., at the last Ontario Winter Fair.

Can Ontario produce her own seed corn? From conversation, observation and experimentation, I believe she can. I have reference now chiefly to



1 2 3
Dent Corns.

1—Pride of the North. 2—Reid's Yellow Dent.
3—Bailey.

Ontario's corn belt—a district, so far as commercial seed-corn production is concerned, practically embraced in the Counties of Essex, Kent and Elgin. In 1906, for our corn work in Ste. Anne de Bellevue, we obtained seed corn from thirteen growers in these counties, and, notwithstanding the fact that we had a cold, backward spring, the corn averaged 90 per cent. germination in the field. The man who has made careful field-germination tests will be the one who will most appreciate these results. Sweet corn, grown at the Macdonald College the past season, yielded at the rate of 106 bushels of shelled corn per acre of thoroughly-dried seed corn. The only fertilizer used was a light application of barnyard manure in spring. Seed of flint corn was obtained in the Eastern Townships, Quebec, and planted at Ste. Anne. Although it was not planted until the 6th of June, it was perfectly matured three weeks before the frosts were sufficiently severe to injure the foliage. This plot was one-quarter of an acre in size, received no artificial fertilizer or manure, and yielded at the rate of 65.9 bushels of shelled corn per acre. Undoubtedly we have yet much to learn regarding varieties, cultivation and handling of this important crop, but by co-operating with nature, my fears for ultimate success are not grave.

Consciously and unconsciously corn has been selected in a crude way for centuries. The fact that in harvesting the crop it was necessary to handle each ear separately, made the selection of the largest and most symmetrical ears a comparatively easy matter. It is true that by this method performance and real efficiency were often sacrificed to good appearance, as is too often the case at the present time. An ear possessing outward character and strength, and approaching perfection so far as conformation goes, need not necessarily be a productive or a desirable ear to plant. If, in addition to a good external appearance, the individual kernels are of the desired conformation, we can more nearly determine the true efficiency of the ear, so far as feeding value is concerned; but it is only by a comparative field test of different ears that we are able to determine the prepotency or projected efficiency of any ear.

POINTS OF A GOOD SEED EAR.

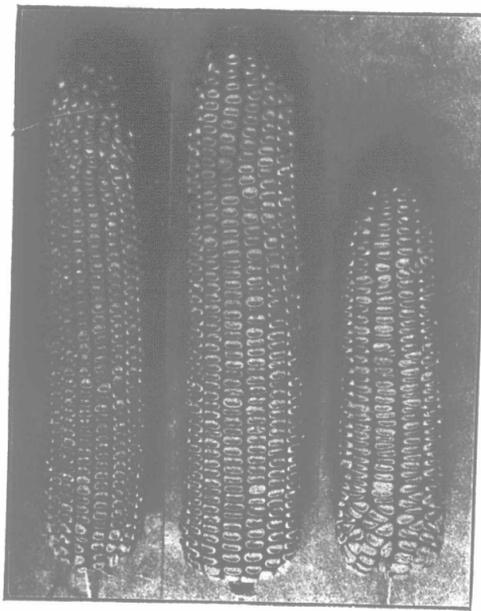
Conformity to Breed Type.—All ears intended for seed purposes should conform to the desired standard in shape of ear and kernel, in color of grain and cob, in purity, size, uniformity, filling of butts and tips, indentation of crown (in the case of dents), depth of kernel, space between rows, straightness of rows, and proportion of corn to cob. Conformity to a desirable type should be insisted on, as it has been repeatedly demonstrated that pure-bred varieties give not only higher yields of corn, but corn of better quality than that produced by nondescript breeding. No variety of corn, no matter how productive it may be, can ever hope to win public favor and become widely known if it attempts to justify its existence on the grounds of productive-

ness alone. However prone we may be to overlook the æsthetic side of grain production and lay emphasis on the financial results, somehow we all insist that an ear of corn have those evidences of breeding which give such added interest and satisfaction in growing and handling the crop. Efficiency and conformity to a fixed type are not antagonistic.

Shape of Ear.—The shapes of ears will vary from the cylindrical to long, pointed forms, according to variety and the conditions under which they have been grown. Ears full and strong in the central portion are most desirable, as they indicate a high per cent. of corn to cob and corn of superior feeding qualities. An ear properly proportioned in the center is indicative of strong constitution and high yield, as a correlation exists between ears and the kernels of which they are composed.

Shape of Kernel.—A good kernel, especially in the dent corns, should be broadly wedge-shaped, strong and plump at the tip, and should carry its sides well up to the crown, giving a strong, full shoulder. The germ or chit should not only have a large surface, but should be carried well down to the back of the grain. The germ is high in oil; the hard, horny part of the kernel is rich in protein.

In selecting an ear of corn for seed, always remove two or three kernels and study them in connection with the ear. If the kernels are undesirable, reject the entire ear, even if to outward appearances the ear is good. Many a poor ear is used for seed or show purposes which would



4 5 6
Dent Corns.

4—Howie. 5—Leaming. 6—Butler.

never have been considered had the owner removed a few of the kernels and made a careful study of them before making his final selection.

Butt.—The butt should be symmetrical, full and strong, and made up of straight rows composed of kernels conforming as closely as possible to those in the center of the ear. A full, rounded butt is indicative of strength, and adds the element of character to an ear, but it is not desirable to have it round out too fully and become too constricted, as there is a danger of its weakening the shank to such an extent that the ears break off prematurely. Open or swelled butts are always objectionable.

Tip.—The tip should be in proportion with the body of the ear, and round out symmetrically and naturally. The rows should be straight, and kernels retain as nearly as possible the size, shape and indentation of those in the center of the ear. Too much attention should not be paid to the complete covering of the tip, as the kernels here are not so valuable for seed or for feed as those in the center of the ear. In addition to this, when undue attention is directed to securing ears well filled out at the tip, there is danger of doing so at the expense of shortening the ear in the most valuable part.

Purity of Color in Grain and Cob.—Strict adherence to a uniform color is essential in maintaining purity or freedom from mixture in any variety. The degree or depth of color in kernels or cob is of minor importance when compared with the question of mixture. Corn intended for seed should not be planted within a quarter of a mile of another variety of corn. Even if all the kernels not true to color are removed from an ear, there is a strong probability that many

kernels on the same ear, although apparently pure, are in reality of a different origin. Xenia, or the direct effect of pollen on the silks, is not always shown in the color of the endosperm, but may be confined to the embryo. This being the case, it is not good practice to plant for seed any ear having many fixed kernels, even if all the kernels not true to color have been removed, as the influence of the previous cross-pollination may at any time manifest itself in subsequent generations. White corn should have white cobs; yellow corn should have red cobs.

Uniformity of Kernels.—Under this heading is considered not only the uniformity of the kernels on the ear, but also the conformity of the ear and its kernels with the rest of the sample. As the kernels on the butt and tip of an ear cannot conform closely to those in the center, they are shelled off when a uniform sample is desired for seed. Blocky or irregular kernels in the central portion of an ear are considered much more objectionable than if they were found at the ends, as it is much more difficult to remove them.

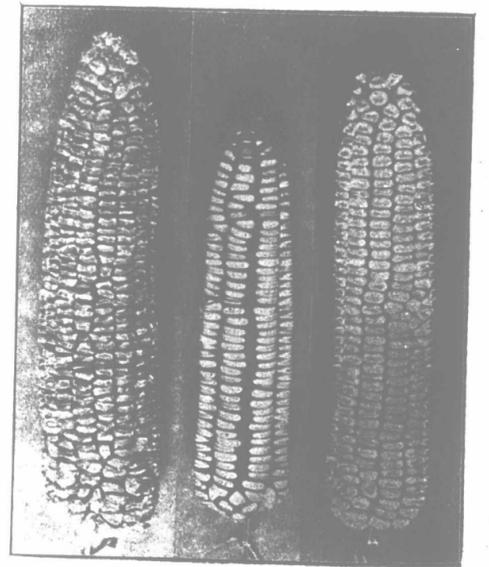
Uniformity in size and shape of kernels is very important, especially when a planter is used, as a lack of uniformity renders it impossible for any planter to drop the desired number of kernels to the hill.

Vitality.—The word vitality is not restricted to a kernel's ability or lack of ability to germinate, but is used in the wider sense to indicate its strength and probable reproducing power when it does grow. A kernel full and plump in the tip and having a bright, vigorous germ is most desirable. Kernels weak and pointed at the tip do not have a sufficient store of reserve food to give the tiny plant a strong start in life. All such kernels should be discarded.

No point in seed selection requires greater care and the exercise of more accurate, painstaking judgment than that of rightly estimating the relative discount that should be made for different evidences of immaturity, or for signs of injurious effects resulting from improper storage. In many cases the only way to make even an approximate estimation of the germinating power of any sample is to make an actual germination test.

In order to determine the relative value of the different types of immature kernels so frequently found in selecting seed corn, germination tests were conducted by the writer in the field and in the greenhouse. Five classes were experimented with, and the conclusions drawn from the results form the basis for the statements regarding each class.

Chaff or Cob Adhering to Tip of Kernel.—It was found that chaff adhering to a kernel, as it often does in immature ears, was not sufficiently detrimental to warrant discarding such kernels, providing this was the only evidence of immaturity, as the growth of these kernels, both in the field and in the greenhouse, was satisfactory.



7 8 9
Sweet and Dent Corns.

7—Duke's Improved Sweet. 8—Golden White Cap.
9—White Cap Yellow Dent.

Black Tips.—Kernels with the tip cap removed, exposing the black covering of the embryo, grew well when planted in the greenhouse, and under field conditions gave a good stand. The tip cap is intended as a protection for the young plant, and when removed the water readily enters. If planted in a cold, wet time, such kernels frequently rot, but when planted under favorable soil and climatic conditions, give but little indication of impaired vitality. These statements apply only to those kernels in which the tip cap remained in

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Space Between Rows.—Wide space is undesirable in any but deep-grained varieties. It is generally caused by rounding of the crowns. As there is no good reason why the kernel should not carry its sides squarely up to the shoulder, and thus fill practically all the space with corn, wide spaces are severely cut.

In addition to the serious loss occasioned by this conformation, the chief ground for objection to them is that they are an indication of degeneracy or reversion to a more primitive type.

In some varieties, like Reid's Yellow Dent, the rows are frequently paired, the inner sides of the rows forming the pairs dovetailing, the outer sides being carried up straight to the crown, giving a square, blocky shoulder. In the deeper-grained varieties the rows are seldom paired, and the furrows are much wider. This is a wise provision of nature, making it possible for the deep-grained corns to dry out more readily. Flint varieties are grown where the season is short. Naturally, the amount of space between the rows is great and the kernels flinty and rounding on the crown.

While open rows are objectionable, rows having too little space are fully as undesirable. A certain amount of space is necessary for maturing the kernels. If this space is too limited, the kernels almost invariably show wide space between the kernels at the cob, and as the tip is the most valuable part, the importance of having it full and well developed is apparent. The presence of these wide spaces between the kernels accounts for the fact that so many close-rowed ears are so light in weight and shell out such a low percentage of corn.

the cob on shelling. The black, skin-like covering immediately under the tip cap is natural to every kernel. Objection can be taken to its appearance only when it is exposed through removal of the tip cap in the process of shelling.

Wrinkled, Blistered or Shrunken Germs.—Kernels showing these evidences of immaturity are arranged in the order in which objection should be taken to them. Corn stored in a very warm place will shrivel and become uneven on the surface, just as an apple, when left in a warm room, shrinks irregularly from its outer covering, leaving ridges and depressions. Unevenness on the surface of germs due to this cause should not be regarded as objectionable, but a shrunken or blistered germ is very serious if the covering of the germ is raised to any considerable extent as a result of exposure or freezing. The vitality of such germs is almost invariably greatly impaired, if not wholly destroyed.

Starchy, Shrunken or Blistered Backs.—Whenever exposure or freezing has been severe enough to blister the back of a kernel, its chances for germination are poor. This is one of the strongest indications of injury resulting from imperfect ripening. When the back of a tip shows a decided depression, it is strong evidence that the kernel has not had sufficient time to develop properly. A kernel depressed on the back is usually deficient in the hard, horny, glutinous material, and is therefore composed largely of starch.

Condition of Germ, as Indicated by Its Cutting Qualities.—A properly-developed and carefully-dried germ cuts readily and presents an oily appearance. It is light cream in color, and can be cut in very thin layers which roll up like fine shavings. If kiln-dried, less oil will be apparent, and in cutting the layers will break up readily. A frozen germ, on the other hand, lacks this healthy, oily appearance. It is tough and elastic, and unless the knife is sharp the germ is sure to shove or roll. When cut, it presents a dark, glistening, soggy appearance.

Size of Ear.—The length and circumference of the ears chosen must be governed by the locality in which the corn is grown. The tendency has been, and still is, in the direction of growing varieties too large to mature properly. This is a mistake. It will prove more profitable to grow a smaller corn which will mature every year, than to grow a large corn which seldom if ever ripens properly.

In dent corns, the proportion of length to circumference should be as four is to three; i. e., an ear ten inches long should measure seven inches in circumference about three and one-half inches from the butt. Short, thick-set ears are inclined to have long, deep-set kernels, which makes it impossible for ears to dry out readily in the fall, unless the variety has been carefully selected for years to combine early maturity with depth of kernel. It is, of course, advisable, to grow as large and deep-grained a variety as can be safely depended upon to mature in any given locality.

In flint varieties, the length of the ears differ so widely that it is a more difficult matter to establish a fair proportion. As a general rule, the production of long, pointed ears should be discouraged, as they are almost invariably poorly covered at the tip.

Space Between Rows.—Wide space is undesirable in any but deep-grained varieties. It is generally caused by rounding of the crowns. As there is no good reason why the kernel should not carry its sides squarely up to the shoulder, and thus fill practically all the space with corn, wide spaces are severely cut.

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Proportion of Corn to Cob.—It is practically impossible to lay down a standard on this point which will apply to any considerable section. Dent varieties will range from 78 to 86 per cent. shelled corn; flint varieties will range from 74 to 81 per cent. A good average for the former would be 82 per cent.; for the latter, 79 per cent. As it does not necessarily follow that a large ear will shell out more corn than a much smaller one, in selecting seed corn, close attention should be paid to the points just mentioned which go to make up a solid ear. To ascertain the proportion of corn to cob, weigh the entire ear; shell the ear, and find the weight of grain; divide

IMPROVED METHODS IN CORN CULTURE.

Editor "The Farmer's Advocate":

While corn is grown for grain and for the silo, pretty much throughout Ontario, with exception of the Counties of Essex and Kent, the improved dent varieties are not in general use, many people believing that the small flint varieties are much earlier, while, as a matter of fact, there are many varieties of the dent type that will produce from 25 to 40 per cent. more to the acre, and will come to maturity almost as soon as those of the flint type. That the heavier corns may be planted to advantage more generally, was shown last year in fields of Leaming ripening sufficient to obtain good seed, 75 miles north of Toronto.

It has been demonstrated that the south-western counties can produce heavier-cropping corn than is usually planted. For instance, two years ago Reid's Yellow Dent was introduced, not without apprehension, but it has been found that it matures here as readily as in the corn belt of the States of Iowa or Illinois.

The first requisite to a good crop of mature corn is strong, vigorous seed. Seed corn weak in vitality will grow under favorable conditions and produce a fair crop, but if the weather should turn cold and wet immediately after planting, there is a great chance of loss, as it will not remain alive long, and in prolonged unfavorable weather will rot, while seed strong in vitality will remain in the ground a long time without injury, and when favorable weather does come, will come on at a rate that makes up for lost time. Under similar and favorable conditions, there is ten days' to two weeks' difference in the maturing of corn of vigorous seed and that of poor vitality.

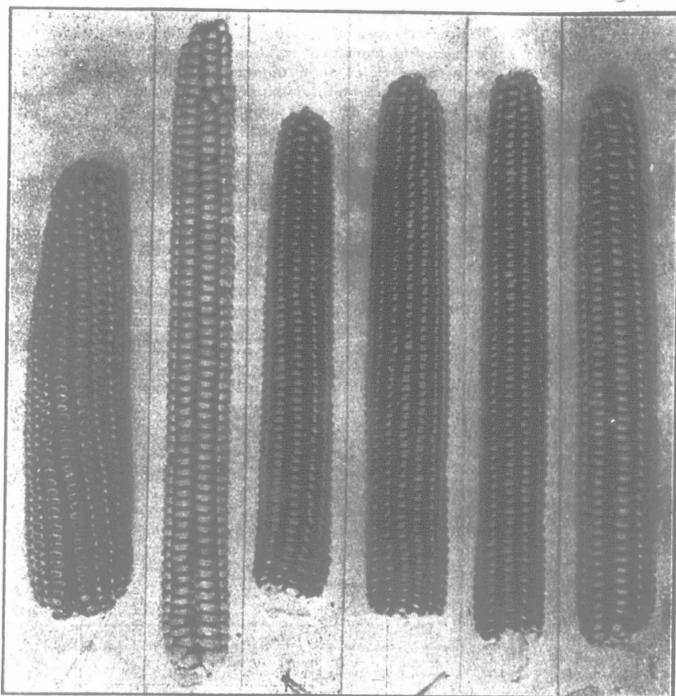
Seed corn should be bought on the cob, and every ear to be planted subjected to an individual test

before planting time, and a day thus employed will save many dollars, much time, and insure a uniform stand. This is done by means of a germinating box. Two or three kernels are taken from different places on the ear to be used for seed and placed in this box, which contains moistened sawdust. The seeds and ears are given numbers to distinguish them, and the ears whose seeds show any weakness are thrown out, and only the most vigorous planted.

Every farmer should grow his own seed corn, if possible. If this is not practicable, he should get it as near home as possible. Much loss is now sustained by planting corn which is brought in from the States, as it does not do well when moved any great distance, but will soon adapt itself to conditions of climate and soil. By growing one's own seed, great advantage can be gained, not only in that the plant will become more adapted to the locality, but since, as nothing responds more quickly to a little care, the crop can be greatly improved through judicious selection and pruning. By selecting and planting the early-maturing ears, the type can be made much earlier; and by proper detasselling of those stalks which have inferior cobs or none at all, the percentage of nubbins and of barren stalks can be greatly reduced in a few years. It is not generally recognized that the present yield of grain could be increased from 30 to 50 per cent. per acre if every stalk bore a well-developed cob. This, however, is a matter of fact, which a few moments' close observation will show. Actual count has proved that a very large proportion of the stalks as now grown bear no ears.

Corn bears a very important place in the rotation of crops. The thorough cultivation required to grow it puts the soil in a fine condition, ridding it of most weeds and grasses. Clover is the ideal crop to precede corn, and should not be plowed too early in the spring, but allowed to grow quite a top before being plowed under. Clover seed may also be sown in corn just before it is cultivated the last time. The best stands can be obtained in this way, and a good winter covering for the soil be had.

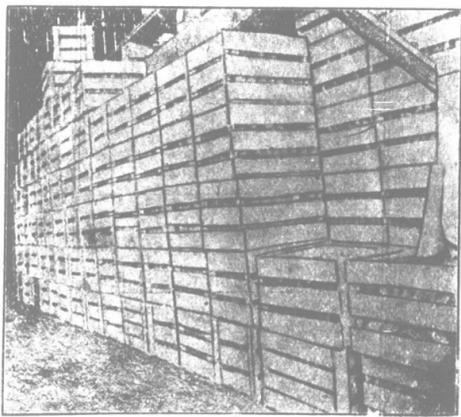
To be successful in the cultivation of corn, the soil should be made as mellow as possible, and the seed planted as soon as the land has been thoroughly prepared. Cultivation should begin four or five days after the corn has been planted, by harrowing with a set of light harrows or



Flint Corns.
10—Lenocher's Red. 11—North Dakota. 12—Wessel. 13—Compton's Early. 14—Longfellow. 15—King Philip.

the weight of grain by the weight of grain and cob, and the result will be the percentage of corn.

A large proportion of corn grown averages considerably less than the average given; a number of varieties, as the result of years of careful breeding, exceed the average percentage. While it is desirable to grow corn giving a low per cent. of cob, there is a point beyond which it is not safe to go. There seems to be a proper proportion or relation existing between the corn and the cob bearing it, and beyond this point the breeder cannot go without seriously endangering the vigor and constitution of his corn.



Method of Storing Seed Corn.

CANADIAN CORN - GROWING.

The collection of 15 varieties of Canadian-grown corns illustrated in this issue were furnished by Mr. J. O. Duke, of Essex County, Ont., and afford an encouraging idea of the splendid results attainable with dent, as well as flint, corns on Ontario farms. The ears are just good average samples. We had them photographed and engraved as an object lesson. The illustrations are a trifle less than one-third the size of the originals.

weeder; this may be repeated when the plant has four to six leaves. After this, it should be cultivated once a week with a small-toothed implement, and the land kept as level as possible until the plants get so large as to break when touched by horses or implement.

The best results are obtained from hill culture and being rowed both ways. Planted thus, the crop can be more cheaply grown, as it need never be touched with a hand hoe if cultivated at the right times. Labor is too scarce to employ help hand-hoeing when one man with a brisk-walking team can do more execution in an hour than he can in a day with a hoe.

A great mistake is made by planting too deeply and thickly. An old rule, that any seed should not be planted more than two and one-half times its own depth, applies admirably to corn, and three grains is enough in a hill; one bushel of seed will plant six to eight acres. Some varieties of corn, such as Compton's Early, Longfellow, and some other small-growing kinds, may be planted 3 1/2 feet apart each way. Leaming, White Cap Yellow Dent, etc., should not be planted closer than 44 to 46 inches, while Reid's Yellow Dent does best when planted 4 feet apart each way. The yield varies greatly with the condition of soil, manner of cultivation and variety.

Under favorable conditions, the flint varieties will yield 75 to 80 bushels of ears per acre. The early dent varieties, 100 to 125 bushels, while Reid's Yellow Dent has produced as much as 150 bushels of ears in Essex County. J. O. DUKE, Essex Co., Ont.

[Note.—All the 15 varieties of corn illustrated in this issue, with the exception of Reid's Yellow Dent, have been grown in Essex County, and for years. Reid's Dent was introduced two years ago. Each variety is grown on a separate farm.—Editor.]

TRADE IN AGRICULTURAL SEEDS.

In discussing the commerce of seeds, at the Eastern Live-stock and Poultry Show, Mr. G. H. Clark, Seed Commissioner, quoted the average yields of cereal grains. The quality of seed used was responsible in part for the low yields. Bad methods of farming and weed growth was the main cause of unprofitable crops. Twenty-nine samples of soil were examined in the seed laboratory for weed seeds, and were found to contain numbers of them, varying from 200 to 35,000 per cubic foot, about 50% of them being vital. The object of the Seed Act is to require seed merchants to provide information that will enable farmers to buy seed grain intelligently. If they want to buy and sow wild oats and mustard, Parliament cannot help them very much by legislation.

Fully 95% of the grass and clover seeds used in Canada are timothy, alsike and red clover. Canada imports largely of timothy from Minnesota, Illinois, Iowa and other western states. More than one-half of the clover seed grown in Canada in the average of years is exported. Europe is the natural market, Hamburg being the largest distributing point for seeds in the world.

On account of the guarantee systems in the European seed trade, by which farmers obtain a statement showing the percentage of purity and vitality with the seeds they buy, there is a wide spread in prices in favor of the good clean article. The poor qualities and cleanings are offered and sold in those countries where they have no system of seed control. A large share of such low-grade seed was sold in Canada in late years, through the medium of jobbers in the trade. The Seed Control Act has been effective in checking this evil. This year, on account of the partial failure in the American red clover seed crop, large shipments of seeds are coming from Europe and South America. Our best seedsmen have imported a No. 1 article, but a great deal of that imported will only escape the minimum standard fixed in the Act. The farmer who sows that inferior clover seed, at the rate of ten pounds per acre may sow about 15,000 seeds of the worst weeds per acre. Farmers who want to escape from that will have to see to it that their seed is marked No. 1 by a reliable firm. The term "Government Standard" is applied to seeds not prohibited by the Act, and should not be taken to mean seed of No. 1 quality.

Dodder and clustered dock are very common in the imported seeds. These are noxious weeds in other countries, but may not be dangerous in our climate. There are many species of dodder, but the fact that red-clover dodder has never been found in Canadian-grown seed, although it has been introduced many times, is good evidence that it will not thrive in our northern climate.

"My opinion is that farmers will experience very little permanent injury from sowing dodder with the red-clover seed that is being imported this year, and they will receive much benefit from using the seed imported from Chili and Europe, because the red clover plant from that seed is better than the American variety."

All good seedsmen know the percentage vitality of their root crop and garden seeds, and farmers and gardeners should buy their supplies from those seedsmen who provide that information with their seeds.

SEED SELECTION.

Mr. T. G. Raynor, Ontario representative of the Seed Branch, spoke upon the importance of proper

selection. He claimed that too little attention was paid to this very important problem to farmers. Farmers should be ambitious in one of two things, if not in both, viz., to leave their generation the richer because of the stock they improved, or the seed they have developed. The same laws apply to both. Until recently the fanning mill was about the only method of selection. This selection could be improved if it were done more thoroughly. Four bushels from the bin should be reduced to three for seeding. This selection, while good, fails in not being able to distinguish between the plump seed of large heads and the plump seeds from small heads. It was shown, from the results of the Macdonald-Robertson seed competition, that the yield and quality of seed could be improved by selecting plants. The Canadian Seed-growers' Association was an outgrowth of this system, and the general plan of their method was outlined, as well as the benefits arising from that system. Observations were made respecting visits to a number of the breeding plots this summer on affects of cultivation, smut, and maturity upon the yields of grain crops.

INSTITUTES — FARM ACCOUNTS — DAIRYING — COMMUNICATION.

The different Farmers' Institutes are now holding regular meetings, and they are being well attended. The farmer is a busy man, but he should never be too busy to attend some of those Institute meetings, and by his presence, as well as his experience, try to benefit his brother farmers. It is a pity that more of our first-class farmers do not attend, and impart to others the knowledge gained by years of experience in the different branches of agriculture. We naturally look to

are wanted, but as I have already said, get right down to the plain, honest facts, and then it will be of interest to the members; and this is only one side of the question. If you adopt the system of keeping farm accounts you will be sure to become more interested in your work, and in everything pertaining to farm life. If you are a man up in years and have a son, encourage that boy to keep an account, not only of every item of income derived from the farm, but have him keep a diary of current events, and everything that is going on from day to day. In order to make my point a little clearer, I will give an idea of how my diary is arranged. Perhaps you may know of a better plan, but this will suit the ordinary farmer very well. First buy a book for the purpose, about 8x10 inches. Be sure to get one with good paper, and always use ink, not a lead pencil, when writing in it. Rule it off something like this:

It is intended that those six columns cover the two pages, and if you get the book having 32 ruled lines, one for each day in the month, and one for the headings, you will find it most convenient. I got the idea from an old and successful farmer, who had kept a well-arranged diary most of his life. It is now twelve years since I started a diary, and keeping farm accounts, and would not give it up on any account.

Our education of to-day has a tendency to educate our boys away from the farm. Why is it that so many of our boys, born and reared on the farm, think it more honorable to stand behind a counter, or do office work in cities, when they might be the proud owners of a nice farm, be their own master, go and come when they like, and be able to spend their evenings with wife and family?

Much of this education can be taught our boys right in the home. See that they have plenty of good farm papers and books to read; encourage them to keep farm accounts; give them a plot of ground, or an interest in some branch of the farm; let them attend farmers' meetings in their neighborhood, and encourage them to win some prizes at the seed fairs and autumn exhibitions. All these things will surely tend to create a love for the farm, and a working hand in hand with nature. Why, the farmer is the happiest and most independent man on the face of the earth, and many who rented their farms and went to the city, soon came back satisfied there was nothing quite so good after all as the dear old farm.

Feed of all kinds is plentiful this winter, and stock are looking well. Dairying, which has been so profitable during the past year, will likely be done on a larger scale next season. The farm stock, which, on account of the feed famine two winters ago, were very much reduced at that time, but now are being stocked up, and the summer of 1907 will find the number of cows up to the full number again. Farmers are taking more interest in the care of their cows, feeding them better both winter and summer, because they find it pays. This question is being discussed at our Institute meetings this winter, "Does it pay to feed for milk production," and the almost unanimous opinion is that it does pay. Some few years ago, when cheese was 7 cents per pound and butter 16 or 18 cents, and the factory patron was paid off with 50 or 60 cents—and I have known some to get as low as 45 cents per hundred pounds for their milk—we then thought what a great thing it would be to be able to send our milk to the condensing factory and get 85 to 95 cents for our summer milk, and about \$1.25 for winter milk per hundred pounds, while now the average patron is getting that much from the local cheese and butter factory, and some have been paid as high as \$1.40, according to test, and they have their milk hauled from their door, and the by-product, either skim milk or whey, returned daily in the cans. Yes, dairying is indeed a profitable branch of farming, and the outlook for the approaching season is most encouraging. Fresh milk cows are now changing hands at about \$40.00, while a real choice one will bring much more than that. It is feared that the long-continued cold has frozen potatoes in some of the farmers' cellars. This proves the necessity of planting a wind-break about our buildings, as it is the wind, together with the frost, that penetrates. Young spruce bushes are easily obtained, and if protected from stock will become a shelter in a very short time.

Our fresh fish (smelts and eels) industry is sorely crippled this winter, because of the round-about way to market, and the heavy freight rates. Prince Edward Island is shut off from the outside world to a greater extent this winter than at any time since we entered confederation.

If even the Liberal members and supporters were unanimous on the tunnel question, I believe we would get it. Ottawa can boast yearly of the big surplus piling up; why not spend a few millions to connect the Island with the rest of the world? But in the meantime we should be unanimous in asking for a winter steamer from the Capes, which is certainly Nature's route to and from the Island in winter. Just think of nine miles from Cape to Cape, as compared with 35 miles from Picton to Georgetown, P. E. I., and the former route, almost daily, has long strips of open water, made so by the meeting of the tide in this, the narrowest place in the Straits of Northumberland! All that is wanted to make this winter route a success, is a proper wharf on either side, and proper facilities for handling freight. Prices are about as last quoted, with very little of anything moving just now: Pork, 84c.; oats, 40c.; hay, \$10; flour, \$2; winter apples, \$3 to \$3.50 per barrel. C. C. C.

JULY, 1906.

Date.	Wind.	Weather.	Work.	Notes.	Finances.
25—Wednesday	S. W.	Dull; quite cool	Cut 3 acres of hay	T. Jones' house burned	Cheque for milk.....\$ 52.75
26—Thursday	Calm	A very hot day	Hauled in 10 loads hay	Uncle Peter died	Sold a horse for..... 150.00
27—Friday	E.	Light showers	Repairing stable floor	Grandma spent the day	" 20 doz. eggs, 15c. 3.00

those who have made a success of their calling; we must get down to facts and figures in farming. How interesting it is for farmers to take up an agricultural paper and read statements of the yearly income of the many farmers who take pains and interest, and I may say, pleasure in keeping a strict account of the finances of their farm. Why should not more of those reports be given at Institute meetings? How often we hear farmers at such meetings make statements which are merely guesswork, and often quite misleading, which cannot be backed up by facts and figures. They will tell that they think they made so much in such a time, and they expect to make so and so in a certain length of time. These are not the kind of statements that

CEMENT GRANARY FLOOR SATISFACTORY.

Editor "The Farmer's Advocate":

In answer to T. N.'s question, I would say I have had a cement floor in my granary for eight years, and find it quite dry. It was a little damp the first year. I raised the floor about eighteen inches with small stones and gravel.

W. WORTHY.

THE DAIRY.

SUMMER FEED FOR DAIRY COWS.

1. How can pastures be improved for the summer feeding of dairy cows?
2. To what extent will the silo solve the problem of short pastures?
3. Have you tried alfalfa for this purpose?
4. What single grain, or mixture, has given readers of these enquiries the most satisfactory results, and how are they sown and fed?

To any one or all the above questions replies are requested, based on experience.

GOOD CREAMERY SHOWING.

Much is heard, and with good reason, of the profits of the cheese factory during the past season, but the report of the Princeton, Ont., creamery, to hand, shows that the butter business is well able to make a highly satisfactory showing. It showed that during the year 135,960 pounds, or 68 tons, of butter were made, the total value amounting to \$30,742.46. The average monthly overrun was 17 pounds butter to 100 pounds fat, and the average monthly price 23.81 cents per pound. Buttermilk sold for some \$300.

Mr. Lamont, owner of the creamery, at the annual meeting, referred to the fact that during 1906 an increase of 27 per cent. had been made over the output of the preceding year. He explained that prices realized at a creamery cannot be compared with newspaper quotations of Toronto market prices, the reason being that such quotations refer to prices paid by grocers to commission merchants, the freight or express charges from the creamery to Toronto, which amount to at least one-half cent per pound, being invariably added, as well as the one-cent-per-pound commission charged for selling by the commission merchant. He also claimed that, in spite of the very high prices paid for cheese in 1906, cheese had not paid as well as butter. In comparing the prices realized by the North Oxford Cheese Factory with the returns from the Princeton Creamery, it was seen that cheese had paid the patrons \$1.01 per 100 pounds of milk, whereas the same weight of milk sent to the creamery had realized 4.3 pounds of butter and 99 cents cash. This difference of 2 cents had been offset by at least 10 cents per hundred in favor of the creamery by the 80 pounds of skim milk fed on the farm to calves and hogs.

Mr. Stevens, of the Bank of Hamilton, Princeton, noted that the creamery had been the means of raising the value of farms and real estate in and around Princeton.

The manager of the creamery, Mr. H. W. Parry, to whom its success has been largely due, praised the quality of the cream and milk delivered at the creamery, but claimed that there was still room for improvement. It was absolutely necessary, he said, to cool the milk or cream to a low temperature immediately after milking or separating, also to wash the separator each time it was used. In discussing the question of variation of cream test, Mr. Parry said that separators were rarely run at the correct speed, usually too slowly. The speed should be regulated by using a watch.

MOST OF COWS WERE ON THE LOSS SIDE.

Editor "The Farmer's Advocate":

We have kept accurate individual milk records for about one year. The time occupied in so doing easily becomes a paying investment in the education given to those who make up the totals and comparisons, and barely reaches half a minute per cow in the stable. Why we began keeping records is that we wished to know whether our cows made a profit or loss. We learned that most of them were on the loss side, even when fed as near as might be the ideal ration. We learned that the effect of feeding turnips in winter was to increase the milk flow to its greatest; that regularity in hours of milking, and by the same milkers, was absolutely necessary; that many little things in connection with the care of cows were brought to our notice when the pail hung on the scales. To sum up briefly, I would say that no person can afford to omit keeping individual milk records, unless it is in the case of cows which are being discarded and put dry. I have mentioned that most of our cows made a loss, as is, I firmly believe, also true in thousands of other instances, because I think we should confess our failings as well as boast of our successes.

Nipissing, Ont.

J. P. ROBINSON.

DAIRY SESSION AT THE EASTERN LIVESTOCK AND POULTRY SHOW.

Upwards of 150 people were present at the session of the Eastern Fair devoted to dairying. Of the three addresses on the programme, Prof. Day's reasons why the dairymen of Eastern Ontario should raise more hogs was crowded off for want of time. Prof. H. H. Dean, of the Ontario Agricultural College, delivered a highly scientific, but deeply appreciated address, upon breeding dairy cattle. The greater part of it was printed in last issue. At the conclusion of the address, some of the dairymen present appeared to be a little at sea as to what course should be taken up in order to build up a dairy herd with any assurance of success. In answer to an enquiry, the Professor stated that, in his opinion, cows that are abnormally high producers are largely "sports," and cannot be depended upon to reproduce themselves. He left the impression that while good cows were more likely to produce good daughters than were indifferent or poor ones, he felt that so little dependence could be placed in any of them as breeders that it was largely a matter of chance.

Speaking of feeding, the Professor strongly urged good feeding while the cow is dry. He claimed that the nourishment a cow gets during her dry period has more influence upon her production the following season than what she eats when milking. A heifer is better not to come in until 30 months old. Breeding from immature stock was strongly condemned.

COW RECORDS.

Mr. W. F. Stephen, of Huntingdon, gave a most interesting and practical address upon cow records, based upon his own experience of four years of record keeping in his own herd. Until 1902, Mr. Stephen had done his best to build up a first-class herd by breeding from the best males and females, by keeping only the most promising heifer calves, and feeding the herd with the greatest possible care. He had, however, been only moderately successful. He was unable to detect the mere boarders in the herd, and as enquiries for bulls from the United States were usually accompanied by a request for the records of dams and grandams, he found it necessary to commence keeping records of his herd. In 1902 he invested \$4.00 in scales, and a



Martha Aaggie Netherland.

Holstein-Friesian cow. Official record, 69 lbs. milk in one day; nearly 18 lbs. butter in seven days. In auction sale of H. E. George, Crampton, Ont., at Napanee, March 29th.

similar amount in a Babcock tester, and commenced testing his herd of seventeen cows and heifers. He found it occupied about half a minute per cow each day to weigh the milk. He soon began to learn valuable lessons upon feeding, watering, changes of temperature, regularity in milking, and was able to guard against many fluctuations in production that he had no knowledge of previously. At the end of his first year his thirteen cows and four two-year-old heifers had given an average of 6,250 lbs. of milk, testing 3.8 per cent. of fat. This was equal to 269 lbs. of butter, which, when valued at 22c. per lb., gave \$59.36 per cow. The average milking period that year was 280 days. The best milker gave 9,907 lbs. of three-per-cent. milk, equal to 347 lbs. of butter; worth \$76.34. Another cow gave 8,585 lbs. of milk, testing 4%, or 400 lbs. of butter, worth \$88. The poorest cow that year gave 3,157 lbs. of 3.7 per cent. milk, worth in butter \$39.82. The best cow gave \$48 worth more butter than the poorest. Two of the herd went to the butcher as a result of that season's testing. Other rather poor ones were given another year, and made a better showing. This was about the experience of following years. Mr. Stephen had not made up his records for 1906, but the results for 1905 showed an increase in four years of 706 lbs. of milk, 1.01 per cent. of fat, 52 lbs. of butter, and an increased revenue per head of \$11.79. He claimed he could have increased the milk flow fully 1,000 lbs. in 1905, if grain had been fed during the period of dry pasture when the flies were bad.

Mr. Stephen's address was well received. A few men in the audience confessed to keeping milk records, and to finding great satisfaction and profit in so doing.

The care of Mr. Stephen's herd came up, and it was learned that during the past fourteen years his cows have been tied by the neck from November until spring

without ever going out of doors. He endeavors to keep his stable at about 55 degrees, but in very cold weather it runs down to 45 degrees. When this occurs he finds a fall in the milk flow of three pounds per head, in spite of better feeding. He has made repeated tuberculin tests of his herd and found no disease. He had no hesitation in stating that his herd was stronger and better now than it was fourteen years ago.

Mr. Stephen feeds three times daily when cows are milking, and twice daily when dry.

COW-TESTING ASSOCIATIONS FOR 1907.

Dairy Commissioner J. A. Ruddick sends us the following list of Cow-testing Associations which will be in operation under the auspices of the Dairy and Cold-storage Branch of the Department of Agriculture in 1907. Those marked with an asterisk will be new associations in 1907. The work of organization is still in progress, and it is expected that several more will be added to the list during the next few weeks. There are already 19 in Quebec, 16 in Ontario, and 1 in Prince Edward Island, or 36 in all.

Quebec.—*Henryville, St. Armand, *Pike River, Cowansville, Mansonville, *Dixville, St. Edwidge, *Hatley, *Coaticook, *St. Prosper, *Lotbiniere, *St. Justin, *Ste. Therese, *St. Marc, *St. Julie, *Chambly, *Upton, St. Camille, St. Jerome, Lake St. John.

Ontario.—*Shearer, *Keene, *Central Smith, *Pine Grove, *Warsaw, *Lorneville, *Beaverton, *Woodburn, *Oak Leaf, *Farmersville, *Gerow's (?), *Cleall's (?), *East and West Oxford, *Spring Creek, North Oxford, Princeton.

Prince Edward Island.—*New Glasgow.

THE "BIG FACTORY."

Editor "The Farmer's Advocate":

The East Zorra and Blandford Cheese and Butter Factory was built thirty-five years ago, and was at that time dubbed the "Big Factory," and it has always merited that name. Last year was not an exception to the others. The company distributed over \$60,000 to the 109 patrons for milk delivered. Last year 458,952½ pounds of cheese and 30,472 pounds of butter were manufactured. What other Ontario factory can show an equal record? The land, buildings and plant are estimated at \$9,000.

One of my sons subscribed for "The Farmer's Advocate" last November, and I may say we are all well pleased with the paper, and are very much interested in the different departments, especially that of dairying. Wishing you every success in future.

A. W. HARWOOD.
Oxford Co., Ont.

ANOTHER GREAT COW RECORD.

In a 60-day test, a Holstein-Friesian cow, owned by W. J. Gillet, president of the Wisconsin Dairymen's Association, has broken the world's butter record by forty pounds. The official test shows 5,326.7 pounds of milk and 260.5 pounds of butter. The cow gave birth to a calf on Dec. 19th, and the test was commenced on the fifth day of her period of lactation. The test was continued 64 days, during which period every milking was watched, the quantity of milk weighed and samples taken and tested.

The phenomenal yield was such that two separate tests were ordered, the first of 24 hours, and the second 48 hours, during which time additional representatives were sent from the experiment station. The cow was under constant supervision day and night. The best day in milk was 106 pounds, the best day in butter 5.74 pounds.

TURNIP FLAVOR AND SALTPETRE.

Editor "The Farmer's Advocate":

I saw an inquiry in your valuable paper some time ago about preventing turnips tasting milk and butter. In answer, I would say that, by putting one-half teaspoonful of saltpetre to eight gallons of milk, or one-quarter teaspoonful to six gallons of cream, the flavor of turnips is destroyed, and it is perfectly harmless.

Halton Co., Ont.

SUBSCRIBER.

[It is the observation of dairy experts that saltpetre merely deadens the turnip flavor, which will appear again in a short time. It is not considered advisable to put saltpetre into dairy products, as it is very questionable whether saltpetre is harmless.—Editor.]

BETTER VALUE THAN HE THOUGHT.

Editor "The Farmer's Advocate":

When I commenced to take "The Farmer's Advocate," I expected it was published only twice a month, and thought it cheap at that. I remember when father used to take it, about 25 years ago, when, I think, it was a monthly. I wouldn't be without it if it cost three dollars a year. I have a farm of 100 acres one mile and a half from town, and keep a dairy, and sell our milk in town for six cents a quart for the winter and five cents in summer. We are testing our cows now, though we have never done so before. We have 17 milking now.

Gray Co., Ont.

ISAAC WHITE.

GARDEN & ORCHARD.

MEETINGS TO ORGANIZE CO-OPERATIVE FRUIT-SHIPPING ASSOCIATIONS.

G. A. Putnam, Superintendent of Farmers' Institutes for Ontario, advises us that a series of special fruit meetings are now being held, to give advice and instruction in the matter of co-operation, and also directions as to spraying, pruning, cultivation, and general orchard management. The Department of Agriculture is prepared to give any assistance in its power to further the interests of co-operation among fruit-growers. The Department will also be prepared to send a speak-

er to give instruction in pruning and grafting during the month of April, provided application is made at once. We append a provisional list of those meetings to be held after this paper is published. It is quite likely that others will also be arranged for.

All applications for either co-operative or special meetings should be made at once to Geo. A. Putnam, Superintendent of Farmers' Institutes, Department of Agriculture, Toronto, Ont.

List of fruit meetings to be attended by Mr. A. E. Sherrington, Walkerton, and Mr. R. M. Baker, B. S. A., Ottawa; all meetings to begin at 2 p. m.: Pickering, March 21; Brooklin, March 22; Oshawa, March 23; Newcastle, March 25; Orono, March 26; Canton (Ladies' Hall), March

27; Brighton (Town Hall), March 28; Belleville, March 29.

List of fruit meetings to be attended by Mr. W. D. A. Ross, Chatham, and Mr. P. J. Carey, Toronto; all meetings to be held at 2 p. m.: Forest, March 21; Thedford, March 22; Arkona, March 26; Watford (Caldwell's Hall), March 27; Wyoming, March 28.

List of fruit meetings to be attended by Mr. D. Johnson, Forest, and Mr. A. Gifford, Meaford; meetings to begin at 2 p. m.: Harriston (Town Hall), March 21; Georgetown, March 22; Milton (Town Hall), March 23; Mount Nemo, March 25; Burlington, March 26; Cainsville, March 27; Hatchley Station (Church Basement), March 28; Burgessville, March 29.

Fruits Recommended for Planting in Ontario.

In the Province of Ontario are eleven fruit-experiment stations for the testing of varieties of fruit. Each station is in charge of a thoroughly practical man who devotes his experimental study to some one or two fruits. The work of these stations is in charge of a Board of Control, including Prof. Hutt, of the Ontario Agricultural College, and W. T. Macoun, Horticulturist, of the Central Experimental Farm, Ottawa. The Secretary is Linus Woolverton, M. A., of Grimsby. Last spring the Board of Control published a bulletin entitled, "Fruits Recommended for Planting in Ontario," which we quote as follows:

EXPLANATORY REMARKS.

General Lists.—After testing a large number of varieties of fruit at the various fruit stations, the Board of Control has decided upon the following as the most desirable for general planting.

District Lists.—The district lists given by the various experimenters, show varieties especially adapted to the sections represented by their stations.

The term "commercial" is intended to include the varieties most desirable for market purposes, and the term "domestic" those most desirable for home uses, either cooking or dessert.

These lists are given, as far as possible, in the order of ripening.

It is realized that there are many varieties not included in these lists which may do well under special conditions, yet which are generally not considered as desirable as those mentioned.

Apples.

General list of the most valuable market varieties:

Summer.—Astrachan, all sections, except extreme north; Duchess, all sections.

Fall.—Gravenstein, all sections except the St. Lawrence River and other northerly portions of the Province; Wealthy, particularly for northern sections; Alexander, especially for northern districts; McIntosh, adapted especially to the St. Lawrence River district, but can be grown over a much wider area; Fameuse, adapted especially to the St. Lawrence River district, but succeeds well over a much wider area; Blenheim, adapted to all sections except the St. Lawrence River district and other northerly portions of the Province.

Winter.—King, adapted only to the best apple sections, and succeeds best when top-grafted on hardy stocks; Hubbardston and Greening, best apple sections; Baldwin, succeeds best on clay land, adapted to the best apple districts; Northern Spy, adapted to the best apple districts, but can be grown with success farther north by top-grafting on hardy stocks. This is also a good method of bringing it into early bearing. Ontario, an early and abundant bearer, but short-lived. Recommended as a filler among long-lived trees. Adapted to same districts as Northern Spy, which it somewhat resembles. Stark, adapted to best apple districts.

Varities especially adapted to home use: **Summer.**—Transparent, all sections; Primate, best apple sections; Sweet Bough, best apple sections; Duchess, all sections.

Fall.—Chenango and Gravenstein, best apple sections; Wealthy, McIntosh and Fameuse, especially adapted to northern sections; Blenheim, best apple sections.

Winter.—King, best apple sections, should be top-grafted; Wagener, best apple sections; Swayzie, all sections except most northerly; Greening, best apple districts; Tolman, best apple districts; Northern Spy and Mann, adapted to best apple districts, but will succeed farther north if top-grafted.

Hardy varieties for sections north of Lat. 46 degrees:

Summer.—Yellow Transparent, Charlamoff.

Fall and Winter.—Duchess, Wealthy, Hubbardston, Longfield, Patten, Whitney, Hyslop, Scott Winter.

CRABS SUITABLE FOR THE WHOLE OF THE PROVINCE.

Whitney, a large crab, of high quality, suitable for planting in the extreme north where other apples will not succeed, may be used for

or cooking; Martha, an early crab, of fair quality; Transcendent, yellowish crab, season early autumn; Hyslop, dark, rich-red crab, of late season, quality only fair.

DISTRICT LISTS RECOMMENDED BY THE EXPERIMENTERS.

Niagara District, by Linus Woolverton.—Commercial: Astrachan, Duchess, Gravenstein, Alexander, Blenheim, Cranberry, Hubbardston, King, Greening, Baldwin, Spy. Domestic: Early Harvest, Sweet Bough, Duchess, Chenango, Gravenstein, Shiawassee, Fall Pippin, Fameuse, Swayzie, Wagener, Yellow Bellflower, Esopus (Spitzenburg), Tolman.

Bay of Quinte District, by W. H. Dempsey.—Commercial: Duchess, Gravenstein, Trenton, Alexander, Wealthy, Fameuse, McIntosh, King, Greening, Baldwin, Ontario, Seek, Spy, Tolman, Ben Davis, Stark. Domestic: Benoni, Primate, Gravenstein, Fameuse, McIntosh, Grimes, Greening (R. I.), Ontario, Spy, Tolman, Swayzie.

Burlington District, by A. W. Peart, Burlington, Ont.—Commercial: Astrachan, Duchess, Wealthy, Ribston, Blenheim, King, Greening, Baldwin, Spy. Domestic: Astrachan, Sweet Bough, Gravenstein, Wagener, Seek, Golden Russet.

Lake Simcoe District, by G. C. Caston.—Commercial: Duchess, Peerless, Alexander, Wolf, Blenheim, Pewaukee, Stark, and the following, if top-worked on hardy stocks: Greening, King, Ontario, Baldwin, Spy. Domestic: Astrachan, Primate, St. Lawrence, Fameuse, McIntosh, King, Spy.

Lake Huron District, by A. E. Sherrington.—Commercial: Astrachan, Duchess, Wealthy, Fameuse, McIntosh, Blenheim, Greening, Baldwin, Spy, Golden Russet, Ben Davis. Domestic: Transparent, Astrachan, Duchess, McIntosh, Grimes, Blenheim, King, Spy, Golden Russet.

St. Lawrence District, by Harold Jones.—Commercial: Duchess, Alexander, Wolf, Scarlet Pippin, Fameuse, McIntosh, Baxter, Milwaukee, Golden Russet. Domestic: Transparent, Brockville Beauty, Scarlet Pippin, Fameuse, McIntosh, Blue Pearmain, Golden Russet, Yellow Bellflower.

Algoma District, by Charles Young.—Commercial and Domestic: Astrachan, Transparent, Duchess, Charlamoff, Gideon, Longfield, Wealthy, Scott Winter.

Blackberries.

General List.—Agawam, Snyder, Eldorado, and for southern sections, Kittatinny.

District Lists.—Burlington District, by A. W. Peart. Commercial and Domestic: Snyder, Ancient Briton, Western Triumph, Agawam, Taylor. Lake Simcoe District, by G. C. Caston. Commercial and Domestic: Agawam, Eldorado.

Cherries.

General List.—Hardy: Orel 25, Orel 24, Early Richmond, Montmorency, Russian 207.

District Lists.—Niagara District, by Linus Woolverton. Commercial: Wood, Knight, Napoleon, Tartarian, Dyehouse, Montmorency, Late Duke, Elkhorn, Windsor, English Morello; Domestic: May Duke, Cleveland, Knight, Elton, Tartarian, Hortense, Choisy, Black Eagle, Mezel, Royal Duke. Lake Simcoe District, by G. C. Caston. Commercial and Domestic: Orel 24, Ostheim, Lithaur, Russian 207, Bessarabian, Dyehouse, English Morello. Algoma District, by Charles Young. Commercial and Domestic: Early Richmond, Montmorency, English Morello. Bay of Quinte District, by W. H. Dempsey. Commercial and Domestic: Early Richmond, Montmorency. St. Lawrence District, by Harold Jones. Commercial and Domestic: Early Richmond, Montmorency, Orel 24, English Morello.

Currants.

General List.—Black: Black Victoria, Champion, Lee, Naples, Saunders. Red: Cherry, Fay, Pomona, Red Cross, Victoria, Wilder. White: White Grape.

District Lists.—Burlington District, by A. W. Peart. Commercial—Black: Lee, Naples, Saunders; Red: Cherry, Fay, North Star, Prince Albert, Victoria, Wilder; White: White Grape. Lake Huron District, by A. E. Sherrington. Black: Champion, Naples, Saunders; Red: Pomona, Red Cross.

Gooseberries.

General List.—Pearl, Downing, Red Jacket. Whitesmith is one of the best English varieties, but is almost valueless on some soils and in some localities owing to mildew.

Grapes.

General List.—Commercial and Domestic—Black: Moore, Campbell, Worden, Concord, Wilder; Red: Delaware, Lindley, Agawam, Vergennes; White: Niagara, Diamond. For northern sections.—Black: Champion, Moore, Campbell, Worden, Wilder; Red: Moyer, Brighton, Delaware, Lindley; White: Winchell, Diamond.

District Lists.—Wentworth District, by M. Pettit. Commercial—Black: Champion, Moore, Campbell, Worden, Concord; Red: Delaware, Lindley, Agawam, Vergennes, Catawba; White: Niagara, Diamond. Domestic—Black: Black Delaware, Early Dawn; Red: Jefferson, Mills; White: Winchell, Golden Drop. Niagara District, by Linus Woolverton. Domestic: Moyer, Campbell, Worden, Delaware, Lindley, Brighton, Wilder, Agawam, Requa.

Peaches.

General List.—Commercial: Sneed, white-fleshed, clingstone, quality only fair, earliest of all; Alexander, white-fleshed, clingstone; Hynes, white-fleshed, semicling, quality good; St. John, yellow-fleshed, freestone, quality good; Mountain Rose, white-fleshed, freestone, quality very good; Early Crawford, yellow-fleshed, freestone, quality very good; Champion, white-fleshed, freestone, quality very good, for home use or near markets; Brigdon, yellow-fleshed, freestone, quality good; Fitzgerald, yellow-fleshed, freestone, quality very good; Reeves, yellow-fleshed, freestone, quality fair, large size; Elberta, yellow-fleshed, freestone, quality fair, good for long-distance shipments; Oldmixon, white-fleshed, freestone, quality good; Stevens, white-fleshed, freestone, quality good; Smock, yellow-fleshed, freestone, quality fair, very late, good shipper. Domestic: Hynes, St. John, Early Crawford, Oldmixon, Longhurst, Stevens.

District Lists.—Niagara District, by Linus Woolverton. Commercial: Sneed, Alexander, Greensboro, St. John, Early Crawford, New Prolific, Champion, Elberta, Willet, Smock; Domestic: Rivers, Hynes, St. John, Early Michigan, Lewis, Crosby, Champion, Reeves, Wonderful, Jacques Rareripe, Wheatland, Longhurst. Essex District, by W. W. Hilborn. Commercial: Alexander, St. John, Brigdon, Early Crawford, Fitzgerald, New Prolific, Engol, Elberta, Golden Drop, Kalamazoo, Banner, Smock; Domestic (White Flesh): Alexander, Mountain Rose, Oldmixon, Stevens; (Yellow Flesh): St. John, Early Crawford, Fitzgerald, New Prolific, Engol, Crosby, Golden Drop, Banner.

Pears.

General List.—Commercial: Giffard, Clapp, Bartlett, Boussock, Flemish (hardy, subject to spot), Howell, Louise, Duchess, Bosc, Clairgeau, Anjou, Kieffer. Domestic: Summer Doyenne, Giffard, Bartlett, Flemish (for the north), Sheldon, Seckel, Bosc, Anjou, Lawrence, Josephine, Winter Nelis.

District Lists.—Niagara District, by Linus Woolverton. Commercial: Chambers, Wilder, Giffard, Clapp, Bartlett, Hardy, Bosc, Howell, Louise, Duchess, Pitmaston, Clairgeau, Anjou, Easter Beurre; Domestic: Doyenne, Manning, Giffard, Boussock, Rostiezer, Marguerite, Sheldon, Seckel, Triumph, Ritson, Louise, Hardy, Diel, Anjou, Lawrence. Burlington District, by A. W. Peart. Commercial: Wilder, Clapp, Bartlett, Boussock, Louise, Duchess (dwarf), Anjou, Kieffer, Winter Nelis, Easter Beurre; Domestic: Wilder, Bartlett, Louise, Anjou, Winter Nelis. Bay of Quinte District, by W. H. Dempsey. Commercial and Domestic: Giffard, Tyson, Clapp, Boussock, Hardy, White Doyenne, Dempsey, Bosc, Clairgeau, Goodale, Lawrence, Josephine. St. Lawrence District, by Harold Jones. Domestic: Clapp, Flemish, Ritson.

Plums.

General List. Commercial and Domestic—American: These are extremely hardy, and are de-

Desirable where the European and Japanese varieties cannot be grown: Aitkin, Cheney, Bixby, Manakato, Wolf, Hawkeye, Stoddard; European: Bradshaw, Imperial Gage, Gueii, Shipper's Pride, Lombard (liable to overbear, requires thinning), Quackenboss, Yellow Egg, Grand Duke, Golden Drop (Coe), Reine Claude (one of the best for canning); Japanese: These are apparently quite as hardy as the European varieties: Red June, Abundance, Burbank, Chabot, Satsuma (red-fleshed, desirable for canning).

District Lists.—Lake Huron District, by A. E. Sherrington. Commercial and Domestic: Red June, Ogon, Burbank, Bradshaw, Imperial Gage, Gueii, Shipper's Pride, Victoria, Quackenboss, Yellow Egg, Monarch, Grand Duke, Satsuma. Georgian Bay District, by John Mitchell. Commercial and Domestic: Red June, Burbank, Washington, Bradshaw, Imperial Gage, Quackenboss, Arch Duke, Diamond, Monarch, Yellow Egg, Golden Drop (Coe), Satsuma, Reine Claude. Burlington District, by A. W. Peart. Commercial—European: Bradshaw, Niagara, Imperial Gage, Lombard, Yellow Egg, Glass, Reine Claude; Japan: Red June, Abundance, Burbank, Chabot, Satsuma; Domestic: Abundance, Saunders, Bradshaw, Imperial Gage, Smith, Orleans, Lombard, Yellow Egg, Satsuma, Reine Claude. Niagara District, by Linus Woolverton. Commercial: Red June, Burbank, Bradshaw, Chabot, Gueii, Golden Drop (Coe), Quackenboss, Satsuma, Reine Claude; Domestic: Abundance, Washington, Yellow Egg, Shropshire, Quackenboss, Satsuma, Reine Claude. St. Lawrence District, by Harold Jones. Domestic—European: Gueii, Lombard, Shipper's Pride, Glass; Japan: Red June, Burbank; American: Milton, Whitaker, Hammer.

Quinces.

General List.—Fuller, Orange (the leading market variety in Ontario), Champion (for Southern Ontario only, as it ripens too late for other sections).

Raspberries.

General List.—Black: Hilborn, Older, Gregg, Smith Giant; Purple: Columbian, Shafer; Red: Marlboro, Herbert, Cuthbert; White: Golden Queen.

District Lists.—Lake Huron District, by A. E. Sherrington. Commercial and Domestic—Black: Hilborn, Conrath, Older; Purple: Columbian, Shafer; Red: Marlboro, Herbert, Cuthbert.

Strawberries.

General List.—Commercial: Splendid (Perfect), Bederwood (P.), Warfield (Imperfect), not suited to light sandy soil; Greenville (Imp.), Williams (P.), Saunders (P.), Sample (Imp.), Irene (Imp.), Buster (Imp.). Domestic: Van Diemen (P.), Splendid (P.), Excelsior (P.), Senator Dunlap (P.), Ruby (P.), Bubach (Imp.), Irene (Imp.), Belt (P.), Lovett (P.).

[Note.—In selecting varieties for planting, perfect-flowered varieties should be included, to fertilize those having imperfect flowers.]

THE FARM BULLETIN

CO-OPERATIVE EXPERIMENTS WITH NITRO-CULTURE.

In reply to an inquirer, we have just written a somewhat lengthy article explaining the system of nitro-culture for treating the seed of alfalfa and other leguminous crops, to be sown on land where this crop has never previously grown, and where, therefore, there is reason to believe the soil does not contain the bacteria necessary for the vigorous growth of such crop. Since the above-mentioned article was prepared and put in type, we have received a communication from the Ontario Agricultural College, Guelph, Ont., announcing that the Department of Bacteriology was preparing a bulletin, based on the results of co-operative experiments with nitro-culture in 1906. The article we had written quoted freely from the bulletin published in March, 1906, summarizing results of experiments in 1905.

During 1906, 375 cultures were sent, of which 108 were to farmers in Nova Scotia, and from these the results were submitted to Principal Cumming, of the N. S. Agricultural College, Truro. Of the remaining 257, reports were received at Guelph upon 116, or a little over 45%. Sixty-eight, or over half of those reporting to Guelph, reported a benefit from the use of the culture.

Cultures for inoculating seed will again be sent out from the College during the coming spring, but as last season a large percentage of recipients of cultures, through carelessness or indifference, failed to send a report of their experiment, and as the Professor rightly believes that farmers sufficiently interested to conduct an experiment carefully will be willing to pay the cost of the culture, a price of twenty-five cents for each bottle of culture, an amount barely sufficient to cover the cost of materials and postage, has been affixed.

WHEN INOCULATION IS OF BENEFIT.

When a leguminous crop is thriving, it indicates either that the soil is plentifully inoculated with the bacteria necessary to produce nodules on that particular

species, or else that the soil already contains an abundant supply of nitrogen to support plant growth. In either case, the use of artificial cultures would be of little benefit. On the other hand, if the crop fails to do well, and on examination no nodules are found on the roots, the culture would probably be of benefit. Failure to thrive may be due to other causes than lack of nitrogen. The soil may lack available potash, phosphoric acid, or lime. Inoculation does not and cannot remedy this. When it is intended to sow seed of a legume which never has been grown upon the soil, inoculation of the seed should prove beneficial. This is true, even if other legumes have been grown upon the soil, as the bacteria-forming root nodules on one species do not necessarily form nodules on the roots of other species. If soil once becomes thoroughly inoculated as indicated by a successful leguminous crop, and the presence of numerous nodules, the use of artificial inoculation with later seedings is considered unnecessary if a three-year or five-year rotation is followed. The use of cultures will in no way compensate for carelessness in selection of seed, preparation of the soil, or subsequent care of the crop.

APPLICATION FOR NODULE-FORMING BACTERIA.

I desire to conduct an experiment with nodule-forming bacteria for: Red Clover, Alfalfa or Lucerne, Alsike Clover, Vetches, Peas, Soy Beans, Field Beans, Sweet Peas, Winter Flat Peas. (Strike out those not wanted.)

Pounds or bushels of seed to be inoculated. (Each bottle is sufficient for 60 pounds of seed.) Probable date of seeding.

If the culture is sent to me, I will: (1) Carry on the experiment according to the instructions received; (2) exercise care and accuracy in the work; (3) report the results of the experiment soon after harvest, whether successful or not.

Name..... Post Office..... Express Office..... County..... Province..... Enclosed find..... cents to pay for culture.

This application should be mailed to Bacteriological Laboratory, Agricultural College, Guelph, Canada.

In order that cultures may be prepared and sent promptly at the time they are desired for use, it is important that applications should be sent in as early as possible.

CRERAR'S SHORTHORN SALE.

The auction sale on March 13th, of the Beech Ridge herd of Shorthorns, belonging to Mr. Jas. A. Crerar, Shakespeare, Ont., attracted a very large attendance. The cattle were in very high condition; some of the older ones so fat that bidders appeared to be doubtful whether they would breed, which, perhaps, militated against the success of the sale, which could hardly be considered satisfactory for the class of stock offered. However, buyers made good bargains, and some fair prices were realized. The stock bull, Trout Creek Choice, was withdrawn at \$210, which was considered quite below his value. Following is the list of those selling for \$100 and over:

Table listing various Shorthorn cattle and their prices, including Gem of Ballechin 3rd, 3 yrs. old; Thos. Mercer, \$305; Ballechin Daisy 2nd, 6 yrs.; Jas. Hyslop, Stratford, 170; Ballechin Daisy, 10 yrs.; D. Forbes, Stratford, 110; Daisy A., 6 yrs.; Thos. Mercer, 160; Gem of Ballechin (Imp.), 9 yrs.; W. J. Shean, Owen Sound, 150; Ruby 4th, 5 yrs.; Geo. Hildebrand, Brodhagen, 125; Queen, 3 yrs.; Thos. Mercer, 235; Scottish Lass, 3 yrs.; Peter Colquhoun, Clifford, 220; Rosabel 6th, 2 yrs.; D. Hill, Staffa, 230; Ruby Lass, 3 yrs.; Geo. Hildebrand, 115; Minerva, 2 yrs.; T. Mercer, 180; Ballechin Daisy 3rd, 2 yrs.; D. Hill, 140; Scottish Lass 2nd, 1 yr.; T. Mercer, 125; Hero's Lass, 1 yr.; J. Campbell, Palmerston, 115; Rosebud, 1 yr.; T. E. Robson, Ilderton, 120; Claret Princess 8th, 1 yr.; T. Mercer, 100; Snowball Hero (bull), 1 yr.; A. Hastings, Cross Hill, 145; Gold Drop (bull), 4 months; R. Crerar, Shakespeare, 100.

THE NEW MEAT INSPECTORS.

Some 35 inspectors will be required to give effect to the meat inspection bill now going through the Canadian Parliament. To qualify for these positions, a five weeks' special course at the Chicago Veterinary College is prescribed, and at the first call about 160 veterinaries made application. Upon a more complete statement of the conditions of service being sent out, some withdrew and others failed to respond. Finally, 64 were authorized to take the course. Those who successfully pass the examination and declare their willingness to enter the service will receive a \$100 bonus, which will in part compensate for the outlay in going to Chicago, where the tuition fee alone is \$45. The salaries in the inspection service for full time of the inspectors will be from \$1,000 to \$1,200 per year, with necessary travelling expenses when on duty. It will probably be late in the present year when the act goes into effect. Applicants are now taking the Chicago course.

DAIRY INSTRUCTION AND SANITARY INSPECTION IN ONTARIO FOR 1907.

The Provincial Department of Agriculture has, in conjunction with the Dairymen's Associations of the Province, carried on a vigorous educational campaign during the past decade, for the purpose of bettering the quality of the cheese and butter produced in Ontario. It is admitted on all sides that much good has resulted to the industry through this campaign. This year, in order to place the instruction work upon a more workable and permanent basis, the Provincial Department of Agriculture has directed the instructors to visit every factory and creamery in the Province, and also to devote considerable of their time to advising the producers as to necessary improvements in methods in order to furnish the desired quality of raw material, and all this without charge to proprietors, makers or producers.

The proprietors and secretaries of factories being established this year, or which did not take instruction last year, are asked to notify the Department as to the name and location of said factory or creamery, and to indicate the date upon which they will likely begin operations. The instructors will be prepared to give instruction to all makers, and no charge will be made for the same. They will not, however, spend the whole day at a factory, unless there is something radically wrong, and it is found necessary to remain at the factory for a whole day or more to clear the difficulty up.

All instructors will be clothed with the authority of sanitary inspectors, and thus have a right to visit any factory, creamery, or private dairy; also the premises of any producer, to inspect the same from a sanitary standpoint. If conditions are found unsanitary, the inspector will give instructions as to how best these conditions can be overcome. A reasonable time will, in all cases, be allowed for placing the premises in a satisfactory condition. If the producer, or proprietor, does not comply with the request of the instructor, then an appeal will be made to the Director of the Dairymen's Association living nearest the factory, creamery, or place of producer concerned, the Chief Instructor, and a representative of the Department of Agriculture, whom will finally decide as to the improvements required and insist upon the same being made within a reasonable time. It will not, of course, be necessary to adopt extreme measures in many cases, for the great band of dairymen in Ontario are awake to the necessity for placing the industry upon a safe and permanent basis.

It has been decided not to have the instructors devote their time to testing milk, which should be dealt with by those who have the business of the factory in hand. It is far more essential that the time of the instructor be occupied in endeavoring to improve the quality of the raw material. If the authorities of a factory state that they have clear evidence of milk having been tampered with, then the instructor for the district will be allowed to assist in making a further test.

The Department wishes it clearly understood that the work of an inspector-instructor will be essentially that of instruction; but in the few instances where the conditions, so far as sanitation is concerned, are detrimental to the production of a high-class article of cheese, and the persons concerned refuse to make the improvements recommended, there will be no hesitation in putting the necessary machinery to compel payment of a fine from \$50 to \$200.

WHAT THE SPLIT-LOG DRAG HAS DONE.

The condition of the highways are an indication of the progress of the country, according to John R. Fulkerson, member of the Illinois Highway Commission, in an address before the State Farmers' Institute at Quincy. The roads of Europe are far better than those in the United States, and those in the eastern part of the United States are far better than those in the western part. There are three reasons for this: First, they have had more time to improve their roads; second, they have had more money; and, third, they are continually working their roads instead of putting it off until fall, when they have nothing else to do.

I am a strong advocate of the road drag, because with a drag an intelligent man can do a great deal of good, and an ignorant man can do no harm. This is more than we can say of the road grader.

What can be more discouraging to us than to drag a buggy through the mud three months in the year, and spend the next three months in bumping over the knobs; then, with a grader to throw all the weeds, grass, etc., into the middle of the road, so you will have to spend the next six months of the year riding on a side hill.

WHAT THE ROAD DRAG HAS DONE.

The best road we have in Jersey County is a road that has been kept up by dragging; there has not been a grader on it in three years. The best road in Christian County has been maintained by a drag, and that road has not had a grader on it for fifteen years. The best time to drag a road is when it is very wet; when the water and slush will get in front of the drag. In this way you get a slick coating behind the drag, and when that dries out have a hard crust, and that will let the water drain off quickly.

A Money Magnet

One advantage to you of a Savings Account at The Bank of Toronto is that it draws to itself many odd sums of money that can easily be spared, and your balance will therefore be a growing one.

Another advantage is that these sums become money-producers for you through the interest earned.

And your money in this Bank will be safe.

BANK OF TORONTO

INCORPORATED 1855

ASSETS - - - \$27,000,000

MARKETS.

TORONTO. LIVE STOCK.

Receipts of live stock at the City and Junction markets last week were light. Trade was brisk, with prices firm. Junction receipts of cattle on Monday, 1,760. Exporters easy for lack of shipping space. Exporters.—Prices ranged from \$4.90 to \$5.40, the bulk selling at \$5.00 to \$5.15; export bulls sold at \$3.75 to \$4.50. One exceptionally fine load sold at \$5.50 per cwt.

Butchers'.—Prime butchers' cattle very scarce, not enough to supply the demand. Prime Easter lots, \$5.25 to \$5.40; several loads of light exporters, 1,200 to 1,250 lbs., each sold at \$5 to \$5.25 per cwt.; loads of good, \$4.40 to \$4.70; medium butchers' and good cows, \$4 to \$4.30; common, \$3 to \$3.70; canners, \$1.50 to \$2.75 per cwt.

Milk Cows.—Trade was moderately good, but the larger number offered were of medium quality. Prices ranged from \$35 to \$55 each.

Veal Calves.—Receipts of calves have been fairly large, especially of the dairy class, better known as "bobs," on account of which, prices were easier for the bulk. Prime new-milk-fed calves are scarce, and would bring as high prices as ever, being worth from \$7 to \$7.50 per cwt.; common to medium, \$3 to \$6.50 per cwt.

Sheep and Lambs.—Offerings have been light. Prices firm. Export ewes, \$4.75 to \$5.25 per cwt.; rams at \$3.75 to \$4.50; lambs of prime quality sold at \$7 to \$7.50; common lambs at \$5.50 to \$6.50 per cwt. A very few spring lambs are being offered. Prices for them range from \$8 to \$10 each.

Hogs.—Deliveries of hogs have been light, but prices were, if anything, easier. Selects are quoted at \$6.90; lights and fats, \$6.65 per cwt.; sows, \$4 to \$5 per cwt.; stags, \$2.50 to \$3.70 per cwt.

Horses.—The supply of horses last week was equal to the demand, which was good. For good, heavy-draft, general-purpose and drivers, as well as first-class delivery horses, there is an excellent demand. Roadsters showing speed and good staying properties are hard to get, and are much sought after, with prices still going higher. The best horses in nearly every class are selling well, but the plain and medium offerings are weak, and, if anything, lower than they have been, on account of the large numbers offered. Burns & Sheppard, who are now in charge of both sale stables, report prices as follows: Single roadsters, 15 to 16 hands, \$125 to \$175; single cobs and carriage horses, 15 to 16.1 hands, \$150 to \$175; matched pairs, \$250 to \$450; delivery horses, 1,100 to 1,200 pounds, \$120 to \$160; general-purpose and express horses, 1,200 to 1,350 pounds, \$125 to \$175; draft horses, 1,350 to 1,750 pounds, \$175 to \$225; second-hand workers, \$60 to \$80.

BREADSTUFFS.

Grain.—Wheat—No. 2 white, 72½c.; No. 2, mixed, 72c.; No. 2 red, 72½c.; No. 2

Goose, 67½c.; Manitoba, No. 1 Hard, 90c. bid, North Day.

Corn.—No. 3 American yellow, 53½c. to 54c.; No. 2 yellow, 45c. to 46c.; Ontario, 46c. to 47c., basis, Chatham freights.

Oats.—No. 2 white, 39½c., sellers; buyers, 38½c.; No. 2, mixed, 38½c.

Rye.—No. 2, 64c.

Barley.—No. 2, 52c.; 3X, 50½c.; No. 3, 49½c.

Peas.—No. 2, 79c.

Buckwheat.—57c. to 58c., outside points.

Bran.—Scarce, prices nominal, at \$22.

Shorts.—\$23 to \$24, and hard to get.

Flour.—Manitoba patent, \$3.85, on track, at Toronto; Ontario, 90 per cent. patents, \$2.67 for export; Manitoba patent, special brands, \$4.50; strong bakers', \$4.

COUNTRY PRODUCE.

Butter.—Receipts moderate. Prices firm as follows: Creamery pound rolls, 28c. to 30c.; creamery boxes, 26c. to 27c.; dairy pound rolls, 24c. to 25c.; tubs, 21c. to 22c.; bakers' tub, 19c. to 20c.

Eggs.—New-laid, 20c. to 21c.

Cheese.—Stocks are reported light. Prices firm. Large, 14c.; twins, 14½c.

Honey.—Market steady; strained, 12c.; combs, per dozen sections, \$2.60 to \$2.75.

Evaporated Apples.—9c.

Potatoes.—Market strong. New Brunswick Delawares, car lots, on track, at Toronto, \$1 per bag.

Poultry.—Receipts light. Turkeys, 16c. to 18c. per lb.; geese, 11c.; ducks, 12c. to 14c.; chickens, 12c. to 14c.; hens, 8c. to 10c. per lb.

Hay.—Baled—Market steady; No. 1 timothy, \$11 to \$12.50 per ton; No. 2, \$8.50 to \$9, for car lots, on track, at Toronto.

Straw.—Baled, \$7 per ton for car lots, on track, at Toronto.

SEEDS.

Toronto seedsmen are quoting the following prices to the trade for re-cleaned seeds for spring sowing as follows: Red clover, \$14.50 to \$16.50 per 100 lbs.; alsike, \$10.50 to \$13 per 100 lbs.; timothy, \$5 to \$7 per 100 lbs.

HIDES.

E. T. Carter & Co., 85 Front St., have been paying the following prices: Inspected hides, No. 1 steers and cows, 10½c.; No. 2 steers and cows, 9½c.; country hides, cured, 9c. to 9½c.; country hides, green, 8c. to 8½c.; calf skins, No. 1, city, 13c.; calf skins, No. 1, country, 11c. to 12c.; sheep skins, each, \$1.55 to \$1.65; horse hides, \$3.50 to \$3.75; horse hair, No. 1, per lb., 30c. to 32c.; tallow, per lb., 5½c. to 6c.

MONTREAL.

Live Stock.—The situation in export circles is not very encouraging. Shippers are in no hurry to book space, and none has yet been taken from Montreal for the opening of navigation. There is also very little demand from Portland, Me., and St. John, N. B., for immediate shipment. Rates from St. John, N. B., are 25s. to 30s. to Liverpool, 30s. to London, 25s. to Manchester, and 35s. to Glasgow. There will be no live-stock shipments from Portland to Liverpool for the balance of the month and April; Bristol, 25s., and Glasgow, 35s. The local market is fairly brisk. The offerings were larger than previously, owing to the milder weather, and the quality showed some improvement. Buying was active, on the part of butchers, that on the part of exporters light. Choicest cattle, 5c. to 5½c. per lb., as to quality; fine stock, 4½c. to 5c., and good, 4c. to 4½c.; medium, 3c. to 4c., and common, 2½c. to 3c. per lb. Calves are coming along more freely, and prices range from \$2.50 to \$4 each for fair quality, \$5 to \$7 for fine, while poor stock, unfit for food, sold at \$1 to \$2. Sheep are selling at 4½c. to 5c. per lb., and lambs, 6½c. to 7c., spring being about \$6 to \$7 each. Hogs steady, 7c. to 7½c.

Horses.—The recent milder weather, occasioning the breaking up of the winter, increased the demand for horses. Transportation companies require a greater number to get through with the same amount of work. The offerings, however, are as light as ever, and the market is quite firm. Prices are: Heavy-draft, 1,500 to 1,700 lbs., \$250 to \$300 each;

light-draft, 1,400 to 1,500 lbs., \$200 to \$250; express, 1,100 to 1,300 lbs., \$175 to \$225; common drivers, \$50 to \$100, and choice driving and saddle animals, \$350 to \$500 each.

Dressed Hogs and Provisions.—Demand is good for everything offered, and prices are from 10c. to 10½c. per lb., for abattoir-dressed, choicest, and 9½c. to 9½c. for country-dressed. Smoked meats are steady.

Potatoes.—Market is easier. Milder weather has given occasion for heavier deliveries, and as these are now pretty free, former prices cannot be made. Green Mountains, 96c. to 95c. per 90 lbs., carloads, on track; other qualities of whites, 80c. to 85c., on track, and in some cases, 75c. Reds somewhat lower. Jobbing prices, for deliveries made into store, per bag of 90 lbs., are 5c. and 10c. higher than carload lots.

Eggs.—The market for eggs showed quite a drop last week. Prices are a little irregular, from day to day, according to arrivals and demand. On the whole, receipts are large, the weather being favorable. Everything is now out of the market, save new-laid Canadian eggs, and these are selling at an average of 23c. per dozen. Some report sales at 22c., and others at 24c. Some firms report that they are compelled to pay 23c. in the country, and that they are doing business (as is usual at this time of year) at a loss. Too much faith need not be placed in the lower figures.

Butter.—There would seem to be a little new-milk butter arriving, but it will be the end of the month, before the volume will amount to much. It would seem to be costing at least 27c. in the country, and selling here at 30c. Save for this, choicest is quoted at 26c. to 27c., and any reasonably good butter is selling at 25c., and more stocks are running low, and the market is firm.

Cheese.—Little stock left; prices barely holding, as the demand from England would appear to be lacking. Probably 13½c. is a fair quotation for best. No prices have not yet been heard on fodder cheese, but possibly 12½c., or a fraction more, in the country, may be the opening figure.

Hayseed.—Red clover and alsike are all in, and will shortly commence to go out again. As for timothy, dealers are getting it in now in very small quantities, but they expect it to move more freely during the coming few weeks. They are offering \$1.50 to \$2.50, on an average, per bush, of 48 lbs., in the country.

Flour and Feed.—The goods cannot be had. If they could, possibly \$22.50 might be paid for Manitoba shorts, and \$1 more for bran, per ton, bagged. Millers are quoting \$21 for bran, and \$22 for shorts, but these prices are for future delivery, and it is possible might not be accepted, as the car situation is so uncertain. Flour is quoted steady at \$4 per bbl., for Manitoba, in bags, and \$4.60 for Manitoba patents, demand being fair.

Grain.—Montreal is relatively the cheapest oat market in Canada at present, it is claimed. Stocks are pretty heavy, being 182,000 bushels. Demand is fair. Prices are 13½c. to 14c. for No. 2 stock, in store; 12½c. to 13½c. for No. 3, and 11½c. to 12½c. for No. 4. The market for corn is dull and firm, No. 3 American yellow being 57c. to 57½c., and No. 3, mixed, 56½c. to 57c. Buckwheat is nominally 56c.

Hides and Tallow.—This market shows considerable changes. The price of hides and calf skins has advanced considerably, while that of tallow is lower. Tanners are renewing their stocks. Beef hides are selling to dealers, here, at 10c., 11c., and 12c. per lb., for No. 3, 2 and 1, respectively, while calf skins are 2c. higher, at 12c. per lb. for No. 2, and 14c. for No. 1. Beef hides sell to tanners at an advance of 3c. on quotations. The cause of the advance in calf skins is the shorter hair, and better quality of the new stock. Sheep skins are steady at \$1 each, as are also horse hides, at \$2 for No. 2, and \$2.50 each for No. 1. Tallow, after the recent rise, has eased off a little, and is now quoted at 1c. to 4c. per lb. for rough, and 5½c. to 6½c. per lb. for rendered. Wool continues unchanged and dull, at pulled lambs, brushed, 30c. to 32c. per lb., unbrushed, 30c.; Can. pulled, brushed, 30c., and unbrushed, 25c. to 2½c., and in the grease, brushed, 27c. to 29c.; Can. fleece, tub-washed, 25c. to 28c., and in the grease, 18c. to 20c.; N.W. Merinos, 18c. to 20c.

BUFFALO.

Cattle.—Active and firm. Prime steers, \$5 to \$6.

Veals.—\$4.25 to \$8.75.

Hogs.—Mixed Yorkers and pigs, \$7.35; roughs, \$6.50 to \$6.60.

Sheep and Lambs.—Active and steady; lambs and yearlings, 16c. to 15c. lower; lambs, \$5 to \$8; yearlings, \$6.75 to \$6.85.

CHICAGO.

Cattle.—Common to best steers, \$4.25 to \$6.75; heifers, \$2.65 to \$5.25; cows, \$3.25 to \$5; bulls, \$3.25 to \$4.40; stockers and feeders, \$2.50 to \$5.25.

Hogs.—Choice heavy shipping, \$6.82½ to \$6.85; light butchers', \$6.85 to \$6.90; light mixed, \$6.85 to \$6.90; choice light, \$6.85 to \$6.92½; packing, \$6.40 to \$6.85; pigs, \$4.50 to \$6.80; bulk of sales at \$6.80 to \$6.85.

Sheep and Lambs.—\$4.75 to \$6.50; yearlings, \$6.25 to \$7; lambs, \$6.25 to \$8.00.

BRITISH CATTLE MARKET.

Canadian steers, 11½c. to 11½c.; States steers, 11½c. to 12½c.; cows, 10½c. to 10½c.; bulls, 9½c. to 9c.

GOSSIP.

Attention is directed to the advertisement of an important auction sale of 55 Shorthorn cattle and a number of Clydesdale mares, fillies and colts, property of Mr. Valentine Ficht, Oriel, Ontario, 6 miles from Woodstock, to take place on Thursday, March 28th, at his farm. Included in the sale is the grand red three-year-old stock bull, Lavender's Pride—52595—sired by the Cruickshank Clipper bull, Imp. Cicely's Pride, bred by His Majesty the King, a Toronto first-prize winner, dam Lavender 42nd, of the Sittytton Lavender family, by Golden Measure (imp.), grandam Lavender 41st (imp.). This is one of the most choicely-bred bulls in Canada, a son of superior prizewinning parents and a capital individual, worthy of his breeding. The young things in the herd are by this sire, and all the females of breeding age are in calf to him, or have calves at foot got by him. A dozen young bulls are included. The Clydesdale mares are in foal to high-class imported stallions, and should find ready buyers. See the advertisement in this paper. Send for the catalogue, and take in the sale, whether the catalogue reaches you in time or not.

The thirty-seventh annual statement of the Mutual Life Insurance Co., of Canada, just made public, shows that the new business for last year amounted to 3,026 policies, amounting to \$5,703,547, and, with revived policies, the total for the year was \$5,555,539. All of this, with the exception of \$46,000 written in Newfoundland, was obtained in Canada. The total amount of business in force was \$46,912,107.58, and 30,986 policies, showing a net addition for the year of \$2,714,453. The income for the year came to \$2,072,423.13, being for premiums, interest and rents and profits from the sale of real estate. During the same period, the total amount paid to policyholders was \$679,662.20; divided as follows: Death claims, \$327,975.50; matured endowments, \$168,486; purchased policies, \$88,667.47; surplus, \$83,947.55, and annuities, \$10,645.68. The expenses and taxes were \$338,717.40, being \$10,224.36 less than in 1905, and only 16.34 per cent. of the total income. At the close of the year, the cash assets came to \$9,960,845.20. The directors say that the policy of the company with regard to investments has been maintained, and no losses were made in investments in 1906, and so far as can be foreseen none are anticipated. Interest payments were well met, the amount outstanding on December 31st being only \$17,056.26, some of which has since been paid. Some of the arrears were due on western loans, and the difficulty in marketing grain is held responsible for the delay in payment. In Ontario all mortgage obligations were extraordinarily well paid. The increase in the surplus over 1905 was \$251,377.46. C. E. German is the general agent for London and district.



HOME MAGAZINE



Life, Literature and Education.

(Contributions on all subjects of popular interest, whether relating to the Literary Society discussions or not, are always welcome in this Department.)

OUR LITERARY SOCIETY.

Study VI.

Was Literary Study VI. too hard? Not harder, we think, than Peele Castle. Were our students tired of Wordsworth? Yet, better (is it not?) to really get a grasp on one poet before proceeding to another. Was Tintern Abbey too long, as one correspondent complained, for the time given for its study? To this last charge we plead guilty, and to this reason do we attribute the fact that not nearly so many wrote on Tintern Abbey as on the preceding studies. However, we dare to hope that of the great non-writing majority not a few have been doing as has Mr. MacCallum, who kindly wrote us: "Although I am not sending in any work on 'Lines on the Wye,' I am studying it just as hard as if I were."

The quality of the answers sent is, we are glad to say, quite up to the highest mark ever obtained by the Literary Society. S. E. Leeson, Bothwell, Ont.; Elic, Huron Co., Ont., and J. B. Powles, Victoria Co., Ont., are this time the winners. "Gretchen" also sent in a very good paper, and E. McCullough, while displaying, we imagined, traces of juvenility in almost every answer, occasionally hit a point with a rather remarkable intuition. . . . In the optional subject, Secretary Root's address, Mr. Way is the successful one.

Now, before setting down the answers to the questions on Tintern Abbey, we ask every reader of this Department to provide himself or herself with our issue of Feb. 7th, and to refer constantly from question to poem, and from poem to answer—yes, even from answer back to poem again. There isn't the slightest use of merely reading over the answers without doing this; one might as well put the Department in the stove and be done with it. But by giving just this amount of attention, some of the beauties of the poem—unless to absolute Peter Bells—are bound to appear, and the reader can never feel again that he knows quite nothing of Wordsworth. Tintern Abbey is continually finding new admirers; only the other day we heard one of the foremost literary men of this Province enthusiastically proclaim it "one of the finest poems ever written"; but not, perhaps, until this prosaic age has advanced to the idealizing of something higher than mere dollars and cents will the full import of its message be fully understood.

LINES WRITTEN ABOVE TINTERN ABBEY.

Question 1. "The Wye River rises in the Cambrian Mountains in Wales, and runs in a southerly direction through Hereford County (my father's birthplace), England, into the Severn River."—J. B. Powles.

2. "With a sweet inland murmur"—much more musical and more to Wordsworth's fancy than the 'ocean's roar.' One might call the former Wordsworthian and the latter Byronic.—Mr. Powles. Elic remarks that "'murmur' adds to the quiet of the scene, and 'inland' to its seclusion." A point overlooked by all of our correspondents is that the river is not affected by tides above Tintern, hence the murmur would be truly "inland."

3. Lines 5-8: "Stretching in front is an already secluded scene; but with the steep, lofty cliffs in the background, reaching up till they meet the quiet sky above, walls and roof seem to be added, so that an impression of being shut in entirely from the outside world is felt, and a deeper sense of seclusion produced."—Elic.

4. (a) "The orchards and woods being all of one green hue, it is impossible to say where the orchard ends and the woods begin. The two seem continuous."—Gretchen. (b) Elic and Gretchen both grasp the pretty idea of the hedgerows being like playful children escaped from the wood. "As if," Elic says, "like sportive children, the younger part of the wood has escaped from the mother-wood, and, getting beyond its reach, was now growing up without care or restraint. I take it that the hedgerows had been much neglected, and allowed to grow wild again, until they seemed only a part of the natural woods."

5. Several of our students here took the idea that there were actually gypsies or a hermit among the trees. We feel inclined, however, to favor Mr. Powles' interpretation that only a comparison was intended. He says: "Spectators would see a smoke curling up through the trees from some farmhouse, and from its appearance would think it like the fire of some gipsy camp, or of someone who lived alone among the hill caves."

6. "During the five years that had passed since Wordsworth had visited these scenes, he had many times been cheered by the memories of what he had seen and heard; 'fond memory' would bring the light round him of these bygone days. Again in spirit would he visit the lovely scenes, and this would quiet his mind, and in his weary hours these sweet sensations would come in upon him and be a blessing. They had, in fact, the effect of turning his thoughts into purer, cleaner, brighter channels, and making him a better man—one of nature's noblemen, an example for future generations. What a grand teaching this is for parents to implant in the minds of their children—a love for nature, for the woods, the sunshine, and the flowers, so that when sorrow comes the gloom may not fill the whole horizon, but be tempered by the memory of happy hours."—J. B. Powles.

7. Lines 45-51: "The thoughts become so elevated that we become oblivious to all external things, and the mind wanders into another world—a soul world, as it were—where all is so harmonious that the inward eye is able to see and understand the real working of things."—Elic. "This is a description of a poet's inspired mood, a time of supreme exaltation. Lifted above the earth, all human

shackles for the time dissolved, the soul stands forth unhampered by mortal barriers, face to face with the Infinite, ready to catch the Divine whisper, and to read life's mysteries."—S. E. Leeson.

8. Possibly a combination of the following will bring out the full idea: "The poet has known the dreariness of city life, when the days were only 'daylight,' with nothing of nature to cheer and inspire."—S. E. Leeson. To Wordsworth this was undoubtedly true. "Gretchen" expresses the same thought. "No man is always wise, nor can any man be always kept free from the 'joyless daylight,' the days when one's brightest hopes are dashed to the ground and we seem to think the powers that be are working for our downfall. Wordsworth recognized that, as in nature it was not all sunshine, so it was in life."—J. B. Powles. "The daylight had joyless shapes, not in the shapes of nature, but because of the disturbing influences of man. In another poem he expresses, I think, a similar thought, 'And much it grieved my heart to think—what man has made of man.'"—Elic.

9. Lines 61-64: "Thoughts that had been born at sight of these scenes had almost died out because they had not been fed by frequent sights of them. Now that he again visits the spot, they revive again, at first indistinct and in confusion, but gradually rearranging themselves as one thing after another meets his eye, until at last they stand clear and distinct in his mind."—Elic. Wordsworth is not the same man that he was five years before, and somewhat painfully recognized the fact. E. McCullough notes this in her essay. She says: "In five years he returned. Everything appeared very much the same, but he was altogether changed himself. He was older, and could see into the depths of nature more."

10. He is feasting his eyes upon the beauty of this scene, and will carry it away in his memory, so that when he wants to enjoy life or have food for thought in years to come he will appeal to his memory, and not in vain. I think the meaning is the same as in "To a Highland Girl," where he says: "In spots like these it is we prize. . . . Our memory, feel that she has eyes."—Elic. "Just as in the past, recollections of happy hours spent amid these exquisite surroundings have brightened lonely years, so he hopes the future will be blessed by thoughts of this moment. There will be soul food and spiritual refreshing in such remembrances."—S. E. Leeson. "This picture, upon which he now feasts, will be food for reflection when he can no longer see it, and it will, as heretofore, help him to live cheerfully."—Gretchen.

11. "We often hear it said, 'You cannot put an old head on young shoulders,' and it is well. Youth is the time for brightness, vivacity, beauty; age brings wisdom, responsibility, fruit. The poet, as he describes himself, was, when young, as full of life as the bounding elk. Where nature led he followed, and he loved the more violent forms of nature—the mighty sound of the cataract, the mountain, the deep and gloomy wood. Their rugged strength

was to him the great moving spirit that guided his affections, and so sufficed him that he had no need to search for the more refined and chaster beauties in nature. This description is very natural. Youth is not naturally studious or thoughtful."—J. B. Powles. This answer is right as far as it goes. One might, perhaps, judge from Wordsworth's reference, further down, to the "meadows," that as he grew older the gentler forms of nature impressed themselves on him more and more; yet, it is a question whether nature in every form did not always appeal to Wordsworth. Another point should, however, be added to the answer, viz., that in youth he had no sympathy with humanity. As Gretchen says: "When a youth, the poet loved to commune with nature, and desired no intercourse with man. He was content to live isolated. 'Hand in hand with her (nature) he walks, . . . Face to face, with her he talks.'" Just in passing, do you not think, Mr. Powles, that Wordsworth, in boyhood, was a rather extraordinary youth?

12. "Since those days, life has taken on deeper meanings and human sympathies have awakened. He has turned from the wondrous creation of the Creator, and found God in nature, a moral uplifting and a more spiritual joy."—S. E. Leeson.

13. Several correspondents here quote from "To a Highland Girl," "I bless thee with a human heart," etc. Among many examples may be especially noted the following, from "Intimations of Immortality":

"What though the radiance which was once so bright
Be now forever taken from my sight,
Though nothing can bring back the hour
Of splendour in the grass, of glory in the flower;
We will grieve not, rather find
Strength in what remains behind;
In the primal sympathy
Which having been must ever be,
In the soothing thoughts that spring
Out of human suffering,
In the faith that looks through death,
In years that bring the philosophic mind."

14. To this question several answers were submitted. We should judge that those who chose lines 91-105, and again, 110-114, and 126-138 were right. "He sought to teach mankind to be content with humble life and simple joys. He says his 'cheerful faith' is 'that all which we behold is full of blessings.' He believed that a universal appreciation of nature's majestic beauties would lead to deeper reverence and understanding of the Divine power behind it, and higher ideals of life as a consequence."—S. E. Leeson. "Wordsworth felt the presence of God in all nature, and through nature felt God working in him for good, teaching, praising, admonishing, soothing and sympathizing with him, leading him higher and higher, until he was enabled to 'see into the life of things' as only few can. He calls himself a 'Worshipper of Nature,' but is rather a worshipper of the Creator of nature."—Elic.

15. "In viewing nature, there is, besides the beauty apparent to the eye, the glow added by the imagina-

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tion—what the appreciative heart 'half creates.'—S. E. Leeson. Nearly all answered this correctly.

16. Nearly all have answered correctly. S. E. Leeson's is the most comprehensive: "These lines indicate the deep friendship and sympathy existing between the poet and his sister. In her he sees the reflection of his own impulsive youth. The sight of her is like the revival of a delightful memory."

17. "Type of the wise, who soar but never roam, . . . True to the kindred points of heaven and home."—Quoted by several. See, also, "Personal Talk":

"I am not One who much or oft delight
To season my fireside with personal talk,—
Of friends, who live within an easy walk,
Or neighbors, daily, weekly, in my sight:
And, for my chance-acquaintance, ladies bright,
Sons, mothers, maidens withering on the stalk,
These all wear out of me, like forms with chalk
Painted on rich men's floors for one feast-night.

Better than such discourse doth silence long,
Long, barren silence, square with my desire;
To sit without emotion, hope, or aim,
In the loved presence of my cottage fire,
And listen to the flapping of the flame,
Or kettle whispering its faint under-song.

Dreams, books, are each a world; and books, we know,
Are a substantial world, both pure and good.
Round these, with tendrils strong as flesh and blood,
Our pastime and our happiness will grow."

18. S. E. Leeson chooses lines 91—108, Gretchen 45—51, J. B. Powles 155—165, E. McCullough 96—106, Elic 126—138. We should like, were it possible, to hear these students debating their reasons.

19 and 20. Marks for these answers fell in the following order: 1, S. E. Leeson; 2, J. B. Powles; 3, Elic; 4, Gretchen; 5, E. McCullough. As we are somewhat crowded for space this week, we beg permission, instead of publishing these very

creditable essays (if we published one, we should feel that we must publish all), to give the very excellent abstract of the piece written by Turner, a critic and writer on Wordsworth:

"After five long years, the poet once more looks upon the sylvan Wye. Nor, during that absence, among far other scenes, has the memory of a spot so beautiful and quiet ever left him. Nay, more, it may be that to the unconscious influence of those beautiful forms he owes the highest of his poetic moods—that mood in which the soul transcends the world of sense, and views the world of Being and the mysterious harmony of the Universe. He believes this is so; at least he knows how often the memory of this quiet beauty has cheered the dreariness of life and soothed its fever.

"And now he once more stands beside the real scene of his dreams, and his present sensations mingle with his past, not without a painful feeling that the past has in a measure faded and belongs to his former self, yet feeling that the joy of the present moment will recur through years to come.

"For, although he is no longer his former self, no longer feels the same

all-sufficing passion for the mere external forms and colors of nature, is no longer filled with the same gladness of mere animal life, yet nature has not forsaken, but only fulfilled her kindly purpose towards her worshipper. Taught by her, he has reached a more serene and higher region; higher because more human in its interest, more thoughtful in its nature, more moral in its object.

"And even if he had not reached this higher mood, none the less by sympathy with his sister, could he feel the full joys of his former self. That she should now be as he was then, is his wish and prayer; for doubtless she, too, will be led by nature, who never leaves her task incomplete, to the higher and more tranquil mood which is the ripe food of former flowers. And so, whatever sorrows might befall her in after times, both he and she could with joy remember that nature, by such scenes, and by his aid, had wrought in her an unfailing source of comfort."

Mr. Way's essay will appear in connection with the essays on "The National Destiny of Canada."

The Quiet Hour.

AN OLD LEGEND.

It was the time when our dear Lord Jesus
Had finished His life of love,
And the voice of His Heavenly Father
Was calling to Him from above;
And the cruel soldiers of Pilate
Were searching with eager eye
For something to scourge the Saviour,
Ere they led Him forth to die.
Now, it chanced that there grew a willow,
Not a willow like those we see,
With sorrowful, trailing branches,
But a tall, young, graceful tree,
Whose straight, green branches pointed
To the sky; and sages tell
How the soldiers took them to scourge
Him,
For they served the purpose well.
And all through that dreadful hour
When the blows fell thick and fast
On the quivering flesh of Jesus,
Till the blood flowed down at last—
The willow drooped and saddened
Under the grief and pain,
And trailed its long, green branches,
Weeping down on the moistened plain
And all through the many ages
That since have come and fled,
The sorrowing, weeping willow
Has hung its saddened head.

"BEHOLD YOUR KING!"

Light above light and Bliss above bliss,
Whom words cannot utter, lo! Who is this?
As a King with many crowns He stands,
And our names are graven on His hands;
As a Priest, with God-uplifted eyes,
He offers for us His sacrifice;
As the lamb of God for sinners slain,
That we too may live He lives again.
—Christina G. Rossetti.

"Behold your King!" said Pilate, nearly 2,000 years ago; little dreaming that those words, intended as a mockery of his thorn-crowned, blood-stained Prisoner, would stand out in letters of gold to brighten the darkness of ages to come. It might have been easy to recognize the kingliness a day or two later, when the victory over death had been won, and He who is The Life had risen triumphant from the grave. But on that first Good Friday, when Jesus stood alone, deserted by His followers, and apparently powerless to help Himself or them, the kingliness was not so self-evident.

And yet, the exclamation, "Behold your King!" was very fitting on that wonderful day of conquest over pain and death. This is a democratic age, and men do not bow down abjectly before a king just because he has gold and jewels to make him look magnificent, and an army to obey him. Now, perhaps more than in any age before us, men stand on their own merits. The men and women who win real honor and respect from

their fellows are generally those who are really noble in heart and life—not those who are rich or titled.

If Christ had only been a king or an emperor, with worldly power and grandeur to exalt Him, how soon that blaze of royalty would have died out. But, because His kingliness was inherent, a royalty of soul, His kingdom is still growing, and He still reigns, an absolute King, with complete control over the lives and secret thoughts of millions who have never seen Him.

Let us fix our eyes on our Royal Lord and try to carry about with us the marvellous picture of a Conqueror, which is drawn so vividly by the four Evangelists. The stories are four in number, but the Figure is one. If we fix our eyes on Him, surely we may drink in something of His spirit, and prove ourselves too of royal blood, children of a King.

"Love seeketh not her own," and it would be impossible to imagine a more perfect example of unselfish self-forgetfulness than is here photographed in indelible colors. The whole of that stainless life had been spent in trying to help others, without thought of reward; but how hard it must have been to face ingratitude and unkindness in return for all the loving kindness so freely poured out. The hands, that had been always ready to heal with tenderest touch, are cruelly pierced; and the heart, that had poured itself out in loving acts of service, is tortured with shame and scorn and deadly insult. But pain of body and of heart cannot crush the spirit of this kingly Man, or make Him weakly self-pitying. He is on the watch for the right moment to catch St. Peter's eye and touch his heart; He gives wise silence or quiet, telling words to priests and king and governor. Neither words nor silence are intended to save His own life, but are the earnest effort of love to help His foes to conquer deadly sin.

And so the awful hours drag on, without one trace of selfishness in the King Who is caring for the weeping women, for brutal soldiers, for the repentant thief, for mother and friend. And yet, He is not callous or insensible to pain. Well it is for us that the agonized cry, "I thirst!" rang out once from those parched lips. He does not ask us to ignore pain, but to stand up under it with heroic fortitude. We are not to turn our backs upon it, but to face it and endure it when called upon to do so. But how high the King stands above us in His marvellous self-forgetfulness. How much fuss we make over trifling aches and pains, over any slighting word or unkind act we may have met with. How we retail our troubles in our own minds or to other people, instead of forgetting them in unselfish service. How little we practice the power of silence. Hard words and unkind acts are paid back with interest, or those who have not been kind to us are treated with chilling indifference instead of warm kindness. Sometimes we may even try to "get even" with those who have offended us. We

are kind and obliging to people who treat us well—but anybody can be that—forgetting that one who is trying to be kingly must pour out kindness and love at home, in the shop, in the market, on the street, everywhere. And kingly courtesy and kindness to friends, strangers and enemies, conquers, as petty self-seeking and self-asserting never do. See how soon the hardened thief on the cross threw down his arms and saluted the King, who had nothing to prove Himself a King and the owner of a "kingdom" but His own wonderful character, which shone forth in words and looks, in patience and calm silence. See how the world bows down before this Man. Determined infidels and degraded criminals, men of the world and little children respect the invincible might of holiness. The most learned arguments may make absolutely no impression on men, but stainless purity of soul and unselfish kindness of life never fail to reach and touch all witnesses, making them want to do better. The Man Who was great enough in His own character to change the shameful Cross into a glorious Throne, has inspired the world with a new and magnificent ideal. No one now can be satisfied to be merely rich or famous, or to have a pleasant, easy time, doing nothing for other people. We all want to help our fellows, and we also want to feel that the help we give has cost us something. The more costly the sacrifice, the more joy there is in offering it. He who was noble enough to reign as a King on the Cross, has taught His brethren and inspired "to suffer and to die," as no words could have inspired men. This is a wonderful object-lesson, and one that goes home to every heart. We are all hero-worshippers by nature, and we all want to be heroic ourselves, though we may be too cowardly or lazy to pay the price.

If we want to be kingly we must face the pain God sends, and learn to thank Him for it. Some pain we must submit to; but dogged submission to the inevitable, and heroic acceptance of God's will, are very different things. The one is kingly and the other is not. Then there is other pain of body or soul which might be avoided by refusing to bear the burdens of others. Christ might have avoided the insults, the agony and the Cross, if He had devoted His life to becoming rich or successful in the world, and allowed other people to battle with their sins and endure their troubles without offering help. Those who set out to follow a crucified Leader can hardly expect to have a path of easy self-indulgence provided for them. Peace and joy He gives, and love sweetens the hardest tasks, but the daily taking up of the cross is not a vague, beautiful idea. No, it implies a daily renunciation of one's own will for God's will, a daily self-sacrifice in small things or in great, a daily laying down of life in the service of God and man.

Let us choose to follow the King, though He may lead us straight to a cross—some pain that is not at all

romantic or grand, not easy to endure without complaining, but just commonplace, petty and uninteresting. The most ordinary life—ordinary in its surroundings—may be lived serenely, grandly, enthusiastically. One that is so lived will be, in its measure, a kingly life, awakening high and noble aspirations in other souls, as the patient endurance of Christ won the homage of the thief and the admiration of the centurion who watched it. God has given to each of us a treasure—even a life to be poured out as Christ's was in glad, willing service and self-sacrifice for the good of our fellows. Shall we refuse our glorious vocation because it involves pain? Rather let us behold our King, keeping our eyes steadily fixed on Him who is the Inspiration and the Life of the world, daily drinking in more and more of His kingly spirit.

"God of Love, God of Work! Touch me with fire!"

For the dross within me, fill me with fire!

So with pure passion I cleave to my Star,

Speed my work, daily, toward the mark—far!

"God of Love, God of Work! Breathe in me—air!"

Blue and breeze-swept spaces brighten my care!

So each swirl of effort leave my hand calm,

So each heart meeting mine only feel—balm!"

HOPE.

GRACE FOR LIGHT.

When we were little children, we had a quare wee house,

Away up in the heather by the head of Brabla's burn;

The hares we'd see them scootin', an' we'd hear the crowin' grouse,

An' when we'd all be in at night, ye'd not get room to turn.

The youngest two she'd put to bed, their faces to the wall,

An' the lave of us could sit around, jest anywhere we might;

Herself 'ud take the rush-nip an' light it for us all,

An' "God be thanked!" she would say, "now we have a light."

Then we be to quiet the laughin' an' pushin' on the floor,

An' think on One who called us to come and be forgiven;

Himself 'ud put his pipe down, an' say the good word more,

"May the Lamb of God lead us all to the light o' Heaven!"

There a' when things that used to be an' now has had their day,

The nine Glens of Antrim can show ye many a sight;

But not the quare wee house where we lived up Brabla's way,

Nor a child in all the nine glens that knows the grace for light.

—Moirra O'Neill, from Songs of the Glens of Antrim.

OUR ENGLISH LETTER.

SOME MORE LINKS.

Amongst the notices of new books shortly to be published, is one of short stories, entitled "Odd Lengths." The book has a prefatory note which throws light upon its title, and, in quoting it, I would venture to ask our Home Magazine readers to bear it in mind, as being fairly applicable to the odds-and-ends I am privileged to gather from time to time for our corner of "The Farmer's Advocate."

"Oh, no, madame," said the draper to the customer at the clearance sale, "there is nothing against these pieces, except they are what we term odd lengths. They are quite our best materials—you can see for yourself. Just odd lengths."

It sometimes happens that the clever purchaser at the bargain counter can find in its offered "odd lengths" material which may not be an exact match, but which yet will "go with" something she has at home, or she bears away with her in triumph the loveliest little remnant of silk or satin which will make her bonnie little daughter a pretty blouse, or baby Jean "just the very cunningest little hood possible, and all, my dear, at just half what it would have cost if bought by the yard."

Well, just now, if not exactly a bargain-hunter, I seem always coming across something which, though it may not be exactly a match, is yet a connecting link between my present surroundings and my home and friends across the sea. In proof of which, there is a little coincidence connected with each of the Devonshire pictures I am sending, and for which I hope room may be found.

I will begin with Dawlish. Three days ago, the sun shining brightly between just one or two little showers not big enough to be called rain, and not deterring enough to keep me at home, I took the train to this pretty little town, within a few miles of Teignmouth. It can be reached by rail or road, the latter winding up and down hills and between banks, ivy-clad and covered with verdure, the former darting in and out of tunnels under the cliffs, with peeps between of dancing waves, and rocks, and bits of sandy beach, in bewildering contrast. The whole journey was over in a few minutes, and, on learning that the farm to which I was bound was but a mile from the station, I gathered up my skirts, and, taking the right-hand side of the lovely gardens, with their flowers, lawns and running stream, shown in the picture, I trudged on until I reached my goal, Stonelands Farm, the door of which was opened, and a kindly welcome extended to me by a bonnie young matron, one of Canada's daughters transplanted into English soil. My visit was not a surprise, for I had promised her friends in Canada that I would look her up during my stay in Devonshire. "Yes, I was homesick at first, but now it is all right," as indeed it seemed to be, judging by her most comfortable surroundings and the prosperous air which environed her. To find an Englishwoman in Canada is, as we all know, no novelty, and we are glad to assert that the Englishwoman, when there, soon becomes a Canadian; so, seeing that the Canadian is just as adaptable, if not more so than the Englishwoman, it need not surprise us that this special young Canadian, happily married to a fine young Devonshire farmer, and the mother of a little maiden of twelve years of age, should have no regrets for the step she had taken. I know that the Ontario relations of Mrs. C. are readers of "The Farmer's Advocate," thus through its columns they will learn, before I can tell them so myself, that I have fulfilled my promise made in October last.

SHALDON.

Three ladies were unexpectedly shown into my room by my landlady a week ago, the names upon whose cards were wholly unfamiliar, although the next Canadian mail

explained the pleasant reason why. "Our sister in Ontario tells us that you are connected with the Organization of Canadian Women, which she and others have lately joined, to their great satisfaction, and, as we live just across the ferry, we thought we should like to call upon you. Two of us have only lately returned from a visit to Canada, and we shall have much in common to talk about. Will you come over to Shaldon and see us?" And this, you may be sure, it is my intention to do shortly. To begin with, the home of my new friends is one of those facing the

With the Flowers.

THE FLOWER BORDER.

In nine cases out of ten, lack of success with a flower garden is due simply to the want of a sufficient enrichment of the soil. Old, well-rotted manure, plenty of it, thoroughly worked in, will make almost any garden "blossom as the rose," while a little fresh, strawy stuff, scarcely incorporated at all, is likely to do more harm than good. In

are much more satisfactory, and, as a rule, much more artistic. A border or two along the edge of the lawn or driveway, and, above all, one running about the house, will usually be found to give room for as many flowers as the average farmer has time for. The hard, sharp line defining the boundary where the foundation of the house ends and the grass of the lawn begins has something unattractive about it. It seems to proclaim the fact that the house is something extraneous to nature, something out of sympathy with the soft green things that surround it. Place a four-foot border of flowers and shrubs, backed by vines, about it, and note the difference. It now seems to have grown up as a natural product of its locality, in perfect harmony with hill, or woodland, or smooth, green fields, that may be near.

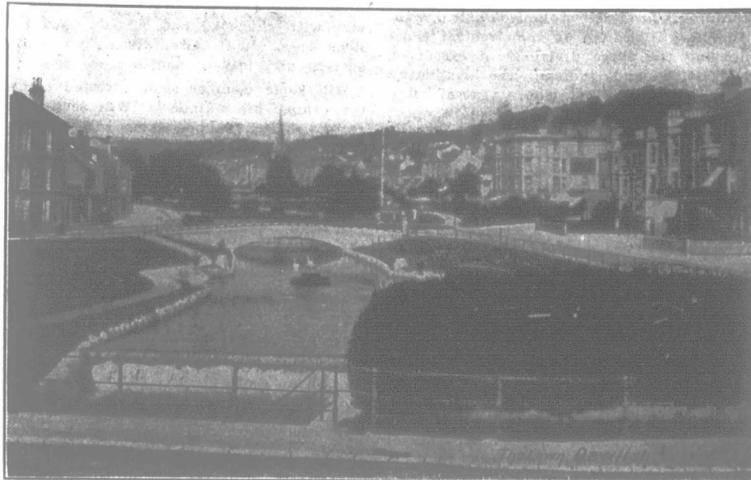
In choosing vines for house adornment, people often seem at sea; yet little mistake can be made in the colder parts of Canada if Virginia Creeper or the hardy wild grape be chosen for wall covering, and the Clematis paniculata, or simple wild Clematis of the woods, for veranda posts. In the warmer sections, Boston Ivy and Trumpet Vine may be ventured upon for the walls, and Clematis jackmanii and the beautiful climbing Rose, or equally beautiful Honeysuckle for the veranda. While waiting for any of these slower-growing vines to grow, Japanese Morning-glory, Moon Flower and Cobæa scandens may be grown. As both of the former are sensitive to cold, they should not be planted out until all danger of frost is past. Better start them in the house, first putting the seed in very warm water and leaving it to soak twenty-four hours.

Next to the vines, clumps of shrubs or tall-growing plants, such as Golden Glow, Perennial Phlox, Perennial Delphinium, Dahlia, Castor Bean, Cornflowers, etc., should be planted—never in straight rows, always irregularly—and outside of these, and in the interspaces, any low-growing plants that may be preferred. On the north side, of course, very few plants will do well, but Ferns, Columbines, and the bright little Cardinal Flower from the banks of the streams, may always be depended upon, the latter growing very well if the soil be deep and moist.

People sometimes say, "I have no time to bother with a flower-garden," yet a border such as this about the house will require very little time, and it alone will be sufficient to stamp the whole place with an air of refinement, and prove the thing of beauty which is a joy forever.

THE ART OF NOT HEARING.

The art of not hearing should be learned by all. There are so many things which it is painful to hear, very many of which, if heard, will disturb the temper, corrupt simplicity and modesty, detract from contentment and happiness. If a man falls into a violent passion and calls all manner of names, at the first words we should shut our ears and hear no more. If in a quiet voyage of life we find ourselves caught in one of those domestic whirlwinds of scolding, we should shut our ears as a sailor would furl his sail, and, making all tight, scud before the gale. If a hot, restless man begins to inflame our feelings, we should consider what mischief the fiery sparks may do in our magazine below, where our temper is kept, and instantly close the door. If all the petty things said of a man by heedless and ill-natured idlers were brought to him, he would become a mere walking pincushion stuck full of sharp remarks. If we would be happy when among good men, we should open our ears; when among bad men, shut them. It is not worth while to hear what our neighbors say about our children, what our rivals say about our business, our dress or our affairs.—[The Argus.

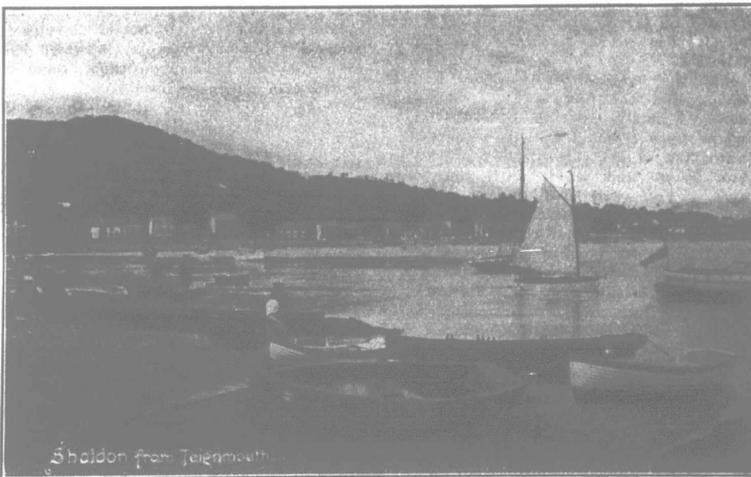


The Lawn, Dawlish.

beach, and within a few doors of the house in which I can so well remember lodging long years ago, when Shaldon was the paradise of my childhood, only to be enjoyed for an occasional summer-holiday-tide; and, secondly, to talk over Canada and Canadian interests will be delightful to one who is an exile, though only temporarily so, from the land of her adoption.

I wish that space permitted a description of this quaint, old-world little village, with its curious streets

describing the management of her famous "hardy" borders, Mrs. Ely say that she first had the soil removed the full width of each border, to a depth of two feet. Into these great trenches one foot of well-rotted manure was packed, and the space above filled in with alternate layers, four inches in thickness, of soil and manure. Upon the top three inches of soil was placed, and in this the roots were planted. Having thus prepared the bed, in succeeding years, but little preparation, save the oc-



Shaldon, from Teignmouth.

and lanes, its stone walls and little bits of gardens, its steep, corkscrew-like lanes, through which one can scramble upwards to "Fussey-Dec," and other bits of wild moorland above the Torquay Road, with its views of the sea every here and there. But if my pictures are to have room found for them, I know that I must be very economical of my words, and must keep my other links for my next letter. H. A. B.

Many people who are complaining of not getting a square deal would complain a good deal more if they got it.

The simple life of the farm makes strong character.—C. J. Bell.

casional working in of a top-dressing of manure, was found necessary.

While so deep a bed may not be necessary for annuals, it is, nevertheless, quite imperative that the soil be moist and rich. A few plants, such as the Nasturtium, may, it is true, blossom more profusely in poorer soil, yet it seems a pity to sacrifice an almost tropical luxuriance of leafage for the sake of a few more blossoms. If the soil be hard and stubborn, about one-fourth sharp sand should be added. All manure, sand, etc., should be hauled onto the ground in March, while the ground is still firmly frozen, as in this way the cutting of the soft soil by wagon wheels will be prevented.

It is always a mistake to cut up a grass plot into flower-beds. Borders

The Ingle Nook.

Re Bread Maker.

Will someone give me directions for using a Universal Bread Maker successfully?
J. E. T.

A Cheery Greeting.

Dear Dame Durdén and Chatterers,—How are you all this cold weather? Just feeling like myself, I suppose, that you would like to draw in a little closer to that cheery fireplace in our Ingle Nook. I hope St. Valentine warmed all your hearts with a little remembrance. He did remember me, but wait until I tell you. He also sent me one in which he pictured me as a most terrible-looking blue-dressed female, with an immense long nose, which disappeared in the pages of the book I was reading, while a tiny bald-headed urchin, with its finger in its mouth, stood regarding me with awe. The verse below the picture was called The Wise Girl, making me out a would-be author, and ending by saying:

"She knows the entire Virgil,
And the spot where Homer died,
But she could not cook a beefsteak
If she tried."

Now, Chatterers, what do you think of that? To be sent, a common little woman, with a short pug nose, who knows nothing about Virgil or Homer, and who can not only cook a beefsteak, but also eat it to perfection!

How many of you made valentines this year for invalids? I did, and would have sent our "Advocate" invalid one had I known her address. They are easily made from the old gray and brown stiff cardboard calendars, in the form of square and heart-shaped booklets, on whose backs and leaves are pasted cupids, laughing maids, babes and flowers, cut from old papers. Print some verses composed to suit pictures and fasten with baby ribbon. I sent one to my bachelor brother, and could scarce get him to believe I made it, it was so cute.

And now, to those of us who are mothers I would say, teach your children to love God from their childhood, not have them say, as I heard a lady say the other day: "My, it is so nice when children are near enough to attend Sunday school; all the little bit I know about God or my Bible, I learned in those few years they had Sunday school in the old schoolhouse down here." Don't forget, mothers, aye, and fathers, that we are responsible to God for our children, when the "last trump shall sound." As I have already stayed too long, I will close, by wishing all a happy and peaceful Easter, and that all may understand the message of the lilies, which is "Love to God and your fellow-men."
JAUNITA.

That Honolulu Trip.

Dear Dame Durden,—Many thanks for recipes for buckwheat cakes. Am sorry to have seemed so long writing to you, but a terrible time with the dentist must be my excuse.

"Marguerite" might like to know that to thoroughly wash the hands in hot rain water, and then pour into the palm of one hand a little olive oil and granulated sugar, and rub until the sugar is dissolved, then wash again in clean water (hot, soft), is fine for cleaning the hands.

In answer to your request for a description of Honolulu, am afraid I can't do justice to the subject. Was it not Mark Twain who once said of the islands: "No alien land in all the world has any deep, strong charm for me but that one, no other land could so longingly and beseechingly haunt me," and so on?

Well, on approaching Honolulu from New Zealand, and it is a delightful voyage, you see an expansive island, with ranges of volcanic mountains and deep valleys, then the busy city and shipping along shore. Diamond Head, a bare, sharply-modelled ridge of an old volcano crater, and a characteristic landmark, bounds the view to the east. Immediately back of the city is another extinct volcano, a bare mound, blown up on the side of the mountain, and known as Punch Bowl. It is a surprise to find

quite a bustling American city; great buildings of steel and stone, fine modern shops, electric cars going out to the suburbs and up the mountains, where the view is superb. Lines of carriages are waiting for hire, if wanted, to take you to any of the charming spots. It is so difficult to decide, at first, where to go, there are so many things of interest, and it is so unreal—the brilliance of tropical coloring, the profusion of vegetation, the ever-present visions of mountains and sea—until you begin to think yourself in dreamland.

Let me think of attractions specially: The Bishop Museum has a fine collection, illustrating the life of the Polynesians. The city can also boast of the Executive Building, formerly Jolani Palace; the Judiciary Building, in monarchical times housing the three divisions of executive, legislative and judicial; the Kapuwaiwa Building; police station; central firehouse; waterworks pumping plant; post office; Oahu prison; public market, and the Kamehameha schools, comprising Y. M. C. A., library, Oahu College, Queen's Hospital, Lanalilo Home (for aged Hawaiians), the Royal Mausoleum, etc., etc.

Nununu Pali, an elevation of about 1,200 feet, and about six miles from town, lies between peaks of 3,000 feet, and it was over this precipice Kamehameha I. drove the out-generalled defenders of Oahu's independence in almost the last fight he needed to make for his great work of unifying the group. It was a dangerous pass, but is now an easy road, down which a coach and four can be driven to the plains on the other side of the island. At one point the road is carried over a deep void upon steel girders.

There are other excursions galore, after those in the immediate neighborhood have been exhausted, but it will take too much space and time, if, indeed, I have not taken it already, so I will just mention the great extinct crater of Haleakale, on the Island of Maui, and the active volcano of Kilawea, on Island of Hawaii. On returning from one of these trips, it is such a pleasure to lounge around and enjoy the garden of palms at the Hawaiian Hotel, and listen to the band which plays evenings, and which sounded the very best I have heard anywhere—the surroundings may have had something to do with it, of course. The chief industry is the cultivation of the sugarcane. The plantations are very large, but the Hawaiians can't be depended on for any large amount of labor, so it has been necessary to import laborers.

All the tropical fruits grow in profusion—and the flowers! ! ! —but surely I must stop. If I wrote for a whole week I would still leave something unwritten of this lovely place. I advise you to go and see it with your own eyes. You will find perfect weather whenever you go; the climate is splendid, and I can recommend the A. & A. line of steamers for comfort and speed.

I was interested in enquiries about the Canadian Northwest. We quite recently returned from a three months' trip through this much-talked-of place, and shall follow answers to those letters with great interest.
"NEW CHUM."

If "New Chum" refers to the letter written by Edna, Kent Co., we are sorry to disappoint her. All communications received in answer were forwarded as private correspondence to Edna.

Another Corn Method.

Dear Dame Durden,—To prepare hulled corn, put 3 quarts of wood ashes and 6 quarts of cold water in a large kettle. Let boil five minutes, skimming several times. Take from the fire and add a little cold water to settle it; strain. Put 3 quarts of yellow field corn in a kettle, and pour over it the strained lye. Let boil $\frac{1}{2}$ an hour, or until the hull will slip off when rubbed with the fingers. Skim out the corn and wash in several waters, rubbing with the hands until the hulls are all off. Boil in clear water until soft.

"The Farmer's Advocate" has been a helpful visitor to our home for a number of years.
MRS. JAMES DENYES
Lebanon, Ind., Oct.

A Farmer's Sister also sends a recipe for hulled corn, which is not published, as so many have already appeared.

A Question About Duck Eggs.

Dear Dame Durden,—Still another new one! To how many homes does "The Farmer's Advocate" enter! I am a farmer's wife, like so many more of the writers to your paper, and can say there are not many callings any better, and certainly not so healthy. I have lived on the farm quite a bit; altogether, in fact, since I have been married. I expect we will be changing some of these days, and the thought of it is not pleasant, for I love out of doors, and my poultry and animals.

I saw in some member's letter of her having good luck with duck eggs in the incubator. I wish she would write again and give her way. We have good success with chickens, but haven't tried the duck eggs. Will close, wishing you every success and lots of patience.

Will some member send a tested recipe for orange marmalade? Will send some recipes, which I hope some will try.

Jim-Jams.—1 egg broken in cup, fill with sugar; 3 tablespoons shortening, 3 tablespoons water, pinch salt, 1 teaspoon baking powder. Mix stiff with flour and roll thin. Cut with ring and put jam between.

Prince Albert Cake.—1 cup brown sugar, 1 heaping cup flour, 1 cup chopped raisins, 2 eggs, 1 teaspoon cinnamon, 1 teaspoon cloves, $\frac{1}{2}$ cup butter or dripping, $\frac{1}{2}$ cup sour milk, $\frac{1}{2}$ teaspoon soda. Bake in two layers and ice.

Someone try and report success.
Oxford Co., Ont. POLLY.

Recipes for marmalade appeared in last week's "About the House." Bitter oranges, or part bitter oranges, may be used if preferred.

Address Given—Recipes.

Dear Dame Durden,—I have been a reader of "The Farmer's Advocate" for four years, and fully appreciate the privilege of reading the helpful suggestions of the ladies in the Ingle Nook. By being a subscriber to your valuable paper, I have learned many things helpful in house-keeping. Someone asked in last issue for address of McCall's Magazine: "The McCall's Co., Publishers, 236 to 246, 37th St., New York City."

Will someone please send a recipe for Neapolitan ice cream, also butter tarts?

Here is a recipe of a good cake: Brown Cake.—Two eggs (save white of one for icing), 1 cup of sugar, $\frac{1}{2}$ cup of molasses, 1 teaspoon of mixed pastry spice, 1 teaspoon vanilla, $\frac{1}{2}$ cup of butter, 2 cups of flour, $\frac{1}{2}$ cup of sour cream, in which has been stirred 1 teaspoon soda. Bake in layers in a moderate oven.

Icing.—Whip white of egg to a stiff froth. Boil 1 cup of granulated sugar with water enough to cover sugar, until it hairs, then pour on egg. Stir while pouring. Then add $\frac{1}{2}$ teaspoon vanilla, and spread on cake.
HELENA,
Ontario Co., Ont.

Neapolitan Ice Cream.—One quart cream, 2 cups sugar, 6 eggs (yolks), 1 vanilla bean. Split the bean, remove the seeds, and place with the cream in a double boiler. Cook, remove from the fire and strain. Beat the egg yolks until light; add the sugar and scalding-hot cream. Stir well, and return to the boiler to cook until the cream begins to thicken. Take from the fire, cool, and freeze. Add chopped nuts, candied cherries, etc., to make a pleasant variation.

Can anyone send a recipe for butter tarts?

Maple Mousse.

I have received two contributions re maple mousse, and, oh, Harriett, you and I spelled it "moose"! What a give-away!

1. Beat the yolks of three eggs well. Add 1 cup maple syrup, and beat again. Then beat together 1 quart sweet cream, and the whites of the eggs. Last of all, mix all together, and freeze.

2. Maple Mousse.—A mousse or parfait is a heavy cream, beaten till stiff, sweetened, flavored, packed in a tight mold, set in equal parts of salt and ice; leave for three hours without stirring. Gelatine and thin cream will do, if heavy cream is not obtainable. Maple mousse requires 4 eggs, slightly beaten. Pour over these one cup boiling maple syrup, and cook until thick like custard. Cool, and add whipped cream; beat all well together, put in the mold, and freeze.

Oatmeal Wafers and Other Things.

Dear Dame Durden,—I think it was Margaret who asked for the recipe for oatmeal wafers before Christmas. Here it is: Two cupfuls of oatmeal, one cup of brown sugar, one-half cupful of lard, one teaspoon soda, a pinch of salt. Dissolve the soda in half a cupful of boiling water, and pour over the oatmeal, lard and sugar. When cool, stiffen with flour, roll thin, and bake. For Margaret's hands, the simplest thing I find is to have a dish with a little honey standing in a handy place, and when you have washed your hands, before you dry them, dip a finger in the honey, and rub all over your hands, then dry as usual. I believe you will be surprised at how nice and smooth your hands will get and keep.

Do you know, that if you put a little starch in the rinsing water you put your dish-towels through, they will do better work, and do it longer? What has become of Jack's wife? Is she still considering the name for her nice home? I thought of "Bonny Brae" or "Bonny Hill," but I suppose she didn't know that, and she'll have it all done and named. We have much sympathy for Lankshire Lass, and that other lady with the sore leg. I hope they are getting some better. We have taken "The Farmer's Advocate" for a long time, and think a great deal of it, and always pass it on to friends in the Old Land. I would like to thank both you and your correspondents for the many nice recipes and suggestions we have had; all that we have tried were good.
Elgin Co. NELLIE BLYE.

NOTE.—Will all of the Chatterers please add the county in which they live to their signature. It is a general rule of "The Farmer's Advocate" to publish that instead of the post office, and I have my old postal guide almost worn out (more or less) in hunting up counties.
D. D.

Some Recipes from Mattie.

Dear Dame Durden,—I have been a silent reader of the Ingle Nook for some time, but did not venture to write, so I thought I would come in and have a little chat with the Chatterers. I am sending some recipes I hope will help someone.

Jem-Jems.—1 cup of butter, $\frac{1}{2}$ cup of brown sugar, 1 egg, 3 tablespoons of boiling water, 3 teaspoons of soda dissolved in the water, flour enough to roll thin; stick together with jelly while warm.

Gingersnaps.—1 cup of brown sugar, 1 cup of lard, 1 cup of blackstrap, 2 teaspoons of ginger, 2 of baking soda, 1 cup of boiling water.

Will someone please tell me how to clean wall paper with bread crumbs?
Bruce Co., Ont. MATTIE.

To clean wall paper with bread crumbs, take a piece of a slice of bread and brush gently downward, beginning at the top and brushing toward the floor. The bread will crumble off, taking the dust with it. Some use bits of stiff dough instead of the bread. If there are grease spots, place clean blotting paper over each spot and hold a warm iron over that for a little while.

MOZART RELICS.

The small and old-fashioned Mozart house is in the middle of Salzburg. It is with a feeling of respect, a visitor to the spot says, that one climbs the three flights of stairs and enters the room where Mozart was born. All the ancient pictures, the two old pianos and many relics belonging to the composer take one back a hundred years. The only jarring note in this harmonious association of memories is that Mozart's skull is in a glass case in the center of the room, all that remains of him, since no one could ever distinguish his body in the mass of remains in the common paupers' grave wherein he was buried in Vienna—[London Globe.]

Children's Corner.

[All letters for Children's Corner must be addressed "Cousin Dorothy," 52 Victor Ave., Toronto. Otherwise they will not be published.]

Cousin Dorothy is sorry that all the letters which come to her cannot be printed. The space is not large enough for them all, and so only the most interesting letters and stories sent in can appear.

A NIGHT WITH DEATH.

(By Fred Dawson, Ballie, Ont.)

One day in the middle of November a party of six men went out to hunt an old deer which had roamed through the woods at Cobalt for a long time, and could not be caught. The head man of the party proposed that each man should take a different course through the woods, and all should meet at 5 o'clock at a certain place. If they did not shoot the deer; but if anyone shot the deer, he was to shoot six times in succession. One man walked through the woods, and finding a track he supposed to be the deer's, he followed it, and it led to the lake; so he waited at the lake for the deer to come to drink. Finding it did not come, he started out for the meeting place, but going over a rock, his foot caught in a crevice in it. Instantly he fell over, breaking his leg. After a long time at his boot, he was able to free himself from the rock. He bound his handkerchief around his leg; then he crawled on hands and knees to the lake. By this time it was dark, so he gathered some brush up in a heap, and set it alight. After a while he lay down to sleep, but it wasn't long after that he was aroused by a rustling sound about ten rods away. He jumped up, but what to see but two big balls, almost like fire, coming towards him. He grabbed up his gun and fired at the object, killing it. Being too tired to see what it was, he lay down, and was sound asleep in a few minutes. Next morning he fired nine times, one after another, as fast as he could. The miners, thinking something was wrong, started out to where the firing came from. After a long search, they found him nearly unconscious, and nearby were the horns of the deer. The wolves had eaten everything but its bones. The horns measured five feet across. It seems strange that the wolves did not eat the man, but the wind was blowing the other way, and perhaps carried away the scent.

LITTLE NELLIE'S LAST PRAYER.

Into a London hospital,
One cold and frosty morn,
A pretty little sufferer
By loving hands was borne.

Though sad and lonely Lotty felt,
With strangers all around,
Welcomes hearty and outspoken
On every side she found.

In the next bed to hers lay
Another little maid,
And in the silence of the night
These whispered words she said:

"Although you've only come to-day
I feel I love you well,
But I have a dreadful secret fear,
Which you must let me tell;

"This morning when the doctors came,
They thought I was asleep;
But I had only shut my eyes,
The sunshine makes them weep.

"And then our kind house doctor said,
With pity in his voice,
'It must be done to save her life;
There is no other choice.'

"The other said: 'Poor thing,
Will ever she pull through?'
And so I am in such a fright
I don't know what to do."

Then Lottie said: "Let's pray to God,
Because He's sure to hear;
Our earthly friends are far away,
But God is always near.

"He'll give you strength to bear the pain,
Angels will help you through,
God says we shall have if we ask,
And all God says is true."

"I'd like the angels very much,"
Said Nellie, "but, you see,
In this ward all of us are ill,
They might pass over me.

"And all of us are dressed alike,
And all of us are girls,
And when our hair is tossed about
They can't see which has curls.

"But stop! I know what I can do
That there be no mistake;
If God an holy angel sends
To guard me for Christ's sake;

"I'll stretch my arms and clasp my hands
And raise them over my head,
And hope that if I fall asleep
They'll stay above my head."

So Nellie said her little prayer,
Believing God would hear,
And may He grant her simple faith
To Christians far and near.

"O, God! Thou knowest what they mean
To do to me to-morrow,
I cannot help it. Grant me strength
To bear my pain and sorrow.

"If Thou did'st send Thine angel down
To Abram and his son,
Please, may I have an angel too?
But let Thy will be done.

Sir F. Borden and others. The King himself has only four now. Just another point, if a big family's parents should die, what would the children do? They would have to go to some home if the parents did not leave them anything. There is a man I know that has a big family, and is very poor, and if he should die, where would those children go? They could not earn their own living; they would have to go to some home. Therefore, I say that small families are better than large.

FRED HUNGERFORD (age 15).

Rockside P. O.

The debate on the advantages of education to farmers will be held over for a few weeks so that some of you may answer Fred's objection to large families. C. D.

More About China.

Dear Cousin Dorothy,—This is my first letter to the Children's Corner. My father has taken "The Farmer's Advocate" for a number of years.

The Government of Great Britain is far superior to the Government of China, and China cannot prosper so greatly in the future. Second point.—That the people of Great Britain are better educated than those of China. Third point.—That Great Britain is a wealthier country than China. China has no great lakes and rivers for navigation. The only water that borders China is the Pacific Ocean, and a country that has lots of power must have navigation.



A Basketful.

Well, I think I have spoken long enough on this subject.

ELMER A. McSHAIL (age 12).
Wallacetown, Ont.

THE LETTER BOX.

Dear Cousin Dorothy,—We never wrote to "The Farmer's Advocate" before, but every week when it comes we always turn to the Children's Corner first. We live on a farm, and prefer it to the city. We go to school, and have quite a few studies. We will send a few riddles:

What's on a doorstep that won't come off? Ans.—The sun.

What goes all day, and never moves an inch? Ans.—A clock.

A colored walter carried a platter of turkey; he let it fall. What harm did it do to what four nations? Ans.—Downfall of Turkey, break-up of China, overflowing of Greece, and confusion of Africa.

Suppose you should break your knee, where should you go to get another? Ans.—To Africa, for that is where the negroes.

We will now conclude, wishing "The Farmer's Advocate" every success. WILLARD J. DINNING, BERT G. DINNING, CLINTON W. BENNETT (chums).

Dear Cousin Dorothy,—I like to read "The Farmer's Advocate" better than

any other paper we have in the house. I live in Wallaceburg; a nice little town, situated in the north-western part of Kent—not on a farm, still we take "The Farmer's Advocate." I work in the Sydenham Glass Works, which runs ten months in the year. Here is a story for you:

One day a friend of mine got hard up for money; but he had a cow. He wanted to sell me half; so I did buy half from him. When it came night, I took a pail, and started out to get half the milk. He said, as we met, "Where are you going?" I said, "I came for half the milk." "Oh," he said, "you bought the front half; you don't get any milk." But I had to carry water three times a day, and furnish all the feed. One day, my half hooked him and threw him over the fence. Then he had me arrested. But I got even with him. I killed my half, and his half died.

CHAS. C. HODGES.

Wallaceburg, Ont.

THE WOMEN'S INSTITUTE.

Having but recently returned from an Institute campaign, one naturally reviews the work accomplished and forecasts the future. Generally speaking, the organization is flourishing, and marked results have been obtained. When we think of over ten thousand women working for the betterment of the home (that greatest of all institutions), we must admit that old Ontario will eventually feel the pulse of the movement. Moreover, our pioneer experiences will doubtless awaken the sister Provinces to a realization of what they may accomplish along similar lines. Our American neighbors, too, are watching our onward march with interest.

On its inception the Women's Institute grew slowly. People looked upon it with disfavor, and many were the conjectures as to its value. Even yet we hear the expression of ideas such as the following:

"If women would stay at home from the Institute Club, and mind their own work, they would get along better. I never go! My own home is quite good enough for me."

Or: "Domestic science, indeed! Give me the good old days when we cooked to suit ourselves."

I often wonder why the average mind confounds cooking with domestic science, and views the Institute movement from the standpoint of the things we eat. Surely we are all-round individuals, and require food for thought as well as action. Home life has various demands; housekeeping various aspects and methods; while it is equally true that no woman has a monopoly of all the good things. By meeting together the ladies exchange ideas, and assist each other along lines relative to, not away from, the home. If the Institute movement ever degenerates so far as to take women away from their homes and make them less worthy of womanhood, it ought to be discountenanced. On the other hand, however, we find it improving both homes and communities, breaking down jealousy, uniting town and country in a common cause, engendering a friendliness heretofore unknown, and spreading useful information. As women we are awaking to the fact that our reasoning faculties were given us for use, and that we are quite capable of using them to advantage; also, that what we considered our retiring nature was nothing more than a self-consciousness, which is neither commendable nor to be desired in any individual.

Generally speaking, the Institute is making rapid strides, but there are some localities where it has not proven successful. Lack of punctuality, desultory meetings (due to absence of preparation), the critical spirit, cliques, and many other things, have contributed to this end. Many ladies have the idea that they cannot give a talk on a definite subject; others are afraid of their own voices; while a third class push ahead, do the best they can, and form the backbone of the Institute.

"MARGARET MANSFIELD."
Waterloo Co., Ont.

Bob, Son of Battle.

By ALFRED OLLIVANT.

(Serial rights secured by "The Farmer's Advocate and Home Magazine.")

CHAPTER XXVIII.—(Continued).

At the door of the hall the Master met David.

"Noo, lad, yo're comin' along wi' Andrew and me," he said; "Maggie'll niver forgie us if we dinna bring yo' home wi' us."

"Thank you kindly, Mr. Moore," the boy replied. "I've to see squire first; and then yo' may be sure I'll be after you."

The Master faltered a moment. "David, ha'n' yo' spoke to yer father yet?" he asked in low voice. "Yo' should, lad."

The boy made a gesture of dissent. "I canna," he said petulantly. "I would, lad," the other advised. "An' yo' don't yo' may be sorry after." As he turned away he heard the boy's steps, dull and sodden, as he crossed the hall; and then a thin, would-be cordial voice in the emptiness:

"I declar' if 'tisna David! The return o' the Prodegal—he! he! So ye've seen yer auld dad at last, and the last; the proper place, say ye, for yer father—he! he! Eh, lad, but I'm blithe to see ye. D'ye mind when we was last thegither? Ye was kneelin' on ma chest: 'Your time's come, dad,' says you, and wangs me o'er the face—he! he! I mind it as if 'twas yesterday. Weel, weel, we'll say nae mair about it. Boys will be boys. Sons will be sons. Accidents will happen. And if at first ye don't succeed, why, try, try again—he! he!"

Dusk was merging into darkness when the Master and Andrew reached the Dalesman's Daughter. It had been long dark when they emerged from the cosy parlor of the inn and plunged out into the night.

As they crossed the Silver Lea and trudged over that familiar ground, where a fortnight since had been fought out the battle of the Cup, the wind fluttered past them in spasmodic gasps.

"There's trouble in the wind," said the Master.

"Ay," answered his laconic son. All day there had been no breath of air, and the sky dangerously blue. But now a world of black was surging up from the horizon, smothering the star-lit night; and small dark clouds, like puffs of smoke, detaching themselves from the main body, were driving tempestuously forward—the vanguard of the storm.

In the distance was a low tumbling like heavy tumbrils on the floor of heaven. All about, the wind sounded hollow like a mighty scythe on corn. The air was oppressed with a leaden blackness—no glimmer of light on any hand; and as they began the ascent of the Pass they reached out blind hands to feel along the rock-face.

A sea-fret, cool and wetting, fell. A few big rain-drops splashed heavily down. The wind rose with a leap and roared past them up the rocky track. And the water-gates of heaven were flung wide.

Wet and weary, they battled on; thinking sometimes of the cosy parlor behind; sometimes of the home in front; wondering whether Maggie, in flat contradiction of her father's orders, would be up to welcome them; or whether only Owd Bob would come out to meet them.

The wind volleyed past them like salvos of artillery. The rain stormed at them from above; spat at them from the rock-face; and leapt up at them from their feet.

Once they halted for a moment, finding a miserable shelter in a crevice of the rock.

"It's a Black Killer's night," panted the Master. "I reck'n he's oot."

"Ay," the boy gasped, "reck'n he is."

Up and up they climbed through the blackness, blind and buffeted. The eternal thunder of the rain was all about them; the clamor of the gale above; and far beneath, the roar of angry waters.

Once, in a lull in the storm, the Master turned and looked back into the blackness along the path they had come.

"Did ye hear onythin'?" he roared above the muffled southing of the wind.

"Nay!" Andrew shouted back.

"I thowt I heard a step!" the Master cried, peering down. But nothing could he see.

Then the wind leaped to life again like a giant from his sleep, drowning all sound with its hurricane voice; and they turned and bent to their task again.

Nearing the summit, the Master turned once more.

"There it was again!" he called; but his words were swept away on the storm; and they buckled to the struggle afresh.

Ever and anon the moon gleamed down through the riot of tossing sky. Then they could see the wet wall above them, with the water tumbling down its sheer face; and far below, in the roaring gutter of the Pass, a brown-stained torrent. Hardly, however, had they time to glance around when a mass of cloud would hurry jealousy up, and all again was blackness and noise.

At length, nigh spent, they topped the last and steepest pitch of the Pass, and emerged into the Devil's Bowl. There, overcome with their exertions, they flung themselves on to the soaking ground to draw breath.

Behind them, the wind rushed with a sullen roar up the funnel of the Pass. It screamed above them as though ten million devils were a-horse; and blurted out on to the wild Marches beyond.

As they lay there, still panting, the moon gleamed down in momentary graciousness. In front, through the lashing rain, they could discern the hillocks that squat, hag-like, round the Devil's Bowl; and lying in its bosom, its white waters, usually so still, ploughed now into a thousand furrows, the Lone Tarn.

The Master raised his head and craned forward at the ghostly scene. Of a sudden he reared himself on to his arms, and stayed motionless a while. Then he dropped as though dead, forcing down Andrew with an iron hand.

"Lad, did't see?" he whispered. "Nay; what was't?" the boy replied, roused by his father's tone.

"There!"

But as the Master pointed forward, a blur of cloud intervened and all was dark. Quickly it passed; and again the lantern of the night shone down. And Andrew, looking with all his eyes, saw indeed.

There, in front, by the fretting waters of the Tarn, packed in a solid phalanx, with every head turned in the same direction, was a flock of sheep. They were motionless, all-intent, staring with horror-bulging eyes. A column of steam rose from their bodies into the rain-pierced air. Panting and palpitating, yet they stood with their backs to the water, as though determined to sell their lives dearly. Beyond them, not fifty yards away, crouched a hump-backed boulder, casting a long, misshapen shadow in the moonlight. And beneath it were two black objects, one still struggling feebly.

"The Killer!" gasped the boy, and, all ablaze with excitement, began forging forward.

"Steady, lad, steady!" urged his father, dropping a restraining hand on the boy's shoulder.

Above them a huddle of clouds flung in furious rout across the night, and the moon was veiled.

"Follow, lad!" ordered the Master, and began to crawl silently forward. As stealthily Andrew pursued. And over the sodden ground they crept, one behind the other, like two night-hawks on some foul errand.

On they crawled, lying prone during the blinks of moon, stealing forward in the dark; till, at length, the swish of the rain on the waters of the Tarn, and the sobbing of the flock in front, warned them they were near.

They skirted the trembling pack, passing so close as to brush against the flanking sheep; and yet unnoticed, for the sheep were soul-absorbed in the tragedy in front. Only, when the moon was in, Andrew could hear them huddling and stamping in the darkness. And again, as it shone out, fearfully they edged closer to watch the bloody play.

Along the Tarn edge the two crept. And still the gracious moon hid their approach, and the drunken wind drowned with its revelry the sound of their coming.

So they stole on on hands and knees, with hearts aghast and fluttering breath; until, of a sudden, in a lull of wind, they

could hear, right before them, the smack and slobber of bloody lips, chewing their bloody meal.

"Say thy prayers, Red Wull. Thy last minute's come!" muttered the Master, rising to his knees. Then, in Andrew's ear: "When I rush, lad, follow!" For he thought, when the moon rose, to jump in on the great dog, and, surprising him as he lay gorged and unsuspecting, to deal him one terrible swashing blow, and end forever the lawless doings of the Tailless Tyke.

The moon flung off its veil of cloud. White and cold, it stared down into the Devil's Bowl; on murderer and murdered.

Within a hand's cast of the avengers of blood humped the black boulder. On the border of its shadow lay a dead sheep; and standing beside the body, his coat all ruffled by the hand of the storm—Owd Bob—Owd Bob o' Kenmuir.

Then the light went in, and darkness covered the land.

CHAPTER XXIX.

The Devil's Bowl.

It was Owd Bob. There could be no mistaking. In the wide world there was but one Owd Bob o' Kenmuir. The silver moon gleamed down on the dark head and rough gray coat, and lit the white escutcheon on his chest.

And in the darkness James Moore was lying with his face pressed downward that he might not see.

Once he raised himself on his arms; his eyes were shut and face uplifted, like a blind man praying. He passed a weary hand across his brow; his head dropped again; and he moaned and moaned like a man in everlasting pain.

Then the darkness lifted a moment, and he stole a furtive glance, like a murderer's at the gallows-tree, at the scene in front.

It was no dream; clear and vel in the moonlight the humpbacked boulder; the dead sheep; and that gray figure, beautiful, motionless, damned for all eternity.

The Master turned his face and looked at Andrew, a dumb, pitiful ecstasy in his eyes; but in the boy's white, horror-stricken countenance was no comfort. Then his head lolled down again, and the strong man was whimpering.

"He! he! he! 'Scuse ma laffin', Mr. Moore—he! he! he!"

A little man, all wet and shrunk, sat hunching on a mound above them, rocking his shrivelled form to and fro in the agony of his merriment.

"Ye raskil—he! he! Ye rogue—he! he!" and he shook his fist waggishly at the unconscious gray dog. "I owe ye anither grudge for this—ye've anticipated me"—and he leant back and shook this way and that in convulsive mirth.

The man below him rose heavily to his feet, and tumbled toward the mocker, his great figure swaying from side to side as though in blind delirium, moaning still as he went. And there was that on his face which no man can mistake. Boy that he was, Andrew knew it.

"Feyther! feyther! do'ee not!" he pleaded, running after his father and laying impotent hands on him.

But the strong man shook him off like a fly, and rolled on, swaying and groaning, with that awful expression plain to see in the moonlight.

In front the little man squatted in the rain, bowed double still; and took no thought to flee.

"Come on, James Moore! Come on!" he laughed, malignant joy in his voice; and something gleamed bright in his right hand, and was hid again. "I've bin waitin' this a weary while now. Come on!"

Then had there been done something worse than sheep-murder in the dreadful loneliness of the Devil's Bowl upon that night; but, of a sudden, there sounded the splash of a man's foot, falling heavily behind; a hand like a falling tree smote the Master on the shoulder; and a voice roared above the noise of the storm:

"Mr. Moore! Look, man! look!"

The Master tried to shake off that deafening grasp; but it pinned him where he was, immovable.

"Look, I tell ye!" cried that great voice again.

A hand pushed past him and pointed, and sullenly he turned, ignoring the figure at his side and looked.

The wind had dropped suddenly as it had risen; the little man on the mound had ceased to chuckle; Andrew's sob-

were hushed; and in the background the huddled, flock edged closer. The world hung balanced on the pinpoint of the moment. Every eye was in the one direction.

With dull, uncomprehending gaze, James Moore stared as bidden. There was the gray dog naked in the moonlight, heedless still of any witnesses; there the murdered sheep, lying within and without that distorted shade; and there the humpbacked boulder.

He stared into the shadow, and still stared. Then he started as though struck. The shadow of the boulder had moved!

Motionless, with head shot forward and bulging eyes, he gazed.

Ay, ay, ay; he was sure of it—a huge, dim outline as of a lion couchant, in the very thickest of the blackness.

At that he was seized with such a palsy of trembling that he must have fallen but for the strong arm about his waist.

Clearer every moment grew that crouching figure; till at length they plainly could discern the line of arching loins, the crest, thick as a stallion's, the massive, wagging head. No mistake this time. There he lay in the deepest black, gigantic, revelling in his horrid debauch—the Black Killer!

And they watched him at his feast. Now he burrowed into the spongy flesh; now turned to lap the dark pool which glittered in the moonlight at his side like claret in a silver cup. Now lifting his head, he snapped irritably at the rain-drops, and the moon caught his wicked, rolling eye, and the red shreds of flesh dripping from his jaw. And again, raising his great muzzle as if about to howl, he let the delicious nectar trickle down his throat and ravish his palate.

So he went on, all unsuspecting, wisely nodding in slow-mouthed gluttony. And in the stillness, between the claps of wind, they could hear the smacking of his lips.

While all the time the gray dog stood before him, motionless, as though carved in stone.

At last, as the murderer rolled his great head from side to side, he saw that still figure. At the sight he leaped back, dismayed. Then with a deep-mouthed roar that shook the waters of the Tarn he was up and across his victim with fangs bared, his coat standing erect in wet, rigid furrows from topknot to tail.

So the two stood face to face, with perhaps a yard of rain-pierced air between them.

The wind hushed its sighing to listen. The moon stared down, white and dumb. Away at the back the sheep edged closer. While save for the everlasting thunder of the rain, there was utter stillness.

An age, it seemed, they waited so. Then a voice, clear yet low and far away, like a bugle in a distant city, broke the silence.

"Eh, Wullie!" it said. There was no anger in the tones, only an incomparable reproach; the sound of the cracking of a man's heart.

At the call the great dog leapt round, snarling in hideous passion. He saw the small, familiar figure, clear-cut against the tumbling sky; and for the only time in his life Red Wull was afraid.

His blood-foe was forgotten; the dead sheep was forgotten; everything was sunk in the agony of that moment. He cowered upon the ground, and a cry like that of a lost soul was wrung from him; it rose on the still night air and floated, wailing, away; and the white waters of the Tarn thrilled in cold pity; out of the lonely hollow; over the desolate Marches, into the night.

On the mound above stood his master. The little man's white hair was bared to the night wind; the rain trickled down his face; and his hands were folded behind his back. He stood there, looking down into the dell below him, as a man may stand at the tomb of his lately buried wife. And there was such an expression on his face as I cannot describe.

"Wullie, Wullie, to me!" he cried at length; and his voice sounded weak and far, like a distant memory.

At that, the huge brute came crawling toward him on his belly, whimpering as he came, very pitiful in his distress. He knew his fate as every sheep-dog knows it. That troubled him not. His pain, insufferable, was that this, his friend and father, who had trusted him, should have found him in his sin.

(To be continued.)

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About the House. Current Events.

Some Egg Recipes.

To Boil Eggs.—Do not put in boiling water and boil three minutes—a process which renders the white hard and indigestible. Instead, slip the eggs into boiling water, cover the vessel and let stand in a warm place (not on the stove) for ten minutes. Cooked thus the eggs will be nutritious, and cooked evenly in every part.

Poached Eggs.—Have the water salted and just simmering. Add a tablespoon of vinegar to it to keep the eggs from spreading. Break the eggs one at a time onto a saucer, and slip gently into the water. Dip water over each egg with a spoon until coated with a semi-transparent covering, through which the yolk can be faintly seen; take out with a perforated ladle, trim off the ragged edges, and serve on buttered toast.

Poached Eggs in Cream.—Heat half a pint of sweet cream or rich milk, rub one teaspoon butter and one small tablespoon flour together and stir in, then season with salt and pepper. When it is at boiling point slip the eggs in and dip some cream over each. Butter some small slices of toast and lay on a platter; put the mixture over and serve hot. The half pint of cream will be sufficient for six eggs.

Omelet.—Take five eggs; beat whites to a stiff froth. Beat the yolks, adding a tablespoonful of the beaten whites. Now add the beaten whites to the beaten yolks and season with one-half teaspoon salt and a little pepper; mix very lightly. Put a tablespoon of butter on a frying pan, and when very hot turn in the eggs. Keep on top of stove one minute, then set on the top grate of the oven for five minutes. Take out, fold over and serve. This will be enough for five people.

Another Omelet.—Six eggs, whites and yolks beaten separately. Mix one cup of milk, in which six teaspoons cornstarch and one teaspoon baking powder have been blended, in with the yolks, and season with one-half teaspoon salt. Fold the whites in lightly, and turn into a hot frying pan, in which one tablespoon butter has been placed. Let cook till set at the bottom, then lift up carefully, in different places and let the soft part run down. Do not turn the omelet, but when nicely cooked turn over and serve on a warm platter. This will be enough for seven people.

Potato and Egg Omelet.—Press two mealy potatoes through a sieve or ricer; mix with the beaten yolks of five eggs; season with salt and pepper, and a few drops of lemon juice; fold in the beaten whites and cook as in preceding recipe. If liked, sprinkle a little chopped parsley over just before folding.

Onion Souffle.—Melt a tablespoonful of butter, and brown one shredded medium-sized onion. Into this stir two cups of chopped cold boiled potatoes, prepared with salt, pepper, and two beaten eggs. Bake in a buttered dish 20 minutes.

Muffins.

Whole-wheat Muffins.—Blend one-half cake compressed yeast in half a pint of milk, and add sufficient quantity of rich milk to make a pint. Stir into it three cups whole-wheat flour, and set in a warm place to rise. When light stir in two well-beaten eggs and a little salt, and turn into buttered gem pans or pattypans, half filling them. Let them rise until very light, and bake in a quick oven.

Muffins.—Add two well-beaten eggs to a pint of milk, and beat into one quart flour, in which has been mixed and sifted one-half cup sugar, three teaspoons baking powder and a pinch salt. Last of all, beat in one tablespoon melted butter. Beat well, and bake in a hot oven in gem pans or muffin rings.

Corn-meal Muffins.—Sift together one cup flour, one level teaspoon salt (small), and one and a half teaspoons baking powder. Mix in one cup corn meal and two tablespoons sugar. Beat one egg, and add to it one cup milk. Pour upon dry ingredients and beat quickly to a smooth batter. Last of all, beat in one tablespoon melted butter. Have gem pans buttered, and very hot. Fill two-thirds full, and bake in a hot oven fifteen or twenty minutes.

Canadian.

The town of St. Catharines, Ont., is to have a new isolation hospital.

The greater part of Mr. T. Eaton's estate, which amounts to \$2,699,642, has been bequeathed to Mr. J. C. Eaton.

Mr. Elliott Stevenson, of Detroit, has been appointed Supreme Chief Ranger of the Independent Order of Foresters, succeeding the late Dr. Oronhyatekha, of Toronto.

General Booth, of the Salvation Army, who is making a tour of America, has been enthusiastically received at Toronto and other points of his Canadian trip.

Prof. Geo. H. Locke, M.A., a Canadian, of late in the Dept. of Pedagogy in Chicago University, has been appointed dean of the faculty of education in Macdonald College, at Ste. Anne de Bellevue, Que.

The activity of the mining camp at Cobalt this spring is said to be prodigious. The regular miners are working night and day, as they have been all winter, and the woods in all directions are full of men erecting new camps, sinking new shafts, etc. Cobalt enjoys the distinction of being the most orderly mining camp the world has known.

Much interest is attached to the bill providing for old-age pensions, which has been submitted to the Senate by Sir Richard Cartwright. The measure has no "charity-pittance" signification. It is intended simply to offer the Dominion's financial standing as a surety to those who have had no chance to provide well for the future. Such intending beneficiaries are required to pay into a general fund, such payments, under stated conditions, entitling them, when the age of sixty years has been passed, to a yearly annuity which shall not exceed \$400 a year.

British and Foreign.

By the accidental blowing up of the French battleship, Iona, at Toulon, France, 150 marines were killed, and several hundreds injured.

A statue of William of Orange in bronze, the duplicate of one which is to be erected on the terrace of the royal palace at Berlin, is to be presented to King Edward by the Kaiser.

The war in Central America increases in severity. On March 8th a Nicaraguan column, after three hours' fighting, was completely annihilated by the Hondurans.

A life without hard work would be flat and stale. "The salt of life is work," it has been said, and the salt that each one's life most needs is the particular work that God has laid upon that one. It is well to remember this when one's own work seems to be a misfit—and probably no one ever lived who was not at one time or another tempted to feel that about himself. This is a part of the very saltiness of work; it puts a tang and life and temper into character to keep at a thing when only dogged self-forcing can hold one to it. Let us be glad that the salt of our life is chosen for us; if we made our own choices, we should too often take sugar instead of salt, and the system could not long stand that.—[Sel.]

Had a Nasty Bronchial Cough

As An After Effect of Pneumonia—Nothing Proved Effective Until Dr. Chase's Syrup of Linseed and Turpentine was Used.

Many a mother can say, as does Mrs. Harker in the following letter, that Dr. Chase's Syrup of Linseed and Turpentine has proven a friend to her in time of colds with the little ones.

Mrs. Walter Harker, Sydenham, Frontenac County, Ont., writes: "Dr. Chase's Syrup of Linseed and Turpentine has proven a friend to me in times of colds with my little ones. I have tried many others, but have found none just as good. My little boy, about a year old, had pneumonia, and was left with a nasty bronchial cough, but Dr. Chase's Syrup of Linseed and Turpentine is helping him wonderfully, and I am sure it will cure him."

"We have also used Dr. Chase's Kidney-Liver Pills, with splendid results, and have great faith in all of Dr. Chase's medicines."

Because of its exceptional success in the cure of croup, bronchitis, whooping cough, asthma and severe coughs and colds, Dr. Chase's Syrup of Linseed and Turpentine is the "standby" for such ailments in the great majority of homes; 25 cents a bottle, at all dealers, or Edmanson, Bates & Co., Toronto.

LEARN TO STUFF BIRDS and Animals, Mount Game, Heads, Tan Skins, Make Rugs, etc.



We can teach you in your OWN HOME during YOUR SPARE TIME. You easily can learn the art of Taxidermy, and be able to mount all the fine birds and animals you secure. A taxidermist makes big money all the time, and there is more work than he can do. Besides, taxidermy is a wonderfully fascinating amusement for yourself. It enables you to mount your own trophies of the gun and rod, and decorate your office, Gen'l or home. The Northwestern School of Taxidermy is endorsed by the leading sporting magazines; awarded 13 gold medals for its great exhibit at the Portland, Ore., exhibition. The fact that Prof. J. W. Elwood, former superintendent of schools in Iowa, is now manager of this school, with the greatest taxidermy artists in the country as instructors, absolutely guarantees your success as a student. In fact, the school charges no tuition fee unless you can master taxidermy by mail. Thousands of successful graduates. Every sportsman and naturalist should know this art; easily learned by men, women and boys.

FREE—Sample copy of the beautiful taxidermy magazine, catalogue, circulars, letters from graduates, and pictures of birds, fishes and animals mounted by the most famous taxidermy artists. ALL FREE. Write to-day NORTH-WESTERN SCHOOL OF TAXIDERM Y 48 T Street, Omaha.

You cannot possibly have a better Cocoa than

EPPS'S

A delicious drink and a sustaining food. Fragrant, nutritious and economical. This excellent Cocoa maintains the system in robust health, and enables it to resist winter's extreme cold.

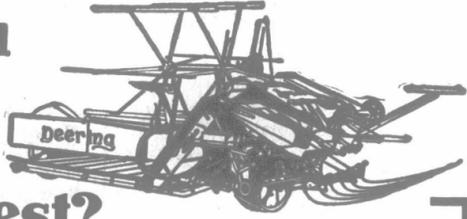
COCOA

Sold by Grocers and Storekeepers in 1/2-lb. and 1-lb. Tins.

\$12 WOMAN'S SUITS, \$6

Suits to \$15. Cloaks, raincoats, skirts and waists at manufacturers' prices. Send for samples and fashions. Southcott Suit Co., Dept. 27 London, Can. Send for our catalogue, which lists everything you use.

Have You Grain



To Harvest?

THEN you will be interested in harvesting machines—the certain, sure, dependable kind.

You will be interested in securing a binder which will do the work evenly, quickly and with the least possible strain upon man, team, and machine.

In short, you will want a Deering binder.

Being constructed so largely of steel, it combines greatest strength and durability with lightness.

Considering its adaptability to all kinds of land and to every grain crop, it is withal an exceedingly simple machine, being easy to handle and keep in order.

Perhaps the strongest feature of the Deering is its capacity to cleanly gather the grain.

The many and delicate adjustments of the reel make it possible to gather up tangled down grain almost equally as well as standing grain.

Deering binders are made to cut 5, 6, 7 or 8 feet wide.

The wide-cut machine is specially

adapted to the use of the large grain grower.

Its capacity is remarkable.

Capacity in a binder, by the way, is a most valuable quality in the busy, all too short, harvest days.

We have only space to touch upon a few of the Deering good points here.

Every intending purchaser of a binder should secure the Deering book and study the machine.

The Deering line of harvesting machines is complete and includes, besides grain and corn harvesting machines, binder twine, mowers, tedders, sweep rakes, side delivery rakes, hay loaders, stackers. Also a complete line of tillage implements and seeding machines, comprising disk drills, shoe drills, hoe drills, cultivators and seeders, smoothing, spring-tooth and disk harrows, land rollers and scufflers. Also gasoline engines, cream separators, hay presses, wagon, sleighs, and manure spreaders.

Call on the local Deering agent and discuss with him the qualities and advantages of Deering harvesting machines.

Any of the following branch houses will supply you with the Deering catalog.

CANADIAN BRANCHES: Calgary, London, Montreal, Toronto, Ottawa, Regina, St. John, Winnipeg.
INTERNATIONAL HARVESTER COMPANY OF AMERICA,
(INCORPORATED)
CHICAGO, U. S. A.

The Cook's Delight

is a flour which is equally good for both bread and pastry. "Five Roses" is the one flour on the market which gives the same high-class results for all kinds of plain and fancy baking. It is the flour which should be found in every kitchen cupboard, and every cook and housewife who desires sweet, tasty bread, and light and flaky pastry, should order it from her grocer.

Ask yours for a bag to-day.

LAKE OF THE WOODS MILLING CO.,
LIMITED.



Can You Use These?

The commercial expansion of Canada is creating every day a greater demand for skilled office workers. By our method you can get a thorough training at home in Bookkeeping, Shorthand, Penmanship, Typewriting, Commercial Arithmetic, Commercial Law, Business Correspondence, etc.

Full information on request. Clip out and send this advt.

Home Correspondence School
of Canada, Limited
Temple Building, Toronto, Can.

In consolidation with the Canadian
Correspondence College, Limited.

FARM FOR SALE

and barns; large orchard. Price, \$10,500.

115 acres of choice land, 3 miles from City of Brantford. This is one of the best farms in the county. Buildings and fences are all newly new. First class two-story brick house, 10 rooms; cattle barn, 40 x 64, with cement floors and mangers with water basin to each stall; horse barn, 60 x 26, modern plan; pigery 28 x 50; implement shed, 54 x 28; never-failing well with new windmill that drives water to both house and barns. For further particulars apply to
T. A. COX, Box 71, Brantford, Ont.

Health in the Home

HOUSEHOLD SANITATION.

By Mary E. Allen Davidson, M. D.

SURROUNDINGS OF THE HOME.

Chapter I.

Before beginning the talk on home surroundings, I must ask my readers to remember that if what is said is to be helpful, it must be frank. Insanitary conditions must be exposed, and to do so, subjects that are usually ignored must be discussed plainly. I shall try to speak as clearly, as earnestly, and as faithfully, as if I were your own trusted family doctor, pointing out danger to the health of the household, and hoping that at least enough heed will be given to insure a careful consideration of your own home conditions to find out if anything could be bettered. Also let it be understood that I am quite assured that farmers' children are by far the healthiest, so that when insanitary conditions of farm homes are pointed out, do not say, "All fudge! farm children are healthy," and dismiss the subject from your minds. They have certainly the best chance to be healthy, with God's gifts of fresh air and sunshine lavished so prodigally. But these are sometimes nullified to some extent, and the little ones on the farm could be saved from many illnesses that these gifts of nature help to render less lastingly hurtful. But why not always work with nature, instead of against her? Does it not behoove parents to think about these things, and see if some anxiety to themselves and suffering to the children could not be prevented, and all rendered more comfortable by a little more attention to surroundings? Let it not be forgotten, either, that the farm contributes quite a large percentage of the victims of consumption and typhoid.

The ground on which the house stands should be well-drained. The cellar should never be damp, nor water allowed to lie in it. This will be dealt with fully when the inside life of the home is considered. No stagnant water should be allowed to lie near the dwelling, such as ponds, sloughs, etc. Hurtful gases are continually rising from decaying animal and vegetable matter. These not only are hurtful in themselves, but the healthful oxygen in the air in the region of the water is used up in their making, so that the air is vitiated in several ways. It loses its tonic properties, is not so buoyant and exhilarating, and is loaded with gases that are poisonous to the system when inhaled. An open drain from house or outbuilding is especially dangerous, because of the large amount of decaying matter it is likely to carry. Such drains should always be closed in, at least until a point is reached where the air surrounding the home will not be contaminated.

How about the disposal of garbage? Household should cover the barrels or tanks for slops. When these are emptied, quicklime or other effective disinfectant should be scattered round the barrels over the ground sprinkled by the spilled slops, and a generous amount should be thrown into the barrel and on the cover. This would improve present conditions, and make these barrels less of a camping and feeding-ground for flies, if, indeed, they are not a breeding-place for them.

When the life-history of the housefly is as thoroughly investigated as that of the mosquito has been, its connection with many diseases as a causative agent will be demonstrated, not in the same way by direct insertion of the disease germ into the body; but I believe it is even more

active in the spread of disease, because the mosquito has only one way of infecting its victim, and only a portion of the mosquitoes find a chance to sting. But every fly that lights on the table or crawls over the children is a menace.

No garbage should be thrown out that can be burnt. The farm animals will dispose of potato peelings and other vegetable refuse, also table refuse; but where not so used, these should all be burnt. The furnace or kitchen stove should be amongst our most patronized house-cleaners.

Do not throw slops and garbage near your kitchen door. At least do not have it so that in the spring you will have a semi-solid conglomerate round your door, through which you have to wade every time you go in and out, and of which you must carry in a load on your boots, to be deposited on your floor, dried into dust and inhaled. This will be a slough of despond to your children, of which the worst consequences may not be wet feet or soiled clothes. So, if you have no sink and drainage pipe, carry all slops and refuse well to the unfrequented side of the yard. In the spring, sprinkle with lime and dig the ground up.

While shade trees are very desirable, both for shade and ornament, they should not be so close to the house or so thickly planted as to exclude most of the sunshine or to interfere with the free circulation of air. This shuts out the purifying influences of sun and wind to a large extent, and has a tendency to cause dampness.

The house should never be supplied from the barn well. It is always dangerous. Even when the greatest care is taken, the water runs great chances of being contaminated by animal excrement.

Outbuildings on the farm should be far enough away from the house to prevent barnyard excrement from being tramped into the house, to be dried and inhaled, loaded onto the clothing and hands, and so rubbed in the children's eyes, or swallowed with their food.

So fence in a good yard. Have a nice front lawn, with a border of flowers and a gravelled walk to your front door. At the rear or side have a large yard. Use plenty of gravel round the door for some distance. If you have gravel walks leading to pump and water-closet, all the better. Your vegetable garden may also be in the same enclosure with the house. An acre fenced in and planted round with trees, and so divided—into front lawn, flower garden, backyard and vegetable garden—will give ideal home surroundings, will afford a clean, shady playground for the children, and a place where the grown-ups can rest brain and body, or find a pleasant change of work in garden or flower culture. It will pay to make the home surroundings beautiful and attractive, as well as healthful. Every farmer can have such a home with very little cash outlay. Just a little time and thought and personal work, and the result will be gratification to himself, an inspiration to others, and a lasting benefit and pleasure to all the family.

A load or two of clean sand for the children to play in, with a shady plot of grass, will be a great help towards keeping them healthfully employed. If the sand can be dumped in a great heap, of clean, shifting possibilities, under a big tree in a specially clean corner, where the air is pure, the questions of clothes and amusement and exercise are solved for the greater part of the day, as far as the younger children are concerned, anyway.

RECIPES.

Potato Griddle Cakes.—One cup Five Roses flour, 1 teaspoon baking powder, $\frac{1}{2}$ teaspoon salt, 2 large potatoes (grated). Make into batter, with $\frac{1}{2}$ cup milk, and fry.

Anise Cakes.—Four eggs, $\frac{1}{2}$ lb. sugar, $\frac{1}{2}$ lb. Five Roses flour, 1 teaspoon baking powder, 1 tablespoon anise seed. Roll, cut into cakes, and bake.

PURITY FLOUR



MOST TASTY BREAD—the kind you can eat even without butter—is made from PURITY FLOUR. Milled entirely from the finest Western Canada Hard Wheat it is chock full of sweet, wholesome nutriment. Besides—it never disappoints you—making the best bread with the least trouble.

Sold Everywhere in the Great Dominion WESTERN CANADA FLOUR MILLS CO. LIMITED MILLS AT WINNIPEG, GODERICH, BRANDON

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

BUY rich farming and grazing lands in the Edmonton District, the most fertile district of Alberta. Pendleton Co., Lamont, Alta.

FORTY leading varieties of strawberry and cane berry plants. Seven varieties of seed potatoes. Catalogue free. Jno. Downham, Strathroy, Ont.

FAIRVIEW Farm for sale—9 1/2 acres, 60 cleared, balance timber. Soil clay loam. Well watered. Seven-roomed new brick house. Bank barn 40 x 60. Well fenced, Victoria two miles. Terms easy. Apply to George Hewitt or M. T. McCall Victoria post office.

FOR SALE in Saskatchewan—A1 section of first-class land; 300 acres ready for crop; 80 acres fenced for pasture; house, barn and well; \$16 per acre for quick sale; \$3,800 down, balance time. Box 31, Vonda, Sask.

IMPORTANT to stockmen—Humanized dehorner applied to your calves will effectually dehorn them. The operation causes no pain, and is uniformly successful. Fully guaranteed. Price \$1 per box, prepaid. Write for literature. G. H. Tully, box 86, Bracebridge, Ont.

MANITOBA farm, highly improved, three quarter sections. Will exchange for a 150 or 200 acre farm, with buildings, in Sturgeon Falls, Barrie or Sault Ste. Marie districts. Give full particulars of improvements when replying. Menzies, Rollins & Metcalfe, 447 Main St., Winnipeg.

SABLE Collie Pups—Three extra good bitches. One dog. Cheap for immediate sale. John E. Pearce, Wallacetown, Ont.

SNAP—Fifty acres valuable peach land; buildings; Grimsby township; near lake and electric cars; also two lots, ten and twenty acres; farm of one hundred acres, fruit and stock. Box 38, Winona, Ont.

STRAWBERRY Plants—Best varieties; first-class plants; prices lower than most growers; send for list. H. D. Cleminson, W. Ilington, Ont.

SCOTCHMAN wants job to travel entire horse for season. Life experience. Apply: Scotchman, Farmer's Advocate, London.

WANTED—Working foreman for six hundred-acre farm. Must be competent and experienced handler of men, machinery and horses. Apply to the Rathbun Farm, Deseronto, A. Leitch, Supr.

WANTED—Farm hand. Single. Experience desired. Strictly temperate and reliable. Middle aged. For eight months. Lock Box 203, Glenora, Ont.

WANTED—Farms in all parts of Ontario. The Big Cities Realty & Agency Co., Limited, 6 College St., Toronto, Ont.

WHEAT lands in the great golden West, where free homesteads are still available. Clean open prairie in tested localities; good water and near railways; splendid investment. You may double your money in one year. Call on me when you reach Regina, or write me. Geo. S. Houston, Box 9, Regina.

480 ACRES, excellent soil, with stream, 5 miles south-west of Leacombe, Alberta, and near Senator Talbot's model stock farm. An opportunity at twelve dollars per acre, with terms. Write owner, J. Everard Rinions, Calgary, Alta.

Special—Several first-class farms; ready for crop; close to elevator. Fourteen dollars per acre. Also several choice unimproved three-hundred-and-twenty-acre farms near Moose Jaw. Ten dollars. These exceptional bargains. A. & F. MAYBERY, Moose Jaw, Sask.

GOSSIP

LONDON HACKNEY SHOW.

At the London (England) Hackney Show, March 5th to 8th, the number of entries totalled 667, of which 314 were stallions. The champion cup went to the fifteen-year-old Rosador, who was first in class, five years or upwards, and over 15 hands 2 in., the reserve being the 3-year-old Copmanthorpe Performer, who was the junior champion, and first for three-year-olds, over 15 hands 1 in. For best stallion, any age, over 15 hands 2 in., Diplomatist was the winner. The champion stallion in harness was Administrator, who was first in the class over 14 hands, and not exceeding 14.2. The champion cup for best mare, any age, went to Mr. Hickling's Haawsker Rosina, who was first in class, four years and upwards, and over 15 hands 2 inches.

ATHELSTANE SHORTHORNS.

With pleasure and confidence, we introduce to "The Farmer's Advocate" readers Mr. Wm. Waidie, a young man occupying no mean position among leading Ontario breeders of Shorthorn cattle and Yorkshire hogs. His farm, "Athelstane," lies in Perth Co., Ont., about 3 1/2 miles south-west of Stratford, and about 2 1/2 miles east of St. Paul Station, on the Sarnia main line of the G. T. R. His herd numbers about 25 head of Scotch Shorthorns, representing the Rosewood, Rosalind, and Countess families, the latter founded on the cow, Louisa (imp.). The foundation cow of the Rosewood strain is Imp. Trout Creek Rosewood, Vol. 22, bred by Mr. Duthie, sired by Beaufort Victor, dam Collynie Rosewood 3rd (imp.), by Nonpareil Courtier. She is a grand representative of the Scotch type. The Rosalind foundation cow is Rosalind 2nd, Vol. 12, by Albert Victor (imp.), dam Rosalind (imp.), by Stockwell. The Countess foundation cow was Countess 2nd, by Viscount =8079=, dam Countess, by Red Duke of Lynden. From these cows traces the most of the herd, sired by such well-bred bulls as Imp. Royal Member; Mina Boy 4th, a son of the Watt-bred bull, Aristocrat, he by that prince of sires, Imp. Royal Sailor; Vicar =89355=, a Village-bred bull, sired by Imp. Knuckle Duster, and out of Village Pride, by the champion Abbotsford; and the present stock bull, Star Prince, got in quarantine, sired by the Cruickshank's Lavender bull, Lavender Star (imp.), a son of the Marr-Missie bull, Golden Star, dam Sunny Princess (imp.), a Bruce Maxwell, by Prince of Archers, half-brother to the Royal champion, Marengo. Star Prince is one of the very low-down, thick, evenly-fleshed kind, and is an exceptionally mellow handler. In young bulls for sale are: One red yearling, by Star Prince, and out of a daughter of Imp. Royal Member. This young bull is the right sort, low, thick, even and mellow. Another is a red yearling, by the same sire, out of Ruby, a Countess-bred cow. This is a show bull, and whoever gets him will get a jewel sure. Then there are several younger ones coming or in heifers are about a dozen one- and two-year-olds, the get of the stock bull and Vicar, a rare nice lot. One of the particularly good ones is a red two-year-old. Another is Clara Languish, a two-year-old roan, both got by Vicar. A very sweet one is a red yearling, by the stock bull, the making of a show heifer, if properly fitted. There are a lot of rare good heifers in this bunch, now in nice condition, and can be bought well worth the money asked.

TRADE TOPIC.

EQUIPMENT FOR HAYING.—From the Deere & Mansur Co., of Moline, Ill., we have received copies of their elaborate illustrated catalogue of general farm implements, including corn planters, listers, disc harrows, drills and seeders, best tools, cultivators, hoes, shredders, corn shellers, horse-powers, and hay machines, including rakes and loaders; also a special pamphlet descriptive of the new Deere hay loader, for either swath or windrow. Both these pamphlets will be of interest to Canadian farmers this season, and we advise our readers to write the firm for copies of them. Our corn-growing area will be greatly increased this season, and help being scarce, additional haying machinery will also be required. People should never put off till the last minute securing their supplies of necessary implement.

AUCTION SALE

Shorthorns and Clydesdales

THURSDAY, MARCH 28th.

The property of VALENTINE FIGHT, Oriel, Oxford Co., Ont., six miles from Woodstock, G.T.R. and C.P.R.

55 head of Scotch and Scotch-topped Shorthorns.

Including Wimple, Mina, Duchess and Polyanthus strains. The stock bull, LAVENDER'S PRIDE, bred by Senator Drummond, is included in the sale. His sire, Cicely's Pride (imp.), and dam, Lavender 2nd (imp.), first-prize winners at the Canadian National Exhibition. 12 young bulls and 6 heifer calves, 6 to 13 months old, by the above sire. Two imported Mares, Nubia and Lady Alice, 1st foal by Gay Everard. Chantier, a horse colt rising 3 years, by Brunstane (imp.), dam Maggie (imp.), and Roseleaf, a right good yearling filly, by Yarbent (imp.), dam Maud (1888), is the Clydesdale offering. Teams will meet the trains at Woodstock on morning of the sale. Catalogues on application.

Terms: Ten months' credit on approved notes; 6 per cent. off for cash.

CAPT. T. E. ROBSON, Auctioneer.

VALENTINE FIGHT, Oriel, Ontario.



Smith's Ovary Tonic MAKES HENS LAY

Every hen on the farm shows a tidy profit when you keep them well and strong with Smith's Ovary Tonic.

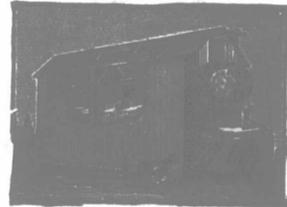
It not only makes them lay—but it keeps them laying all the year round.

It is just what is needed in the moulting season.

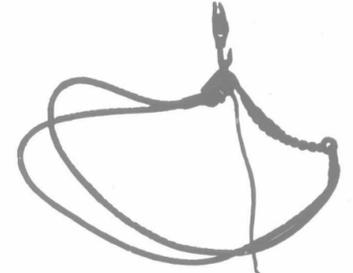
Used by leading poultrymen of England. 25c. and 50c. a bottle. At all dealers. NATIONAL DRUG & CHEMICAL CO., LIMITED, MONTREAL.

BUCHANAN'S (Malleable Improved) PITCHING MACHINE

For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without changing car. No climbing necessary. Malleable iron cars. Steel forks. Knot Passing Pulleys. Will work on stacks as well as in barns. Satisfaction guaranteed.



The Common-Sense Sheaf-Lifter

Works in connection with Pitching Machine, and is the most complete apparatus ever offered to the public for pitching sheaves. Sheaves left in the mow just as they come from the load.

RESPONSIBLE AGENTS WANTED

Circulars, Prices and Terms on application to M. T. BUCHANAN & CO., Ingersoll, Can.

TESTED SEED CORN

The White Cap Yellow Dent is the most popular variety of corn in Ontario for the silo, and equal to the best for husking. After 15 years of continuous and careful selection I offer for sale a thoroughly acclimatized typical strain, two weeks earlier than imported seed, and, having early harvested and carefully stored the crop last autumn, it has shown in all the tests I have made 100% of vit life. For price, send to EDGAR M. ZAV Z, Goldstream, Middlesex Co., Ontario.

Write for our circulars on

PORTABLE WELL-DRILLING MACHINES AND DRILLERS' SUPPLIES.



London Well-Drilling Machine Co. LONDON, ONT.

Messrs. Hodgkinson & Tisdale, Beaverton, Ont., have recently sold to Mr. T. A. Campbell, of Smith's Falls, Ont., the two imported Clydesdale fillies, Queen's Maid and Silver Queen, the former first, and the latter second in the yearling and two-year-old classes at the Ontario Horse Show, Toronto, Feb., 1907. Also, to Mr. Walter Lawson, of Coldwater, Ont., the five-year-old stallion, Royal Prince [3802], winner of third prize in a class of 13 at same show, and for which long prices were received from both parties.

QUESTIONS AND ANSWERS. FIXING SCALES TO WEIGH STOCK.

Please give a plan for arranging scales for weighing stock in basement barns, the scales to stand on barn floor above and platform below; scales weigh 2,000 lbs.

H. C. Ans.—Make a stout wooden frame to rest on platform of scales. From the four corners of frame, let iron rods or wire cables descend to platform on basement floor, large enough for one animal. Arrangements for keeping cattle in place and, also, to hinder lower platform from swinging about too much, can be made to suit. We know of one man who has such a device in a narrow passage, with platform but a few inches higher than floor. T.

THE MUTUAL LIFE OF CANADA

Head Office: WATERLOO, ONT.

A [Progressive Company with a Clean Record---Another Year of Great Success---Policy-holders Proud of the Company's Splendid Achievements.

37TH ANNUAL STATEMENT.

INCOME.	
Premiums, less reinsurance	\$1,604,581 74
Interest and Rents	464,646 98
Profit from Sale of Real Estate	3,194 41
	\$2,072,432 13

ASSETS.	
Mortgages	\$5,013,647 45
Debentures and Bonds	3,124,025 49
Loans on Policies	1,129,517 25
Premium Obligations	25,786 38
Real Estate	900 26
Real Estate, Company's Head Office	30,875 79
Cash in Banks	267,552 05
Cash at Head Office	3,540 53
Due and Deferred Premiums (net)	286,981 81
Interest and Rents due and accrued	197,712 83
	\$10,385,539 84

DISBURSEMENTS.	
Death Claims	\$ 327,975 50
Matured Endowments	168,486 00
Purchased Policies	88,607 47
Surplus	83,947 55
Annuities	10,645 68
Expenses, Taxes, etc.	338,717 40
Balance	1,054,043 53
	\$2,072,432 13

LIABILITIES.	
Reserve, 4 per cent., 3½ per cent. and 3 per cent.	\$9,053,332 18
Reserve on lapsed policies liable to revive or surrender	3,001 96
Death Claims unadjusted	43,683 00
Matured Endowments unadjusted	3,000 00
Present Value of Death Claims payable in instalments	45,338 06
Premiums paid in advance	13,781 50
Amount due for medical fees	6,482 00
Accrued rents	805 00
Credit ledger balances	10,367 50
Sundry current accounts	2,370 06
Surplus on Company's Valuation Standard	1,203,378 58
	\$10,385,539 84

SURPLUS ON GOVERNMENT STANDARD OF VALUATION, \$1,552,364.26.

GAINS IN 1906.

In Income	\$ 115,904 22
In Assets	1,089,447 69

In surplus (Company's Standard)	\$ 251,377 46
In Insurance in force	2,712,453 00

Audited and found correct.

J. M. SCULLY, F. C. A.,
Auditor.

GEO. WEGENAST,
Manager.

REPORT OF THE DIRECTORS.

The Thirty-seventh Annual Report for the year, which ended on December 31st, 1906, together with the Financial Statement, is herewith submitted:—

INSURANCE ACCOUNT.—The new business for the year amounted to 3,026 Policies, for \$5,503,547. Adding 43 revived Policies for \$52,092, the total new issue and revivals for the year was \$5,555,639. All of this, except \$46,000 written in Newfoundland, was obtained within the Dominion of Canada.

The total amount of business in force was \$46,912,407.58, under 30,986 Policies, showing a net addition for the year of \$2,714,453.

INCOME.—The income for the year amounted to \$2,072,423.13, being for premiums, \$1,604,581.74; interest and rents, \$464,646.98; profit from sale of real estate, \$3,194.41.

PAYMENTS TO POLICY-HOLDERS.—The total amount paid to Policy-holders during the year was \$679,662.20, as follows:—

Death claims, \$327,975.50; matured endowments, \$168,486; purchased policies, \$88,607.47; surplus, \$83,947.55, and annuities, \$10,645.68. While the death claims were somewhat in excess of the previous year, the ratio to the amount expected was only 53 per cent., an extremely favorable experience.

THE EXPENSES AND TAXES were \$338,717.40, being \$10,224.36 less than 1905, and only 16.31 per cent. of the total income.

ASSETS.—The cash assets at the close of the year amounted to \$9,900,845.20, made up as follows:

Mortgages, \$5,013,647.45; debentures and bonds, \$3,429,025.49; loans on our own policies, \$1,129,517.25; premium obligations, \$25,786.38; real estate, \$900.26; Company's head office building, \$30,875.79; cash on hand and in the banks, \$271,092.58. The due and deferred premiums, less cost of collection, \$286,981.81, and interest due and accrued, \$197,712.83, bringing the total assets up to \$10,385,539.84, being an increase of \$1,089,447.69 over 1905.

The policy of the Company in regard to investments has been maintained, and it will be observed that nearly all our assets are invested in mortgages on real estate, municipal debentures and bonds, and loans on policies. Our debentures and bonds are taken into account at net cost, though their market value is a sum largely in excess of it.

No losses were made on investments in 1906, and, so far as can be foreseen, none are anticipated.

The balance of real estate acquired by foreclosure in former years was disposed of during the year at a profit. Only one small parcel, valued at \$900, remains.

Interest payments were again very well met, the amount outstanding at the end of the year being only \$17,056.26. A large portion of this fell due during the closing days of the year, and has since been paid. Some of the arrears are due on Western loans, where borrowers were unable to market their grain. It is to be regretted that the elevator and railway facilities are not adequate to the demands of the West, so as to enable farmers to realize upon their year's crops within a reasonable time after harvest. Great hardship has ensued in many instances from this cause, and it is to be hoped that some measures of relief will be afforded, so as to avoid a recurrence of this misfortune.

In the Province of Ontario, all mortgage obligations were extraordinarily well paid, the amount in arrear being but trifling. It is noteworthy also to mention that on an investment of \$855,911 in the City of Winnipeg not one dollar of interest was in arrear.

Your Directors took full advantage of the monetary conditions during the year, and were able to invest the funds promptly and at better rates of interest than heretofore. They were fortunate in securing some choice municipal debentures extending over a long period of years, which will realize a very satisfactory return. Mortgage loans were made at rates of interest considerably in excess of those obtainable in recent years, and the result of these favorable investments is shown in the advance of the average rate earned upon the invested assets, while the benefit therefrom will continue through many years in the future.

The liabilities were ascertained on the Company's standard of valuation, viz., combined experience table mortality with 4 per cent. interest for all business up to January 1st, 1900. From that time to January 1st, 1903, on Institute of Actuaries' table of mortality with 3½ per cent. interest, and thereafter on the same table with 3 per cent. interest. The reserve so computed amounted to \$9,053,332.18, and the total liabilities were \$9,182,161.26, leaving a surplus over all liabilities of \$1,203,378.58. The increase in the surplus over 1905 was \$251,377.46, and the total earnings for the year amounted to \$335,325.01. If our liabilities were computed on the Government standard of valuation, the surplus at the close of the year would have amounted to \$1,552,364.26.

The Executive Committee has examined in detail every security included in our assets, and verified the entries relating to them on the Company's books. This committee also from month to month examined and passed all items of expenditure, including death claims and other payments to policy-holders.

The Manager, officers and staff continue to discharge their respective duties to the satisfaction of the Board, and in the best interests of the Company.

On behalf of the Board,

R. MELVIN,
President.

See next page.

The President, in moving the adoption of the Report, gave a very interesting review of the business for the past year, dealing with some features of the evidence brought out before the Royal Insurance Commission, and emphasizing the fact that this Company came through the ordeal unscathed. In support of the motion, Mr. E. P. Clement, K.C., and Mr. Justice Britton spoke eloquently of the success of the Company, and its future prospects. The various reports having been adopted, a number of able, thoughtful and enthusiastic speeches were made by prominent policy-holders, among whom Mr. L. J. Breithaupt and Dr. McMahon may be mentioned. Mr. T. R. Earl, Superintendent, and several of the Company's agents, having spoken, the meeting adjourned.

The scrutineers reported the re-election of Hon. Mr. Justice Britton, F. C. Bruce, J. Kerr Fiskin and Geo. A. Somerville.

The Directors met subsequently, and re-elected Mr. Robert Melvin, President; Mr. Alfred Hoskin, K.C., First Vice-President, and the Hon. Mr. Justice Britton, Second Vice-President of the Company for the ensuing year.

(Booklets containing the full Report of the Annual Meeting, including Financial Statements, list of securities held, and other important features of the business, are being published, and will in due course be distributed among the policy-holders and others interested in the Company.)

GEO. WEGENAST,

Manager.

W. H. RIDDELL,

Secretary.

Waterloo, March 7th, 1907.

THE GREAT DAIN Hay Loader



This is a Hay Loader not a hay lifter. Takes all the hay off the ground clean as a sun ky rake can rake it. Then it puts it up on the wagon and pushes it forward.

No man required at the back of load. Rakes out of the swath or windrow. If you want a loader which is really a labor-saver, the Dain is what you are looking for.

Send for our circular, and ask any questions about the machine you like. We will answer them cheerfully and fully. Write to-day.

THE DAIN MFG. CO.,
Preston, Ont.

The Fairchild Co., Winnipeg, Man.
Agents for Western Provinces

But speak quick

Will you accept a FREE copy of a book that tells facts you need to know about poultry for profit? Better send for your copy to-day—there are few left, and you want to read this book if you are interested in poultry at all. It is different from any poultry-book you ever read; it tells plain truths that not many people really know about. Written in plain English, and sensibly illustrated,—interesting, every page of it. Send your name and address on a postcard—the book will come postpaid, free. Send for it to-day—NOW. Address:

When Poultry Pays

Send your name and address on a postcard—the book will come postpaid, free. Send for it to-day—NOW. Address:

The Lee-Hodgins Co., Limited
5 Pembroke St., Pembroke, Ont.

WHY NOT

Be a telegraph operator and earn from \$45 to \$125 monthly P Send to-day for Free Booklet "K," which tells you how.

CANADIAN SCHOOL OF TELEGRAPHY,
Cor. Yonge and Queen St., TORONTO.
Oldest Telegraph School in Canada.

Advertise in the Advocate

GOSSIP.

On April 2nd, Mr. C. C. McAvoy, Atha, Ont., near Claremont Station, C. P. R., 25 miles east of Toronto, will offer a small but, at the same time, one of the most select lots of Scotch Shorthorns that has ever been offered at auction in Canada. The first cow purchased as a foundation was the beautiful roan cow, Augusta Queen 2nd, still in her prime after having produced four splendid calves; her first heifer calved, the property of Mr. McAvoy, though bred in Scotland, has a bull calf, making two imported cows, two heifers bred in Canada, and one young bull also here, to be sold. The first heifer, got in Canada, was sired by the grand Lavender bull, sold at the 'Thistle Ha' dispersion, and should be a splendid breeding cow. The second cow purchased for the herd was the Cruickshank Butterfly cow, Jubilee Maid 2nd. She, too, is a grand cow and a wonderful breeder. In the two years since her importation she has produced a splendid heifer and an equally splendid young bull. Her calf at foot when imported is the noted stock bull at the head of Mr. James Brown's herd, at Norval. The second highest-priced calf at the Duthie-Marr sale, in 1904, was an Augusta-bred, much the same as those offered in this sale. The bull, recently bought at over \$5,000 by Mr. Duthie, is an Augusta, bred much the same. The Butterflies have been making the highest prices at the Aberdeen sales during the autumn and late spring sales. The bull in use is an imported Duthie Secret. Mr. McAvoy, on account of suddenly losing his health, is forced to sell his stock, and quit farming, so all the Shorthorns, the small but select lot of Clydesdale mares, bred from the best sires imported by Graham Bros., for many generations, and the large herd of Berkshire pigs, must go to the highest bidder. The Berkshires have been bred with great care. For years nothing but first-prize, Royal-winning sires have been used, and the boar at head of herd now is one of them, and will be sold. See advertisement, and write for catalogue.

TRADE TOPICS.

The new catalogue, G 4, of the Gilson Mfg. Co., of Port Washington, Wis., illustrating and describing their full line of widely-known Gilson engines—gasoline, gas, alcohol—is ready for distribution. It gives a complete description, with many fine illustrations, of the famous Goe-like-sixty line of Gilson engines, air, water and oil cooled. It also describes their latest and greatest production, the 5 1/2-h.p., double-opposed, air-cooled engine. The Canadian factory of the Gilson Mfg. Co. is now being built at Guelph, Ont. Here, within a few weeks, will be built the complete line of engines produced by this progressive and up-to-date concern. All who are interested in gasoline engines should secure a copy of the new catalogue. It is an artistic production, and will be sent postpaid anywhere on request.

THE ELMIRA AGRICULTURAL WORKS CO.—We take pleasure in introducing our new readers to the Elmira Agricultural Works Co., Ltd., of Elmira, Ont., whose advertisement appears in this issue. The firm manufactures hay-making machinery, hay loader, rotary side-delivery hay rake and fork, side-delivery hay rake, and claim the distinction of being the oldest manufacturers of hay loaders and rakes in Canada. They also build portable farm saws, roller grain crushers, food boilers, and other implements. We have always found them a very satisfactory company with which to do business, and believe their patrons can say the same.



Hurry Up the Chicks

Next winter's profits will be greater if you push your chicks to maturity two months ahead of your neighbors. It can be done with proper management. Dr. Hess Poultry Pan-a-ge-a makes digestion in the fowl or chick, a perfect operation. Thus the largest possible amount of the nutrition in the food is converted into bone, muscle, feathers, eggs, etc.

DR. HESS Poultry PAN-A-GE-A

is the prescription of Dr. Hess (M. D., D. V. S.) and is a scientific tonic—a guaranteed egg producer and sure remedy for gapes, cholera, roup, etc. Endorsed by leading poultry associations in United States and Canada, and sold on a positive guarantee. Costs but a penny a day for 30 fowls.

1 1/2 lb. package, 35c.
5 lbs., 85c.
12 lbs., \$1.75.
25 lb. pail, \$3.50.

Send 2c. for Dr. Hess 48-page Poultry Book, free.
DR. HESS & CLARK
Ashland, Ohio, U. S. A.
Instant Louie Killer Kills Lice.

Ferry Seeds are not an experiment, but with proper cultivation, they assure success from the start. Users have no doubts at planting nor disappointments at harvest. Get

FERRY'S SEEDS

for biggest, surest, best crops—at all dealers. Famous for over 50 years. 1907 Seed Annual free on request.
D. M. FERRY & CO.,
Windsor, Ont.

POULTRY PAYS Our Book, "Poultry for Profit" showing 5 best paying varieties mailed for 10 cents.
Delavan Poultry Farm, F. E. R. Goetz, Manager, Box 23, Delavan, Wis.

BOOK REVIEW.

Any book reviewed in this department may be ordered through this office.

SQUABS FOR PROFIT.

Those who have ventured upon squab-raising, or are thinking of venturing upon it, will do well to procure a new volume, by W. E. Rice and W. E. Cox, entitled "Squabs (pigeons) for Profit." The book is handsomely illustrated, and contains, in detail, the experience of the authors in handling squabs, telling, in full, how the original investment of \$50 grew to \$3,000. The book contains about 150 pages, and is bound in cloth. Sent, prepaid, from "The Farmer's Advocate" office for 60 cents.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial count for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 20 cents.

AT Valley Mills Poultry Ranch—Fertile eggs from Single-comb White Leghorns, Buff Orpingtons, \$1 per setting, \$4.50 per hundred. Mottled Anconas, settings only, \$2. No better winter layers. Free circular. Edmund C. Apps, Box 294, Brantford, Ont.

BARRED Rocks for utility purposes. Eggs, \$1 per 15. W. E. Potts, P.O. Dept., London, Ont.

BARRED Rock eggs from superb matings. Write for full particulars. W. W. Dods, Alton, Ont.

BUFF ORPINGTONS—Yards 3 and 4—Headed by males whose grandams had records of from 240 to 283 eggs in one year. Eggs, \$1.25 per 15; \$5 per 100. Circulars. C. Everard Brown, Haysville, Ont.

BREEDING Pen L. Brahmas—1 cockerel, 4 one-year-old hens; \$6; quick sale. W. J. Sawdon, Britannia, Ont.

CHOICE White Wyandottes—Great layers. Eggs, \$1.50 per 15; \$5 per 100. Chas. A. Goulding, Vinemount Ont.

EGGs—Single-comb White Leghorn and Buff Wyandottes; good strains; \$1 per 15. George Lewis, Baltimore.

EGGs for hatching from McCormack's prize-winning White Leghorns at \$1 per 15 upwards. Send for mailing list. Jas. L. McCormack, Brantford, Ont.

EGGs for sale from a choice, well-selected heavy-laying strain of Barred Rocks. Eggs, \$1.50 per 15; \$5 per 100. John McKenney, Lyons, Ont.

EGGs—White Wyandottes, White Leghorns. Standard stock. Fertility guaranteed. Dollar per setting. E. W. Burt, Paris, Ont.

INCREASE your profits by buying eggs from healthy heavy-laying Barred and White Rocks, White and Silver Wyandottes, Buff and Black Orpingtons, Brown and White Leghorns, Black Javas, \$1 per fifteen. Black and Silver Spangled Hamburgs, Blue Andalusians and Rhode Island Reds, \$1.50 per fifteen. F. W. Krouse, Guelph.

INGLENOOK Poultry Farm offers eggs from selected pens of choice laying strains of White and Brown Leghorns, Black Minorcas and Buff Orpingtons, also a select pen of White Wyandottes for show birds, but not tested for laying quality. Eggs either separate or assorted, \$1 per 15; \$5 per 100. W. H. Smith, 41 Spruce St., Toronto.

LOGHABAR Stock Farm and Poultry Yards offers eggs from the following varieties: Barred Rocks (Latham's strain) Buff Orpingtons, B. J. Whites and variety Wyandotte, \$1 per 15 Imperial 15 in duck eggs, \$1 per 15. Eggs from imp. Bronze turkeys, 30 cents each. D. A. Graham, Wainstead, Ont.

MAMMOTH Bronze turkeys—Heavy birds bred from imported prize-winning toms and hens. Part of stock from the first-prize Pan-American winners. Pairs not akin. I won prizes at London last September on cockerels and pullets. Eggs in season. R. G. Ross, Guelph, Ont.

MAMMOTH Bronze Turkeys, Silver-Gray Dorkings, Barred Rocks, from prize-winning. Pairs not akin. Alfred E. Shore, White Oak, Ont.

MAMMOTH Bronze turkeys, bred from imported stock. We have an extra heavy and well-colored lot. T. Hardy Shore & Sons, Guelph, Ont.

RHODE Island Reds—Rose-comb (exclusively), bred eight years from carefully-selected heavy winter layers; large, brown eggs; \$1.50 per 15. Good hatch guaranteed. Jno. Luscombe, Merton, Ont.

R. P. Edwards, Prop. South Salt Springs Poultry Yards, British Columbia. Eggs and stock for sale. R. O. R. I. Reds. Black Minorca, Buff Rocks, Blue Andalusians, Pekin Ducks. Write for prices.

TURKEY EGGS—Mammoth Bronze turkey eggs for sale at moderate prices. George Frame, Dunnville, Ont.

WHITE Wyandotte eggs one dollar. Prize-winners in breeding pen. W.D. Monkman, Bond Head, Ont.

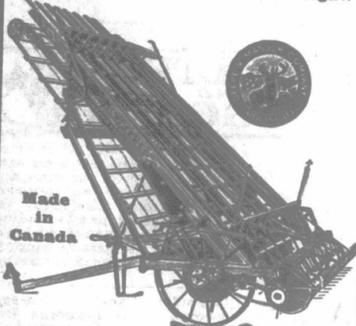
150 BUFF Orpingtons (pure-bred); pullets and yearling hens laying now Good stout cockerels. Prices reasonable. Eggs in season. Satisfaction guaranteed. Hugh A. Scott, Caletonia, Ont.

MORGAN'S CHICK FEEB
Makes chicks grow and keeps them healthy—It pays to ask for free article on "Feeding Chicks and Poultry." Use Morgan's Roup Cure, 25 cents postpaid. Use Morgan's Meat Meal. Leg Bands and Markers.

Deere

Hay Loaders

One farmer goes around complaining that farm help's scarce—the other buys a New Deere Hay Loader, the only farm help that doesn't like to sit under a tree. The New Deere does the HARD work of hay making and does it right.



Made in Canada

The New Deere is a new type of loader—the only one with floated gatherer having flexible fingers. These fingers are NOT "hook formed," consequently pick up nothing but hay. Its work is the cleanest, gets all the hay—leaves all the trash.

The New Deere is the lightest weight loader of its width and it is the highest at the delivery point.

It has unlimited capacity, and requires no change in going from swath to windrow, or vice versa.

Handles the hay softly—a valuable feature in alfalfa, clover, beans, peas, etc.

Descriptive booklet clearly explains all details, and is sent free. Get it at once, and post up on Hay Loaders.

Deere & Mansur Co.
Manufacturers
Moline · Illinois

JAMES DOW, General Agent, Stratford, Ont.

HOMES

For Settlers
IN
WESTERN ONTARIO
MANITOBA
SASKATCHEWAN
ALBERTA

How Made and How Reached

Write for free copies of **SETTLERS' GUIDE** giving full particulars of special train service for settlers travelling with live stock and effects to the North west in March and April, with passenger and freight rates. **WESTERN CANADA** Up-to-date description of the west and western conditions. 80 pages of information invaluable to settlers. Useful maps and statistics.

TIME TABLES showing double daily passenger train service to Winnipeg and Calgary.

TOURIST SLEEPING CARS

Leave Toronto daily. Comfortable, roomy berths at moderate rates. Fully equipped with bedding, cooking range and every convenience. Berths should be reserved (through nearest C.P.R. Agent) at least two weeks before departure.

Write to-day for free books and anything you want to know about the west and how to reach it. Address

C. B. FOSTER,
Dist. Pass. Agt., C.P.R., Toronto

A Great Opening for a Practical Dairyman

A fine ranch, with forty head of choice milch cows, and a cream contract for the year round. Fifty gallons of cream per day. Profit of eighty dollars per week during summer; also other good farms for sale, and good maps in city property.

E. H. Shaw & Co.,
134 9th Ave., Calgary, Alta.

When Writing Please Mention this Paper

COSSIP.

For the farm, near Clinton, Ont., advertised for sale in "The Farmer's Advocate," page 287, a buyer has not yet been found. It is a very desirable property in one of the best farming sections in Ontario, and is offered on easy terms. Parties interested should correspond with Mr. James Fair, Clinton, Ont., for price and particulars.

SHIRE STALLIONS COMING.

Messrs. John Chambers & Sons, Hordenby, England, breeders and exporters of Shire horses, write that their Mr. Llew. Chambers will sail for Canada on March 25th, with 20 very valuable Shire stallions, which will be kept at the stables of Mr. C. K. Geary, at St. Thomas, Ont., and that he will be very glad to meet old friends and new that can do with a good Shire stallion at no fancy price, but good value for the money, combining size, weight and quality, with the best of breeding.

Farmers wanting to secure first-class heavy-draft mares should keep in mind the auction sale of 20 imported Clydesdale mares and fillies, two to four years old, the property of Mr. Wm. Meharey, Russell, Ont., to be sold at the Butler House, Ottawa, on Tuesday, April 2nd. These, we are assured, are a choice lot in breeding and quality, combined with size, and they should find ready buyers in view of the increasing demand for heavy horses and the liberal prices being paid for such.

Messrs. D. C. Flatt & Son, Millgrove, Ont., write: "The past few months have been record-breakers in the history of our business of selling and shipping Large Yorkshires, and the most pleasant part to us is the letters we are receiving from customers, thanking us for the selections we have made for them. Our aim has been and shall continue to be 'a strictly No. 1 animal, and a fair deal with everybody,' and by doing this, we hope to extend our trade to still greater proportions. Thirty imported Large Yorkshire sows will farrow in March, and anyone wanting something choice should get some of these promising youngsters, sired by five of the best boars in America, every one first-prize winners at Toronto Industrial. See our advertisement in this issue."

It has been said that the hog is a machine, that oils himself, puts ten bushels of feed into less space than a bushel measure, and in so doing doubles its value, then can carry it to market on his back. Corn, barley, oats, grass, rape, clover or any of the by-products of these, loaned to a well-bred, thrifty hog, is money at big interest. In fact, it is a mint; the grains and grasses are the bullion, which, put into the hog is transmuted into coin. It is an honest mint, and gives 16 ounces of avoirdupois of edible meat. Properly bred, fed and intelligently handled, this automatic porker will pay off our debts, furnish the money to improve the farm, place a piano in the home, and a carriage at the door, as well as means to educate our boys at the agricultural college.

Attention is again called to the advertisement of an auction sale of Holstein cows, heifers and young bulls, to be held at Napanee, Ont., on Friday, March 29th, 35 head in all, the property of H. E. George, Crampton, Ont. Parties interested in dairy stock will do well to look up the advertisement and write for the catalogue. The Easter rates on all railways, covering the date of the sale, will greatly reduce the expense of attendance. Mr. George is sparing no effort to make this one of the most interesting dairy-cattle sales of the year in Canada. The grand young cow whose portrait appears elsewhere in this issue is included in the sale; her record speaks for her worth. Other cows, with nearly equal records, and bred from dams of even greater productive capacity, as indicated by their official records, are included in the sale. Most of the cows are in calf to the recently bred bull, Pontiac Hermes, son of the champion sire of the world, Henger-veldt De Kol, several of his daughters having records of 21 to 29½ lbs. butter in 7 days. Mr. B. B. Sheshier, M. P., will give an address on dairy interests at the opening of the sale.

Amatite NEEDS NO PAINT

DO YOU USE A ROOFING THAT REQUIRES PAINTING AND COATING?

If so, do you realize that the coating and painting will probably cost as much, if not more, than the first cost of the roof itself?

When you buy a roofing that has to be coated, you must consider the cost of maintenance as well as the first cost. If you do this, you will find that coated roofings cost you just about twice the original cost.

If you try to save money by not coating such roofs they will soon leak and rot away.

The best way out of the difficulty is to buy a roofing that requires no coating, such as Amatite. This Ready Roofing has a special mineral surface which makes painting entirely unnecessary. The first cost of Amatite is the whole cost.

After it is once laid on the roof it costs you nothing to keep up.

Furthermore, the price of Amatite in the first place is less than that of almost any other ready roofing. It is by far the lowest priced of the good ready roofings.

When you get prices don't forget to count in the cost of putting on paint every year, and you will be sure to come back to Amatite as the cheapest and best.

FREE SAMPLE Let us send you at once a SAMPLE of AMATITE and a Booklet of information about it. We want you to see how much better it is than the kind that has to be painted.

Address nearest office of the **BARRETT MANUFACTURING CO.**, New York, Chicago, Philadelphia, Cleveland, Cincinnati, Boston, Minneapolis, Kansas City, St. Louis, New Orleans, Allegheny. **Paterson Manufacturing Co., Ltd.**, Canadian Agents, Toronto and Montreal

Carnefac Grows in Favor

And should be used in every stable.



It is an absolutely sure preventive and cure for indigestion and scours in calves or young pigs, and saves thousands of dollars worth of stock to the farmers of Ontario every year. **CARNEFAC** is convenient to use, acts quickly, and never fails to give satisfaction. If your dealer has not Carnefac, take no substitute, but write us at once.

THE CARNEFAC STOCK FOOD CO'Y
Toronto, Ontario.

OUR MODEL INCUBATORS AND BROODERS



Are the only panacea for failure past, present and future. Just take a few minutes and read the following two of many hundreds of unsolicited testimonials from our satisfied customers:

Bayham, Ont., Jan. 31, 1907.
After using Model Incubator for one year Mrs. Mitchell writes us: "I would not be without my Incubator for the price of two if I could not get another of the Model Incubators."
Yours truly, MRS. W. MITCHELL.

Orangedale, N. S., Feb. 11, 1907.
Sirs,—No trouble to run your Model Incubator, as I was away from home for 11 hours each day and machine ran itself, temperature of cellar changing 26 degrees in 12 hours; temperature of machine did not change in the least, only the last days showed an upward tendency of half to one degree. Ran machine at 103, hatched 148 chicks from 178 eggs. There was only one chick dead in the shell in the lot. Dead germs of about 8 days in the rest. Eggs were very dark-shelled, making safe testing very difficult.
JOHN D. McNEILL.

OUR CATALOGUE MAILED FREE.
MODEL INCUBATOR COMPANY, LIMITED, 193 River St., TORONTO, ONT.

COSSIP.

IMPORTED CLYDESDALE FILLIES.
Mr. J. F. Elliott, Oxford Centre, Ont., near Woodstock, advertises in this paper for sale eight registered, imported Clydesdale fillies, three of them rising three years old, the remainder rising two, one of the former having been a prizewinner in Scotland, and all got by high-class sires. See the advertisement, and write Mr. Elliott for particulars, or call and see the stock.

At an auction sale of the farm stock of Mr. Edwin Ward, Greenbank, Ont., on March 14th, 18 Cotswold ewes sold for an average of \$33 each, 20 ewe lambs for \$20 each, and 20 ram lambs for \$25 each. At the sale of Geo. W. Verral's farm stock, in Etobicoke, York Co., Ont., last week, young Yorkshire pigs, hardly of breeding age, sold for \$20 each, brood sows in pig for \$50 to \$60, and weaning pigs up to \$10 each. A team of working horses sold for \$400, and another pair for \$380; capital prices.

QUESTIONS AND ANSWERS. Miscellaneous.

MUSTARD SPRAYERS.

You published an article in a May number of "The Farmer's Advocate," 1906, on spraying wild mustard. Could you please give me the address of a company who manufacture a good durable sprayer in Canada? Wild mustard is a terrible pest in this vicinity. S. G. C.

Ans.—Sparamotor Co., London, Ont.; and the Little Giant Sprayer Mfg. Co., Toronto.

BEANS.

What kind of land would be suitable for growing beans? Is there any difference in the locality in Western Ontario, and how many bushels per acre would be a good average crop under suitable circumstances? YOUNG INQUIRER.

Ans.—A rich gravelly or sandy loam is considered best adapted to bean culture, although in the bean district of Kent and Elgin Counties, Ont., a well-drained black clay loam is excellent. In some other parts, it is said, they do not do well on this kind of land, being subject to blight and rust. Avoid heavy clays. While there is no absolute limit for the bean-growing area, and while the crop may be grown with more or less success in many parts of the southern and western section of the Province, there is a belt of land in Kent and Elgin called the bean district, where the crop grows almost to perfection, and here the larger portion of the Canadian bean crop is produced. Twenty-five bushels per acre, by weight, is a good, fair crop, though a Kent County correspondent advises us the average yield in 1906 would have run only about 12 to 15 bushels, owing to the dry season.

HENHOUSE—CROPPING—HIRING PASTURE—LUMP JAW.

- 1. What would you advise to build a henhouse of, for cheapness and durability, room enough to hold one hundred hens?
2. I have a hundred acres of land. How many cattle, mostly cows, would you advise to keep and how many acres of grain, hay, and pasture, having a silo holding about six acres of corn?
3. Having about thirty acres of land adjoining the town, will it pay to pasture town cows at \$10 per season—number of cattle, 16 head—or would it be more profitable to pasture my own cows and send milk to the cheese factory?
4. Will lump jaw form on the upper jaw—a lump about the size of a cotton spool, hard on the jaw, not like other cases of the disease I have seen? Would you kindly give treatment?

CONSTANT READER.

Ans.—1. Build a frame house on a low stone or concrete foundation. Side up with inch lumber, batten, and line the north and west walls with tar paper. Half the south side should be window space, of which two-thirds should be canvas—not over one-third glass. On top of the plates lay plank or poles loosely, and over this have eighteen inches or two feet of straw. The house should be divided into three or four sections.

2. This question is too indefinite to answer, as so much depends on the land and how it is handled. One hundred acres of rich land, well cultivated, should sustain 50 cattle, four horses, and a herd of swine, but half this stock taxes the capacity of some farms. We might add that the area of corn grown need not be limited by the capacity of the silo. Some may be grown for husking or preservation as dry, unhusked fodder. We would suggest 25 acres hay, 25 acres pasture, 25 acres grain, and the balance corn, roots and fodder crops.

3. You can make a great deal more out of the land by pasturing your own cows and sending milk to the factory; whether you will derive more profit will depend on the quality of the cows and their management. It might be well to pasture some of these cows and supplement the feed of your own herd by using soiling crops of clover, peas and oats, millet and corn. There are tempting possibilities in this direction if one reduces the labor to a minimum.

4. Lump jaw is not confined to the locality of the lower jaw, but there are other causes than actinomycosis which account for the formation of excrescences about the head, so you may possibly be right in thinking this animal has not lump jaw.

This Washer Must Pay for Itself

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

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

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

You see I make Washing Machines—the "1900 Junior" Washer. And, as I said to myself, lots of people may think about my Washing Machines as I thought about the horse, and about the man who owned it.

But, I'd never know because they wouldn't write and tell me. You see I sell all my Washing Machines by mail. (I sold 200,000 that way already—two million dollars' worth.)

So, thought I, it's only fair enough to let people try my Washing Machines for a month, before they pay for them just as I wanted to try the horse.

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

When I say half the time, I mean half—not a little quicker but twice as quick.

I know it will wash a tub full of very dirty clothes in Six minutes. I know no other machine ever invented can do that, in less than 12 minutes, without wearing out the clothes.

I'm in the Washing Machine business for Keeps. That's why I know these things so surely. Because I have to know them, and there isn't a Washing Machine made that I haven't seen and studied.

Our "1900 Junior" Washer does the work so easy that a child can run it almost as well as a strong woman. And, it don't wear the clothes, nor fray the edges nor break buttons, the way all other washing machines do.

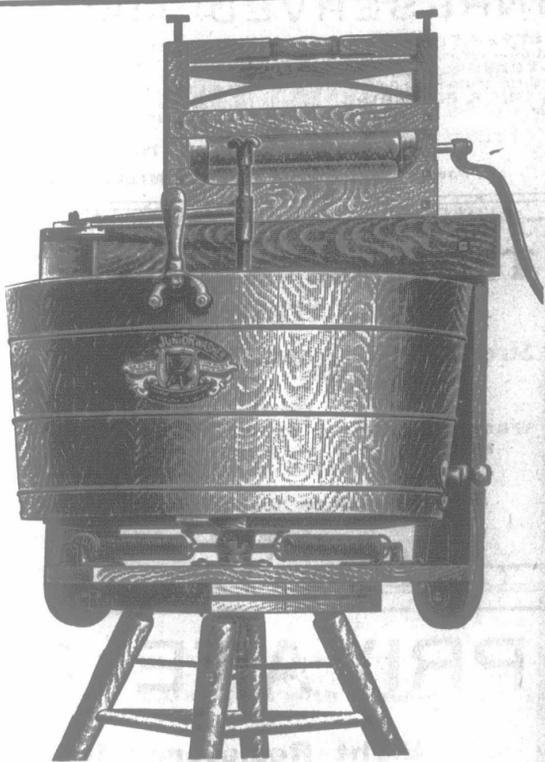
It just drives soapy water clear through the threads of the clothes like a Force Pump might.

If people only knew how much hard work the "1900 Junior" Washer saves every week for 10 years—and how much longer their clothes would wear, they would fall over each other trying to buy it.

So said I, to myself I'll just do with my "1900 Junior" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer to do it first, and I'll make good" the offer every time. That's how I sold 200,000 Washers.

I will send any reliable person, a "1900 Junior" Washer on a full month's free trial! I'll pay the freight out of my own pocket. And if you don't want the machine after you've used it a month, I'll take it back and pay the freight that way, too. Surely that's fair enough, isn't it?

Doesn't it prove that the "1900 Junior" Washer must be all that I say it is? How could I make anything out of such a deal as that, if I hadn't the finest thing that ever happened for Washing Clothes—the quickest, easiest and handsomest Washer on Earth. It will save its



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

Now, don't be suspicious. I'm making you a simple, straight forward offer, that you can't risk anything on anyhow. I'm willing to do all the risking myself! Drop me a line today and let me send you a book about the "1900 Junior" Washer that washes clothes in 6 minutes. Or, I'll send the machine on to you, a reliable person, if you say so, and take all the risk myself. Address me this way—F. A. B. Bach, Manager "1900" Washer Co., 355 Yonge St., Toronto, Ont. Don't delay, write me a post card now, while you think of it.

Advertisement for EWING'S SEEDS. Includes illustrations of various seeds (beans, corn, clover) and a list of products: EWING'S CHOICE RED CLOVER, EWING'S CHOICE LOWER CANADA TIMOTHY, EWING'S CHOICE ALSIKE CLOVER. Text: "Every planter needs just as good a yield from his land as possible. Make sure of your seeds before sowing. Buy them from a trustworthy source. Get EWING'S Reliable SEEDS. In the ground they are the most reliable seeds obtainable. Selected from the very choicest stocks. They can be depended on to give results that only "The Best" can. Ask for and be certain you get EWING'S. The brands by which our select qualities of Timothy and Clovers have been offered for so many years, have become synonymous with what is "genuine pure seed," and the "best obtainable in Canada or anywhere else." Write for our Illustrated Catalogue. WM. EWING & CO. Seedmen 142-146 McGill St. MONTREAL.

A Bargain. For Sale in Saskatchewan—320 acres of good land, adapted for mixed farming, 90 acres ready for crop. House plastered, with a stone cellar and poultry-house and workshop; good water and fuel; situated within one mile of G. T. P. town site, and in a good locality. Stock and implements may be had on premises. Owner wishes to move to Southern States. For immediate sale, \$16 per acre. Terms arranged. Correspondence solicited. Apply F. D. Burns, 506 McIntyre Block, Winnipeg.

SASKATCHEWAN LANDS. Wild and improved, in one of the best districts in the West. Write: J. F. MIDDLEMISS, Wolseley, Sask.

UNRESERVED AUCTION SALE

of SEVEN STRAIGHT SCOTCH SHORTHORNS, consisting of four Bruce Augustas, and three Cruickshank Butterflys; four of them imported and three bred from them. FOUR GLYDESDALE HARES, all registered. About SIXTY BERKSHIRE PIGS, headed by the imported Royal first-prize boar. All the farm stock and implements at the farm, LOT 32, CON. S. PICKERING, one mile from Asha Road, on C. P. R., and four miles from Stouffville on G. T. R., on TUESDAY, APRIL 2ND, 1907. Owing to ill health I must sell.

O. C. M'AVOY, ATHA, ONTARIO.

For catalogue write ROBERT MILLER, Stouffville, Ont.

The Bruce Agricultural Works, TEESWATER, ONT.

Strome Bros., Props., Successors to Gillies & Martin.

MANUFACTURERS OF

WAGONS, SLEIGHS, PLOWS, HARROWS, SEEDERS, PULPERS,
SCHOOL SEATS, MOWERS, DISC HARROWS, SCUFFLERS,
TURNIP SEEDERS, WOOD SAWS,

and all repairs for Gillies & Martin's Plows kept in stock.

WRITE FOR CATALOGUE AND CIRCULARS.

PRIVATE SALE

Eight Registered Imported Glydesdale Fillies

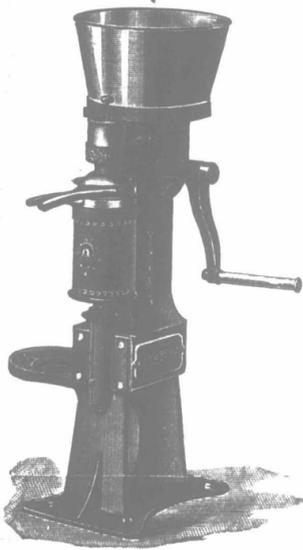
Personally selected in Scotland from the most successful breeders. The Scottish Farmer thus refers to the lot purchased by Mr. Elliott: "They are good-colored, thick fillies, with strong backs and quarters, and up to good sizes. Three are rising three years old, and the remainder are coming two. There is one particularly good two-year-old by Balmedie Queen's Guard, which won third at Gargunook last summer. Several of the others are by the Royal Gartly horse, The Dean, while others are by Royal Stewart, Casabianca's full brother, Baron Briton, Rothesay Bay, etc." And they are an exceptionally choice lot. Personal inspection invited.

JAMES ELLIOTT, PROPRIETOR,
Oxford Centre P. O., Ont.

These horses did not reach Woodstock in time for Mr. Innes' sale, hence the private sale.

EASY! EASY!

Do you know that there are two great points for the purchaser of a Cream Separator to consider, viz.: **Easy Turning and Easy Cleaning.** Why?



With easy turning you get perfection in construction, as the machine to do this must be made on correct mechanical lines. What machine is so constructed? The Magnet Cream Separator, which is built with square or common-sense gears, the only gears approved of by good mechanics for a fast-running machine.

Is it different from others? Yes. The others are built with worm gears, which, in their grinding motion, cause friction, making them turn hard and wear out quickly.

Is there a Cream Separator easy to clean? Yes, the Magnet! Because it has only one piece in its bowl, so constructed as to take all the cream out of the milk, and at the same time separate the disease germs and foreign matter from both. It can be cleaned in one-half the time required for other skimmers, thereby saving labor at least six days each year.

If everyone understood the great difference between the square or common-sense gear used in the construction of the Magnet, and the cheap worm gear used by the manufacturers of other Cream Separators, only Magnet Cream Separators would be sold. Send for our catalogue.

THE PETRIE MFG. CO., LIMITED,
Hamilton, Ont.; Winnipeg, Man.; St. John, N. B.

Western Distributing Points:

REGINA, SASK.; CARSTAIRS, ALTA.; VANCOUVER, B. C.

ADVOCATE ADVTs. ALWAYS PAY

GOSSIP.

Mr. D. Thody, Lambeth, Ont., six miles from London, advertises for sale an imported Shire stallion that has proved a sure sire of prizewinning and high-selling stock. He can be bought very reasonable; is guaranteed sound, and a good driver will be taken as part payment.

Mr. Wm. Duthie, Collynie, has sold his well-known stock bull, Bapton Champion, to Mr. W. T. Malcolm, Dunmore. He was bred by Mr. J. Deane Willis, and was his highest-priced calf in 1901. His sire is Silver Plate, and his dam, Cicely, of Mr. Cruickshank's Crocus tribe. The bull has been used for five years at Collynie. At the Uppermill sale last year the bull calf by him, King's Champion, was sold to Mr. Joliffe at 320 gs., and Prince's Champion to Mr. Casares at 320 gs. Bapton Champion is equally notable as a cow-getter. The dam of Mr. Mitchell's last year's record-priced 850 gs. calf, Gold Mint, was by him, as also the dam of Collynie Monarch, purchased by Mr. Leopold de Rothschild at 800 gs.

HORSE VALUES HIGH.

The remarkable advance in the price of horse stock during the past year or two, says the Live-stock World, of Chicago, proves conclusively that the automobile has not been successful in putting the horse out of business. In fact, although there is a big increase in the number of horses in the country, the demand has expanded so much that even now the supply is considerably short of the requirements. Automobiles are owned by the well-to-do, and really do not supplant the horse to any great extent, and then only one class—the roadster. The great demand for horses now centers largely on drafters, of which the shortage is keenly felt, when there is so much teaming to do. This shows again that the production along agricultural and industrial lines has been so great that it has been almost impossible to get enough cars and horses to haul it. Although high prices have naturally attracted many people to the horse-raising business, it is generally predicted that it will be years before the supply will catch up, in spite of new electrical appliances. The man who said that the horse would soon become obsolete evidently has another guess coming.

OTTAWA PROVINCIAL SALE.

Following is the list of cattle disposed of by auction at the Provincial sale of pure-bred stock, at Ottawa, March 6th:

Shorthorn bulls.—Donald, Peter White, Pembroke, to Alex. Stewart, Wabagoon, \$125; Money Maker, Samuel Bray, Enfield, to Geo. Flavelle, Stittsville, \$100; Bonnie Lind, J. W. Barnett, Brooklin, to H. Hilliard, Kirk's Ferry, \$50; King Arthur 2nd, A. H. Foster, Twin Elm, to A. Stinson, Jockdale, \$65; Nelson P. Cochran, Almonte, to Albert Eagleson, Hazeldean, \$64; Roan Boy, Norman F. Wilson, Cumberland, to J. J. Black, Winchester, \$50; Merry Duke, S. McLelland, Beachburg, to G. & W. Morrison, Lancaster, \$80; Prince Gloster, Jas. Leask, Greenbank, to John A. Gamble, Cumberland, \$75; Mayflower's Boy, D. Barr, Renfrew, to Jos. Kerr, Ironside, \$67.50; Nonpareil Comet, N. F. Wilson, to D. Barr, Jr., Renfrew, \$70; Nonpareil's Stamp, N. F. Wilson, to W. E. Baird, Kinkora, \$62.50; Fendale Prince, J. W. Barnett, to Jas. Blair, Arnprior, \$87.50; Pilgrim, D. Muirhead, Renfrew, to Wm. Neely, Joint, Que., \$42.50; Carleton, A. H. Foster, to J. M. McArthur, Carleton Place, \$55; Marathon, Peter White, to A. Spratt, Billing's Bridge, \$82.50; Smithfield Beau, R. E. White, Balderson, to Geo. Storey, Panmure, \$55; British Heir, T. J. Graham, Britannia Bay, to Stewart Craig, Kincburn, \$17.50.

Females.—Tiddewinks, A. Hagar, Plantagenet, to J. E. Brethour, Burford, \$105; Maida Neil, S. Roberston, Arnprior, to Albert T. Jenkinson, Ashtok, \$100; Belmar Crimson Flower, Peter White, to D. B. McLaren, Carleton Place, \$90; Lucretia, F. W. Richardson, Billing's Bridge, to W. H. Harton, Twin Elm, \$80; Belmar Countess, Peter White, to D. B. McLaren, \$130; Jane McKay, Wm. Boyes, Brooklin, to J. J. Black, \$15; Lady Graceful, Samuel Bray, to J. J. Black, \$50; Floss, S. Bray, to J. J. Black, \$10; Missie of Walnut Grove 3rd, J. W. Barnett, to J. J. Black, \$10.

VALUABLE MEDICAL PRESCRIPTION

Strongly Recommended by a Well-known Toronto Doctor.

The following very valuable prescription will be appreciated by many who are suffering from La Grippe, as it is a certain cure, and will save many a doctor's bill. It is almost a certain preventive as well: "When you feel that you are taking cold or have that chilly feeling or aching in any part of the body or head, go immediately to your druggist and get:

1 Bottle Psychine
(pronounced Si-keen).
1 doz. 2-gr. Quinine Capsules.

"Take two teaspoonfuls of Psychine in same quantity of water or sherry before each meal, and before retiring. Take a 2-grain capsule of quinine before going to bed also, followed by a drink of hot lemonade or other good hot drink. Do not be alarmed if you perspire freely—so much the better. The Psychine can be used without the quinine if preferred. Use it until cured. It will give certain relief."

The same doctor says he has found this prescription invariably successful in affording quick and permanent relief in cases of coughs, colds, catarrh, bronchitis and other throat and chest troubles. Mrs. Bean, who has taken this prescription, says:

"I had been suffering from La Grippe. My lungs were weak, and I had a cough, but Psychine cured me."

MRS. H. BEAN,
Cheapside, Ont."

Psychine can be procured from any druggist at 50c. and \$1. It is a very popular and largely-used remedy.

GRAND TRUNK RAILWAY SYSTEM

Easter Holiday Rates

Lowest one-way fare for round trip between
ALL STATIONS IN CANADA,
also to

DETROIT, PORT HURON,
SUSP. BRIDGE, BUFFALO,
AND NIAGARA FALLS, N. Y.

Good going

March 28, 29, 30, 31, and April 1,

Returning until

Tuesday, April 2, 1907.

For tickets, fares and information call on
E. DE LA HOOKE, City Passenger and Ticket Agent,
or E. RUSE, Depot Ticket Agent,
London, Ont.

WHEAT LANDS

Good values in wheat lands (improved and unimproved) in tested districts, near railways, elevators, churches, schools, etc., where water is easily obtained and homesteads are yet available. We have what you want. Write for particulars. Prompt attention given to all enquiries.

PEOPLE'S REALTY CO.

Box 737.

REGINA, SASK.

SHIP NOW

Consign your BUTTER, EGGS and POULTRY to

QUEEN CITY PRODUCE COMPANY, LTD.
100 Front St. E., TORONTO.

Prices good.

Quick returns.



WM. RENNIE, SR.
PIONEER OF CLEAN FARMING

Among the thousands who are now using Rennie's Seeds, in this and other lands, I see with pleasure that many are still on the list who were customers thirty-seven years ago.

Wm Rennie

Farmers and Gardeners of acknowledged standing—men of intelligent discrimination—have used

RENNIE'S SEEDS

every year for thirty-seven years, each year's results proving convincingly the wisdom of their selection.

Dependable quality—certain germination—and expert selection, have thus gained for Rennie's Seeds the confidence of Canada's premier agriculturists.

Remember this when deciding on seed supplies for 1907.

In the meantime, write our nearest address for a free copy of the Rennie Seed Annual.

Wm. Rennie Co. Limited
TORONTO
and
190 McGill Street . . . Montreal
278 Main Street . . . Winnipeg
66 Hastings St. West, Vancouver

FREE to the RUPTURED A QUICK NEW CURE

I have made new and important discoveries in the cure of Rupture, and for the next thirty days will give every ruptured person who follows these directions a chance to try this remarkable home cure. FREE. Mark on the picture the location of your Rupture, answer the questions, and mail this to DR. W. S. RICE, 85 CHURCH ST., BLOCK 306, TORONTO, ONT.
Age . . . Time Ruptured . . .
Does Rupture pain? . . .
Do you wear a Truss? . . .
Name . . .
Address . . .

When Writing Mention this Paper.

GOSSIP.

J. FORGIE'S CLYDESDALES AND SHORTHORNS.

Mr. John Forgie, of Claremont, Ont., in another column, is offering for sale the following well-bred and grand good Clydesdale mares and fillies: Linwood Lassie (imp.), a brown three-year-old, by Clan Chattan, one of the sweet quality kind, and safe in foal to that champion of sires, Imp. Macqueen; Ferne (imp.), a brown two-year-old, by The Summit, dam by Black Roi (imp.), grandam by Prince of Albion, also a smooth, quality mare, and safe in foal to Sir Norman, being bred in Scotland. These are a choice pair of young imported mares that combine size and quality. Besides these are a pair of fillies rising one year old, Canadian-bred, the making of a pair of big, good mares. One is by Imp. Macqueen, dam by The Royal Standard, grandam Nellie (imp.). The other is by Macqueen, dam by Imp. Baron Ruggie. Both are eligible for registration. The Shorthorns represent the Lady Dorothy, Meadowflower, Rose and Louisa strains, the get of the stock bull, Scotland's Fame, by Imp. Nonpareil Archer, dam Flora 51st, by Count Amaranth. Others in the herd are the get of Imp. Rustic Chief, Imp. Royal Sovereign and Sittytown Hero 10th. They are an up-to-date lot in type. For sale are three young bulls from 9 to 11 months old, all sired by the stock bull, and out of Scotch-bred dams. They are a desirable lot of young bulls—low-down and thick. Also for sale are a few heifers, from 1 to 3 years of age, bred right, and right every way. All the stuff mentioned will be sold at bargain prices. Look up the advertisement.

GLENGOW SHORTHORNS.

The Glengow herd of Scotch Shorthorns, the property of Mr. Wm. Smith, of Columbus, Ont., is one of the oldest-established herds in the country, founded 23 years ago by the purchase of the cow, Imp. Wedding Gift, bred by Lord Polwarth, whose ancestors on the dam's side belonged to what at the present time is known as one of the very best Scotch strains, the Minas. At present, the bulk of the herd belong to this great family, the get of such grandly-bred bulls as Lord Rosebery (imp.), Bright Light, Royal Bruce, and Imp. Ben Lomond, a Wimple-bred bull, and a show bull from the ground up. All the young bulls for sale are his get, and all are Wedding Gifts on their dam's side. Later additions to the herd were made by the purchase of representatives of such choice Scotch strains as the Crimson Flowers, Kibblean Beauties and Strathallans. Thus the herd, as it stands to-day, is as rich in straight Scotch blood as any on earth, besides the thick, mellow type indicates that they are exceptionally good doers, and it is a fact that many of the highest-priced females at some of the larger and more important sales in Canada and the United States were bred here, and Mr. Smith firmly believes that the Wedding Gifts or Minas and Strathallans have few equals as good doers and regular breeders. Certainly they have proved a source of wealth in his hands. At the coming sale at Myrtle, particulars of which may be found in another column, two heifers and two bulls of the Wedding-Gift strain will be sold, and they are choice animals. The present stock bulls are the massive Roar Lady bull, Imp. Royal Champion, a bull that for gilt-edged breeding and superior individuality has few equals in Canada; and his lieutenant in service, the Clara-bred bull, Lord Clare, a son of the Coral Gem-bred bull, Cyclone (imp.), dam a Marr Clara, by the Sunshine bull, Count Douglas (imp.), grandam Clara 57th (imp.), by Spicy Robin. In young bulls for sale are six, from ten to eighteen months of age, roans and reds, all got by Imp. Ben Lomond, and out of Wedding-Gift dams. They are the short-legged, thick-fleshed, good-doing sort, and owing to their superior breeding, excellent type, and the price asked for bulls of their kind, they should certainly soon change hands. In females, are a number of heifers belonging to the above enumerated families, and got by Imp. Ben Lomond, that have only to be seen to be appreciated. They are from one to three years of age, a very desirable lot to strengthen an existing herd, or as a foundation. Write Mr. Smith, to Columbus P. O., Ont.

HOLSTEINS BY AUCTION

H. E. George, Crampton, Ontario,

Will sell by public auction at the

TOWN OF NAPANEE, ONTARIO,
Friday, Mar. 29, '07,
COMMENCING AT 2 O'CLOCK, SHARP,

35 Registered, Imported
and Home-bred Holsteins

Of these 25 are young cows, fresh or due to calve soon, or calves by their side; also 5 yearling heifers and 5 imported bull calves. Several of the cows have large official records. Catalogues with breeding and records, etc., on request.

I propose making this a yearly event. Am offering a very choice lot. All will be sold without reserve.

Terms—Cash or bankable papers at 8 months' credit, with interest at 6 per cent.

Reduced rates on all railways.

H. E. GEORGE, PROP.,
Crampton, Ont.

Shorthorns, Clydesdales, Yorkshires BY AUCTION

Under Cover at MYRTLE, C. P. and G. T. R., on
FRIDAY, MARCH 29th, 1907.

THE MYRTLE SALES ASSOCIATION will hold their second annual sale of registered Shorthorns, Clydesdales and Yorkshires, comprising 15 Bulls from 10 months to 2 years of age, 15 Females from 1 to 4 years, 15 Yorkshire Sows, and 5 Yorkshire Boars, several Imp. and Canadian-bred Clydesdale Mares and Fillies, and a few Canadian-bred Clyde Stallions. The Shorthorns are Scotch and Scotch-topped, representing the Wedding Gifts, Miss Ramsdens, Crimson Flowers, Stamfords, Symes, Beauties, Princesses, and Lavinias. From the leading herds of Ontario. Show stuff will be sold. Terms—Cash, or 6 months on bankable paper, with 6 per cent. per annum. Single return fare on both railroads, and half price for shipment of stock.

Wm. Smith, President.
John Bright, Treasurer.
A. Quinn, Secretary.
JAMES BISHOP, Auctioneer.

Imp. Clydesdale Fillies by Auction

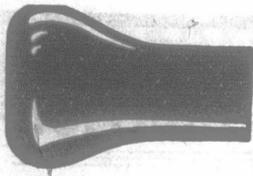
20—From 2 to 4 years old—20
At OTTAWA, ONTARIO.

I have personally selected in Scotland 20 of as good fillies as ever came over for sale, quality and breeding. Sired by Baron's Pride and his best sons and other noted sires. A number prizewinners. Sale at one o'clock.

APRIL 2nd, 1907,
At Butler House, OTTAWA.

Terms cash, or two months on bankable paper.

WM. MEHAREY, - **Russell, Ontario.**



THE SCRATCH OF A NAIL

if neglected may cause the loss of a valuable horse. Wire cuts, snag wounds, saddle and harness galls, sore shoulders, all demand prompt attention. One application of HORSE COMFORT is invaluable to the horse owner — it relieves and cures every kind of sore, it repels flies and brings comfort to the horse. Cures sore teats in cows. Most dealers sell it or we will send it direct. Write for FREE "Horse Comfort" book. If you have a cow ask for book, "The Cost of a Lost Cow." Dairy Association Co., Mfrs., Lyndonville, Vt.

HORSE COMFORT

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's

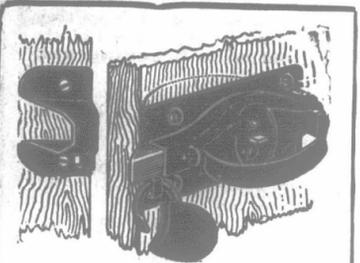
Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ontario



We want every reader of this paper to try a

Whitcomb Steel Barn Door Latch

The Whitcomb is the most convenient latch made. Can be attached to any door with ease. No fitting necessary. Holds door open or closed. Horses cannot open it. Nothing about it that will catch in the harness. Two large handles enable you to open the door from either side. Strong and durable. Enameled finish with galvanized bolt.

If your dealer doesn't handle the Whitcomb, send 50c to pay express charges and we will send you one latch free.

Albany Hardware Specialty Co.,
Box 115, Albany, Wisconsin.

Imp. Clydesdale Fillies!



Have now on hand about a dozen, nearly all imported. A high-class lot and very richly bred. Combine size and quality and all in foal. Also one-year old stallion. Write me, or come and see them.

Nelson Wagg, Clarendon P.O. & Sta.

Imported Clydesdales



Two 4-year-old and two 2-year-old stallions; one 2-year-old and two 1-year-old fillies; positively the best bunch I ever imported; richly bred, full of quality, abundance of size, and nice, true actors. Will sell them right. Terms to suit.

Telephone con. Gen. S. Stewart, Howick, Que.

IMP. CLYDESDALES



Three stallions, rising 3, and 7 fillies, rising 3; the big heavy kind, full of character; a superior lot, every one a show animal; will make over-a-ton horses, and breeding the most fashionable. Prices a little below any of the others.

J. A. SOAG & SON, Ravenshoe P.O. Brown Hill Sta.

CLYDESDALES AND SHORTHORNS—Canadian-bred, registered. One stallion, rising 3, by Imp. Macqueen. Two stallions, rising two, by Imp. Primrose. One filly, rising 2, by Imp. Macqueen. These are a choice lot. Show stuff among them. Also my stock bull, Gilbert Logan 36424; roan; weighs 2500; seven years old. Safe and sure. W. D. PUGH, Clarendon P.O. and Station.

ATHELSTANE SHORTHORNS!

Pure Scotch Rosewood, Fossilind and Counties strains. Ten one and two year old heifers of the above strains, the get of the Village-bred son of Imp. Knuckle Duster, Vicar 33355, and the Bruce Mayflower bull, Star Prince; also young bulls from 6 to 12 months old. Prices reasonable.

Wm. WALDIS,
Box 324, Stratford, Ont.

GOSSIP

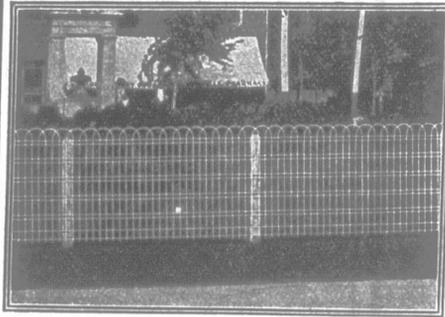
LONDON SHIRE SHOW.

A striking feature of the London (Eng.) Shire Horse Show, held this year the first week in March, was the very large number of entries in the numerous classes for the very liberal prizes offered.

In the class for stallions, one year old, there were 54 entries, first prize going to J. Gould's Lynn Grey, second to Earl Egerton's Tatton Setler. Two-year-old stallions, 78 entries—First, Lord Rothschild's Hotspur IV.; second, F. Farncomb's Ratcliffe Conquering King. Three-year-old stallions, 85 entries—1, Earl Egerton's Tatton Dray King; 2, Sir P. A. Muntz's Dunsmore Premier. Four-year-old stallion, 46 entries—1, V. Cavendish, M. P., Holker Menestrel; 2, W. Barr's Credential. Stallions under 16 hands 2 in., over four and under ten years old—1, Lord Winterstoke's Ravenspur; 2, N. Nuttall's Childwick Harold. Stallions, 16 hands 2 in. and over, four years and over—1, Lord Rothschild's Birdsall Menestrel; 2, Forshaw & Sons' Present King 2nd. Gold challenge cup and champion cup for best stallion—Lord Rothschild's Birdsall Menestrel; reserve, Earl Egerton's Tatton Dray King. Champion mare—Jas. Forshaw & Sons' Stolen Duchess, sired by Southgate Honest Tom, out of Westho Pride, by Dunsmore Willington Boy.

MOUNT PLEASANT HOLSTEINS AND TAMWORTHS.

About three miles north-west of Grafton Station, on the main line of the G. T. R., lies Mount Pleasant Stock Farm, the property of Mr. Bertram Hoskin, breeder of Holstein cattle and Tamworth hogs. Although only a young man, and consequently only a few years in the pure-bred stock-breeding business, Mr. Hoskin has worked up a splendid trade in Holsteins and Tamworths, the natural result of straight dealing and breeding the right kind of stock. His large herd of Holsteins is at present headed by the richly-bred bull, Queen's De Kol Duke, a son of Prince Yonintje Clothilde De Kol, whose dam, Princess Yonintje Pauline Paul, has a two-year-old butter record of 13.52 lbs., and a milk record of 51½ lbs. a day, and her dam, Princess Yonintje, has a butter record of 15 lbs. 1 ounce as a four-year-old, and his grandsire's dam, De Kol 2nd's Queen, has a record of 28 pounds 7 ounces; dam Queen De Kol (imp.), has a record of 16 lbs. 3 ounces, and her dam, Woodlands Queen, has a record of 15.64 lbs., breeding rich enough surely, and calves got by him should be producers and getters of producers, if there is anything in breeding. His predecessor was Duke Concordia De Kol, a grandson of Sadie Vale Concordia, whose butter record is 30 lbs. 10 ozs. in seven days. He is also closely related to Pauline Paul, whose yearly butter record is 1,153 lbs. 15½ ozs. This grandly-bred bull is sire of at least half the herd as it is to-day. Preceding him as stock bull was Sir Hamming De Kol, whose dam, Woodbridge Belle, gave 17,600 lbs. of milk in one year, and her dam, Edgeley Mol, gave 104 lbs. of milk in one day. None of the females of this herd have ever been officially tested, but very many of them have given on ordinary pasture 60 lbs. and over of milk a day, and bred as they are on such enormous producing lines, they should show wonderful results if tested. For sale are several young bulls and a few heifers, from five to ten months old, all got by the present grandly-bred stock bull, and out of daughters of the other bulls mentioned. In Tamworths, there is a big choice of both sexes and all ages; some very choice show stuff among them, the get of the Toronto double-champion, Colwell's Choice, and out of ideal bacon-type sows. Among the lot are a number of young sows ready to breed and sows out for service. Intending purchasers should remember that the early orders get the choice, and Mr. Hoskin will represent an animal exactly as it is. Write him at 235 Gully P.O., Ont.



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Every one a high-class actor and a show animal. Splendidly-matched pairs and singles. Positively the highest class lot of Hackneys to be found on any one farm in America. All ages. Also 4 imported Clydesdale fillies. A big, flashy lot, full of style and quality.

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Long-distance Phone.

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Importer of Clydesdales, Shires, Percherons, Belgians, Hackneys, Standard-breds and Thoroughbreds

of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long-distance phone. LISTOWEL P. O. AND STATION.

Imported Clydesdale Stallions and Fillies

My new importation comprises 3 stallions, two 2 years old and one 1 year old, by Everlasting, Baron Buchyvie and Ascot, and 5 fillies, from 1 to 4 years old, by Baron's Pride, Elator, Favorite's Heir and Ascot. They are a high-class lot, as good as ever crossed the water. Come and see them. All are for sale at living prices.

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Clydesdale Stallions!

first-class Hackney.

I have on hand for sale another choice lot of Clydesdale stallions, newly imported, ranging in age from two to six, with plenty of size, style and good true action. Also one

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Our Clydes now on hand are all prizewinners, their breeding is glib-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. Phone North 4483.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

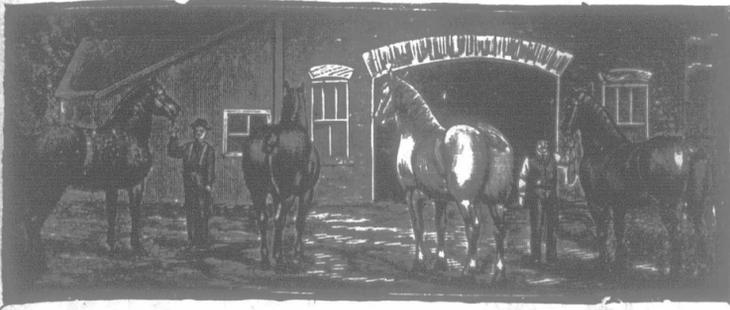


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30 PERCHERONS

Also Shires, Hackneys and Clydes, have just arrived with our new importation from Scotland, England and France, of high-class stallions and mares. Many of them prizewinners in their native lands. Bred by the best breeders. Percherons, blacks and grays, weighing 1,800 to 2,000 pounds. Shires at two years old weighing 1,700 pounds. Clydes, bays and blacks, 4 and 5 years old, weighing 1,800 to 2,000 pounds, bred by the best in Scotland. Our Hackneys are bays and chestnuts, combining size quality and breeding that cannot be beaten. We have a few first-class young stallions that we will sell at cost, to make room for our next importation; and all for sale at reasonable prices.

HAMILTON & HAWTHORNE, Simcoe, Ont.
88 miles south-west of Toronto on the G. T. R.



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J. Crouch & Sons, Props., La Fayette, Ind.

Largest importers in America of German Coach, Percheron and Belgian stallions. Over 300 head on hand at all times. All have the best of bone, style and action, and on which we will put a gilt-edged guarantee they must be satisfactory, sure breeders. Won more prizes in the American show-ring in 1906 than all other importers combined. Our guarantee is the best. Terms to suit buyers. Importations arriving every few weeks insure prospective buyers a large selection from which to make a purchase.

J. CROUCH & SON, La Fayette, Ind.
La Fayette is but six hours' ride from Detroit via Wabash Railroad.



IMP. CLYDESDALES & HACKNEYS

Stallions and fillies of both breeds, representing the best blood of England and Scotland, combining size and quality and faultless action. If in want of something exceptionally choice, come and see me. You will not be disappointed. Prices right.

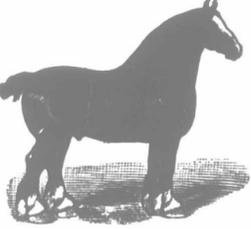
DUGALD ROSS, Streetville, Ont.
Write for catalogue.



Clydesdales, Percherons and Hackneys

I have still on hand 12 Clydesdale stallions, 4 Clydesdale fillies, all imported; Scotland and Canadian prizewinners; 3 years old, that will make 2100-lb. horses of choicest quality and richest breeding; 4 bl. cs Percheron stallions, 3 years old, big, flashy, quality horses, and 6 Hackney stallions, 1st-prize and championship horses among them. Will sell reasonable and on terms to suit.

DR. T. H. HASSARD, Millbrook P.O. and Stn.



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Established 30 years, and winners at all large shows in Canada and United States. Best of stock always on hand for sale. New importation of Royal winners just arrived.

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Farm Three-quarters of a Mile from Station.

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have now on hand a choice selection of Clydesdale Stallions, combining size and quality with straight, true action. Breeding unsurpassed. Individuality unexcelled, Scotland prizewinners. Also a few Canadian-bred stallions, and imp. and Canadian-bred fillies.

Long-distance Phone Myrtle Station, C. P. R., Brooklin or Oshawa, G. T. R.

QUESTIONS AND ANSWERS. Veterinary.

BONE SPAVIN, ETC.

1. Eight-year-old horse has a bony enlargement at the seat of spavin of off hock. He is not lame.
2. Does 1 1/2 cracked barley and 2-3 rolled oats make a good grain ration?

D. K.

Ans.—1. You cannot remove the enlargement, and as there is no lameness to cure you had better leave it alone. If lameness should appear, get your veterinarian to fire and blister it.

2. Yes.

V.

NASAL GLEET.

Two years ago, my horse had influenza, and ever since he has had a cough and an irregular discharge from his nostrils. Sometimes the discharge is whitish, and sometimes darkish, and sometimes partakes of the color of the food he has eaten.

A. M.

Ans.—This is a form of nasal gleet, and it is doubtful if a cure can be effected. Take 6 ounces sulphate of copper, 8 ounces sulphate of iron, and 3 ounces iodide of potassium, pulverized finely. Mix, and make into 48 powders. Give a powder every night and morning. Repeat the prescription, and, if you see an improvement, repeat as often as necessary.

V.

INAPPETENCE.

Cow calved in November. In January, she refused to eat, and the supply of milk gradually decreased. She will eat very little hay and a few turnips. Stands with nose protruded. I am giving her a proprietary medicine and stimulants, but she takes little, except what I drench her with.

J. A. W.

Ans.—This is a form of indigestion, probably due to disease of the liver. If the liver is diseased, she will not recover. Purge her with 1 lb. Epsom salts and 1 ounce ginger. Follow up with 2 drams each of nux vomica, ginger, gentian and bicarbonate of soda, three times daily. Keep her strength up until she will eat by drenching her with boiled flaxseed.

V.

OEDEMA—REGISTRATION.

1. Yearling calf's jaws and lower lip are swollen to about an inch thick, and hard. Another calf is going the same way. Their tongues are all right.

W. B. G.

2. I have a Clydesdale filly with four crosses, but I do not know whether she will register.

Ans.—1. Bathe long and often with hot water, and after bathing rub with a liniment, composed of 1 dram each, biniodide of mercury and iodide of potash, to 8 ozs. water. Give 10 grains iodide of potash night and morning for a week.

2. If she has four crosses of registered sires she will register. Write the Accountant, Live-stock Records, Department Agriculture, Ottawa, giving the extended pedigree, and he will let you know whether she is eligible.

V.

LYMPHANGITIS.

Clyde mare, due to foal May 1st, had scratches last fall. I treated them, and they would break out in fresh places. A month ago she suffered from lymphangitis in one hind leg. My veterinarian treated her, and the soreness disappeared. The swelling disappears when she is given eight or nine miles' exercise, but returns when she stands. I am feeding hay once daily, and straw twice daily, with a bran mash and half a cupful raw oil twice daily, and give her 3 to 4 miles exercise daily. My veterinarian told me to give a teaspoonful of saltpetre two or three times weekly. I saw the treatment you advise in last week's Advocate. Would iodide of potassium do well in this case? I am using oxide of zinc and vaseline for the scratches.

J. O. C.

Ans.—The less medicine a pregnant mare gets the better, and we do not like to give such patients potassium iodide. Cases like that you cite are not rare in pregnant mares, especially those with beefy legs. I would advise you to do as your veterinarian advises. Be sure and give regular exercise. It is probable the legs will continue to swell until after she foals, but the tendency will gradually disappear afterwards, until she goes into the stable again next fall.

V.



Warranted to give satisfaction.

GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

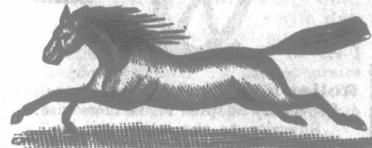
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Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address:

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Have arrived home from Scotland with another importation of

12 Clydes and 2 Hackneys

selected from the best breeders in Scotland, and sired by Baron Fride, Montrave Mac and other noted horses. We have in all about 30 stallions in the barn—Clydes, Shires and Hackneys. Intending purchasers will do well to inspect, as these horses are all high class, and cannot be beat for true breeding quality and size.

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Percheron Shire and Hackney

STALLIONS AND MARES.

Have won more gold medals and championships than any other exhibitor. Stallions two to four years old, and mares in foal three to six years old.

Stallions \$700 to \$1,000; on easy terms.

Mares \$300 to \$600 for choice.

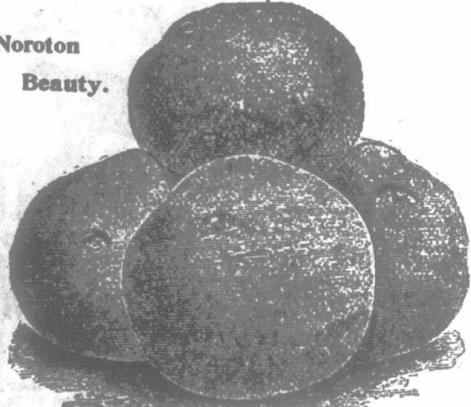
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SHETLAND PONIES!

P. McCullough & Son Breeders and importers of Shetland ponies, Markdale, Ont. We showed 8 ponies at Toronto Exhibition in 1906, and got 3 prizes: 3 firsts, 4 seconds and 1 third. All our ponies are imported. Our stallion, Foxglove, took first prize at Toronto. Our mare, Bessie, took first prize, and their foal, Bruce, took first prize also. Good accommodation for mares sent from a distance to breed. Ponies for sale. Our address: Markdale P. O., Ont.

CLYDESDALES AND SHORTHORNS—
Two imp. Clyde mares, 2 and 3 years old, bred in the purple and both in foal. Two fillies rising a year, both sired by the great Macqueen, both will register—a grand pair. Three Shorthorn bulls from 8 to 11 months of age, Scotch, and a few heifers. **JOHN FORBIE,** Clarendon P. O. and Station.

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The Best All-Round Potato

NEW NOROTON BEAUTY.—It is a lineal descendant of the famous Peach-Blow, being a seedling from a seedling of that variety. We may summarize its merits as follows: It is the earliest potato ever grown. It is by far the most productive extra early, yielding as heavily as any of the medium early sorts. It is handsomer in appearance and more uniform in size and shape than any other variety. Its table quality is superb, and it keeps longer than any other sort, early or late. It is the best all-round potato in existence. We have grown this variety for two seasons, and highly recommend it. Price: 1 lb., 20c.; 5 lbs., 85c.; postpaid to Canadian points; peck, 75c.; 1/2 bush., \$1.20; bush., \$2.10; bag, \$3.00, here. Shipment as soon as safe in spring. Order early.

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Established 1850.



QUESTIONS AND ANSWERS.
Veterinary.

PARTIAL PARALYSIS.

Seven-year-old dog that has been a good one, has become entirely useless. He has partially lost the power of his legs, and when attempting to run, often falls on his head.

W. A. M.

Ans.—This is partial paralysis, and it is doubtful if he will recover. Purge him with 2 drams jalap and 4 grains calomel. Follow up with 5 grains of nux vomica, three times daily. If this causes a twitching of the muscles, reduce the dose.

INDIGESTION.

Five days after calving, cow ceased eating. I gave her a quart of oil, and in a week gave her a pound of salts, but she is not much better.

I. S.

Ans.—Purge her with 2 lbs. Epsom salts and 1 ounce ginger. Follow up with 2 drams each of nux vomica, gentian and ginger and 1 dram sulphate of iron, three times daily. Feed often in small quantities.

V.

Miscellaneous.

LARGEST CITIES.

Please inform me which three cities in the world have the largest population.

A CONSTANT READER.

Ans.—According to one of the latest geographies in use in the schools, the population of the three largest cities in the world is as follows: London, Eng., 4,536,063; New York, 3,437,202; Paris, France, 2,511,629.

WHAT BREED OF SHEEP?—DEPTH OF TILE.

1. What breed of sheep would do best on level country, such as the central part of Essex County—well drained? Would Dorset Horned sheep do well? Would 100 be too many to keep on one hundred acres?

2. What depths would you advise putting tile on heavy clay loam, practically level?

G. B.

Ans.—1. Do-sets should do well on such land; so should some of the heavier breeds; such as Lincolns or Oxford Down. If you kept very little other stock, 100 sheep might be kept on a 100-acre farm, but with an average number of other stock, one-half the number of sheep would be enough.

2. The deeper the drains, the further they will draw, unless the subsoil is hard pan. We would advise three feet in your case.

MARE NOT COMING IN HEAT—PEAS ON SOD.

1. I have a mare, about 12 years old, that I would like to breed, but all last summer I never saw her in season but once, and then it was scarcely discernible, working steady, in good condition. How can I treat her for breeding?

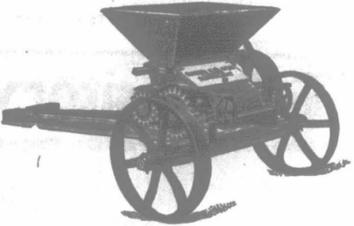
2. I have a field in rather poor condition; has a good deal of spear grass in it that I would like to get rid of. Have no time to cultivate it. Grew oats last year. Would peas do well, and smother out the grass so that I could sow wheat and seed to clover? If so, what kind of peas would be best, and how much to sow per acre, or what would be best to sow to plow under that would smother out the grass?

W. H. D.

Ans.—1. It is claimed by some stockmen that an animal manifests its strongest sexual desire while improving in condition. On this theory it might be well to reduce the mare somewhat, then gradually feed her up, taking care not to work her too heavily. A laxative diet is advisable; there is nothing better than grass.

2. There is no crop better than peas for choking out grass, and at the same time improving the condition of the land. Golden Vine seems to be the most popular variety throughout Ontario, although a brown pea, called Early Britain, introduced by the Experimental Department of the O. A. C., has given good results in co-operative experiments throughout Ontario. Sow two bushels per acre. If some other crop than peas were to be grown, we would suggest corn, planted in hills, rowed both ways, and cultivated six or seven times during the season.

Elmira Grain Crusher



Roller 16 ins. long by 8 1/2 ins. diameter. Especially adapted for farmers' use. Superior to any plate grinder for grinding all kinds of grain, especially for horses and cattle. Write us if interested.

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For Sale: A Registered Clydesdale Stallion
First-class, coming 3 years. Color, rich brown; small stripe and little white on two feet. Sired by Imp. Pioneer [1131] (3374), of Darnley breeding. Dam out of the Imp. prizewinner, Culmain Lass (1913), and granddaughter of old Prince of Wales (673), sired by Imp. Queen's Own (7176) [1708], winner of several gold medals in Canada. A promising colt, of the very choicest combination of breeding, with near ancestors leading winners in keenest competitions. Price very moderate for quick sale. **JOHN CAMPBELL, Fairview Farm, Woodville, Ont.**

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Aluminum Ear Markers
are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free. Ask for them. Address
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In A. R. O. test a Sylvia female has just made 605 1/2 lbs. milk and 28.04 lbs. butter for 7 days. Who wants her son by Sir Alta Posch Beets? Four other of his sons for sale. A sister to his dam has just made over 32 lbs. butter in 7 days. Prices right.

G. A. GILROY, Glen Buell, Ont.
Brookville Stn., G.T.R. or C.P.R.

Imported Shire Stallion for Sale!

BAY PRINCE V. (14476).

Sire Black Prince (2989) dam Oak Leaf, by Oak Apple (2472).
Weight, 2,150 lbs. in moderate condition. Perfectly sound. Guaranteed sure. His colts have won many first and second prizes at prominent shows, and are selling at \$200 to \$300 each. Would take as part pay a good driver.
Electric R. R. 6
miles from London.

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Lambeth, Ont.

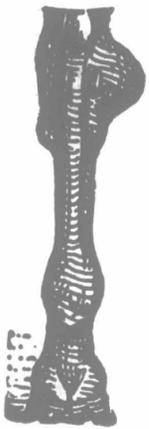
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A BOG SPAVIN or
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will clean them off, and you work the horse same time. Does not blister or remove the hair. Will tell you more if you write. \$2.00 per bottle, delivered. Book 4-C free.

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Made in United States for years before it was made in Canada. Don't buy the cheap kind—they are not cheap, but dear in the end.

We are not offering goods because they are the lowest in price—quality is our motto—and quality is all we have to sell.

SPECIAL MERITS:

Requires no coating or paint.
Acids and alkali proof.
Not affected by gases or vapors.
Elastic and pliable.
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Absolutely water-proof.
Climate changes do not affect it.
Both sides alike.
Practically fire-proof.
Non-volatile.
Easily applied.
Can be used on steep or flat surfaces.
Any workman can put it on.
No odor.
Will not shrink or crack.
Light in weight.
Does not taint water.



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Samples and Prices

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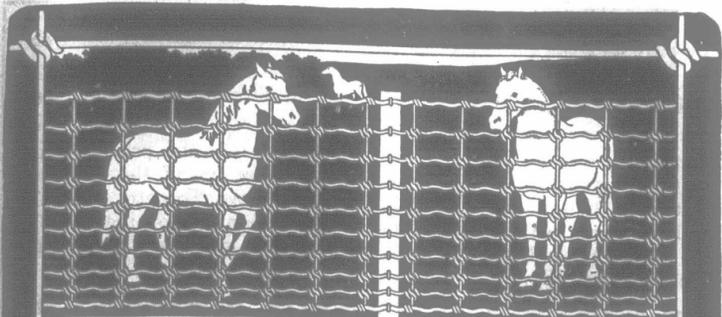
Tudhope Carriages

When a man buys a Tudhope Carriage, he knows he has gotten a full money's worth. He knows he has bought the best materials—put together by Tudhopes who have been born and raised in the business. The very name Tudhope means money to every man who buys Carriages.

TUDHOPE No. 52
is daily adding fame to the Tudhope Carriage Makers. Corning body. Side spring gear—double reach with full length steel plates. Bell collar steel axles. Dayton fifth wheel. Quick shifters. Double bar dash rail, seat handles, and hubcaps nickel plated on brass. Write for free illustrated catalogue.

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YOU should build fence like you make other permanent improvements. Tinkering does not pay. Fences made of light wire, and wires that break rather than give when it gets cold; fences that an unruly animal could break through; fences not properly stayed—these are not paying fences. Ideal fence is the right kind. It is made of No. 9 hard steel wire from top to bottom, and is heavier and stronger than any fence on the market. Remember, it costs no more to dig your post little fence book gives you all the pointers. Write us today for free copy.

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The HEREFORDS are the range cattle par excellence. They grow near the ground. They make flesh rapidly and easily, and they will make money for you. Over 100 head of breeding stock of the most approved strains on hand at low prices.

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Present offering: 10 bulls, serviceable ages; 4 of them over 2 years; big, strong, sappy fellows; ready for heavy service or rough usage on the ranch; also breeding cows at prices that will move them. Must make room for this year's crop of calves. Come and see them, or write and tell me what you want. ARTHUR F. O'NEIL, Maple Grove, Ont., Middlesex Co.

Broxwood Herefords

Cows, heifers and calves For Sale.

R. J. PENHALL, Nober, Ont.

FOREST VIEW FARM HEREFORDS Four bulls from 8 to 18 months old; prize winners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale. JOHN A. GOVENLOCK, Forest Sta. and P.O.

HEREFORDS—We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you. J. A. LOVERING, Coldwater P.O. and Sta.

DURHAM BULLS FOR SALE

I have three good bull calves for sale, one red and two roans. Clementina, Nonpareil and Broadhooks pedigrees, and sired by such bulls as (imp.) Sley Count and (imp.) Old Lancaster. All fit for service. Box 558

HUGH THOMPSON, St. Mary's, Ont.

Angus Cattle

The kind that get market top price. We have for sale 7 young bulls from 9 to 16 months old; also females all ages. All eligible for the American Herdbook. From good families and good individual merit. J. W. BURT, Aberdeen Farm, Coatingsby P.O. 3 1/2 miles from Erin sta., C.P.R.

ABERDEEN - ANGUS

Erica and Blackbird families Young bulls and females. All ages. Write: JOHN UNDERWOOD, GRAFTON, ONT.

READ THIS! We are offering a dark red Durham bull 14 months old weighing 1,000 lbs., for \$75. A two-year-old bull, light roan, heavy boned, extra good getter. \$85. Females equally cheap. W. R. SOWMAN, Mt. Forest, Ontario.

SHORTHORNS

Six superior yearling bulls, some of them out of great milch cows; heifers of all ages. A lot of very big yearlings and a few heifer calves cheap.

CLYDESDALES

Two mares 5 years old, one an extra good one, and a pair of geldings 4 years old.

JAS. McARTHUR, Gobles, Ont.

Shorthorns for sale—Herd bull, Prince of Banff (imp.) = 45212 =, and three young bulls 12 months old; also a few heifers and young cows with calves at foot. Prices reasonable. Correspondence solicited. D. HILL, Staffa P.O., Ont.

Maple Hill Stock Farm Scotch Shorthorns—A special offering of a red bull calf of Missie family, sired by Rustic Chief (imp.) = 40419 =; also some choice females by Wanderer's Star = 48686 = and Lucerne (imp.) = 60083 = WM. R. ELLIOTT & SONS, Guelph, Ont.

Shorthorns Stamford's English Ladies, Mildreds, Marthas, Nonpareils. 3 choice bulls 14 months old. 3 heifers 2 cows. Breeding unsurpassed. Canadian and American registration. F. W. FWING, Salem P.O., Elora Station.

Shorthorns for Sale—Five choice bulls, all from imp. sires, and three of them from imp. dams; also females of all ages. Scotland's Fame (imp.) at head of herd. ALEX. BURNS, Rockwood P.O. and G.T.R. Sta.

Brown Lee Shorthorns—Present offering is 8 young bulls from 9 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beaucamp. Prices very reasonable. DOUGLAS BROWN, Arr P.O. and Station.

QUESTIONS AND ANSWERS. Veterinary.

DISLOCATION OF PATELLA.

Heavy mare, three years old, has several times shown a stiffness in hind legs, sometimes one, and sometimes the other. She drags the leg, being unable to lift it, or fetch it forward. After standing a day, she gets all right.

R. J. M.

Ans.—This is dislocation of the patella. Repeated blistering is the treatment. Blister the front and inside of both stifle joints. Details for blistering are given in answer to L. E. E., this issue. V.

UNTHRIFTY COW—ABORTION.

1. Cow that eats and milks well is stiff in hind quarters, and has failed in flesh. I do not think she is in calf.

2. Will a cow that has been treated with carbolic acid after aborting be liable to infect other cows? D. W.

Ans.—1. Purge her with 1 1/2 lbs. Epsom salts and 2 ounces ginger. Follow up with 2 drams each of nux vomica, gentian and ginger, three times daily. As she is not in calf, I would advise you to allow her to go dry, and endeavor to fit her for the block.

2. If she is affected with infectious abortion, she is liable to contaminate others so long as there is any discharge from her genital organs. V.

STOMACH STAGGERS.

Mare is in the habit of acting in the following manner: Her ears begin to twitch, and then she holds them flat, throws head around towards flank, staggers, and would fall if left alone, jumps backwards, then forwards, etc. The attack usually lasts about half a minute, and she may have two or three attacks within ten minutes, and is then liable to go for several days without another.

W. A. Y.

Ans.—This is stomach staggers. Draw 6 quarts blood from the jugular vein; purge with 8 drams aloes and 2 drams ginger, and follow up with 1 dram iodide of potash night and morning for about ten days. Feed lightly. In many cases treatment gives only temporary relief. V.

BOG SPAVIN.

1. Yearling colt has a soft lump on the front of the hock, where a spavin grows. Will the leg always be stiff?

2. What will make the hair grow on a scar? L. E. E.

Ans.—1. This is a bog spavin, and in most cases lameness and stiffness can be cured. Get the following blister: Two drams each biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off the parts; tie so that he cannot bite them. Rub well with the blister daily for two days, and on the third day wash off and apply sweet oil. Turn in a box stall now, and oil every day. Feed lightly. When the scale comes off, tie up and blister again. If necessary, put a third plaster on in a month after the second.

2. When the hair roots are destroyed, nothing will make the hair grow. When the roots are not destroyed, the daily application of sweet oil encourages the growth. V.

SPECIFIC OPHTHALMIA.

Horse's eyes get sore every month or six weeks. They scum over so that he can scarcely see, and then clear off again, and he can see fairly well, until the next attack. J. A. M.

Ans.—This is called specific or periodic ophthalmia. This is a constitutional disease, and the attacks cannot be prevented with any degree of certainty. The administration of 20 grains of the sulphate of quinine, three times daily, tends to prevent the disease. Treatment for an attack consists in keeping patient in a comfortable, partially darkened box stall, feeding lightly, bathing the eyes, three times daily, with hot water, and, after bathing, putting a few drops of the following lotion into each eye: Sulphate of zinc, 10 grains; fluid extract of belladonna, 20 drops; distilled water, 2 ounces. In all probability, a cataract will soon form in each eye, and the horse will be permanently blind. V.

Does Your FOOD Digest Well?

When the food is imperfectly digested the full benefit is not derived from it by the body and the purpose of eating is defeated; no matter how good the food or how carefully adapted to the wants of the body it may be. Thus the dyspeptic often becomes thin, weak and debilitated, energy is lacking, brightness, snap and vim are lost, and in their place come dullness, lost appetite, depression and languor. It takes so great knowledge to know when one has indigestion, some of the following symptoms generally exist, viz.: constipation, sour stomach, variable appetite, headache, heartburn, gas in the stomach, etc.

The great point is to cure it, to get back bounding health and vigor.

BURDOCK BLOOD BITTERS

is constantly effecting cures of dyspepsia because it acts in a natural yet effective way upon all the organs involved in the process of digestion, removing all clogging impurities and making easy the work of digestion and assimilation.

Mr. R. G. Harvey, Ameliasburg, Ont., writes: "I have been troubled with dyspepsia for several years and after using three bottles of Burdock Blood Bitters I was completely cured. I cannot praise B.B.B. enough for what it has done for me. I have not had a sign of dyspepsia since."

Do not accept a substitute for B.B.B. There is nothing "just as good."

T. E. ROBSON,

Live-stock Auctioneer

2 BEGHER ST., LONDON, ONT.

SHORTHORN BAPS

Roan bull, just 3 years old, purchased from Messrs. B. A. & J. A. Watt; also one white bull calf 9 months old, two roan cows, 4 and 5 years, purchased from Messrs. J. Watt & Son; also 3 red heifers, 9 mos., 1 year and 2 years old; will sell cheap, as I am going out of business. Am also offering two well-bred Ayrshire bulls, 14 mos. and 2 years, the younger is sired by Levenshook King of Beauty (imp.); also two Ayrshire cows. For particulars and prices write D. ALLAN BLACK, Kingston, Ontario.

Pleasant Valley Shorthorns

Herd headed by Imp. Ben Lomond = 41100 =, assisted by Bud's Emblem, 2nd-prize senior bull at Toronto, 1906, son of Old Lancaster 50368. Correspondence solicited. Inspection invited. GEO. AMOS & SON, Moffat Sta. & P.O., C.P.R. Farm 11 miles east of City of Guelph.

MAPLE GROVE SHORTHORNS

My present offering consists of imported and home-bred cows and heifers, also four young bulls bred by Lord Bass' Conqueror. He is one of the best stock bulls of his breed. Terms and prices to suit the times. C. D. WAGAR, Enterprise Sta. & P.O., Addington Co.

Maple Lodge Stock Farm

1854-1907.

Am now offering a grand lot of young Shorthorn Bulls, several from choice milking strains. Also a few extra good heifers.

A. W. SMITH, MAPLE LODGE, ONT.

GREENGILL HERD of high-class

SHORTHORNS

We offer for sale 8 young bulls, a number of them from imp. sire and dam; also females with calf at foot or bred to our noted herd bull, Imp. Lord Roseberry.

R. MITCHELL & SONS, Nelson P.O., Ont.; Burlington June, Sta.

Spring Valley Shorthorns

Offer some nice young heifers and cows in calf and with calves at foot; also two nine months' bull calves, both very choice, sired by Imp. Bapton Chancellor. Prices reasonable. Write, or come and see them.

KYLE BROS., Arr, Ontario.

Belmar Parc Shorthorns

WE think we have as great a lot of young show animals as has ever been on one farm in Canada. Our herd is large, the individuals are choice and of the richest Scotch breeding, and our prices are moderate. 15 young bulls, 25 heifers under three years. A splendid group of breeding and show matrons. Mostly in calf to the champion Marigold Sailor =53258= and the prizewinning Nonpareil Archer (imp.) =45202=. Pembroke is on the main line of the C. P. R. and the Canada Atlantic Division of the G. T. R. You can leave Toronto 11 a. m., arrive Pembroke 12.05 p. m., see the herd, and arrive Toronto next morning at 7.20. We prefer you to see the cattle, but if you can't spare the time we take special pride in filling mail orders satisfactorily.

John Douglas, Manager.

PETER WHITE, Pembroke, Ont.

R. A. & J. A. WATT

OFFERS FOR SALE THE
CHESTNUT TROTTER-BRED S ALLION, REGAL PERFECTION
Right in every way. He is a handsome horse; a sure winner in any company.
Elora Station, G.T.R. & C.P.R. SALEM, ONTARIO.
Visitors always welcome.

Special Offering of Scotch SHORTHORN BULLS

3 just past two years old; 15 just over one year old; 7 just under one year old.

The best lot we ever had to offer in individuality and breeding, and prices are right. Catalogue.

John Claney, Manager. H. CARGILL & SON, Cargill, Ont.

AT "MAPLE SHADE"

Our young bulls are the best that our herd has ever produced. We can furnish Cruickshank bulls of high quality to head the best herds, and some that should produce the best prime steers. We have a bull catalogue. Send for one.

JOHN DRYDEN & SON, Brooklin, Ont.
Stations: Brooklin, G.T.R. Myrtle, C.P.R. Long-distance telephone.

Queenston Heights SHORTHORNS

Special offer now: Several choice Scotch bulls, two of which are show bulls, a roan yearling and a red two-year-old by Derby (imp.) =32059=. Their dam is Bessie's Maid =47779=, by the great sire Royal Prince =26062=. There is no better breeding. Also some young cows and heifers at low prices for prompt sale.

HUDSON USHER, Queenston, Ont.

GEORGE D. FLETCHER, Breeder of Scotch Shorthorn Cattle and Yorkshire Pigs.

Our herd of the most noted Scotch families is headed by the \$2,000 Duthie-bred bull, Joy of Morning (imp.) =32070=, winner of 1st prize at Dominion Exhibition, Toronto. A few very choice young bulls from 4 to 9 months old, also females for sale. In Yorkshires are a choice lot of either sex, 7 months old, from imp. sire and dam. Sows bred to imp. hog if desired.

BINKHAM P. O., ONT. ERIN STATION AND TEL.

JOHN LEE & SONS, Highgate, Ont.

SHORTHORNS & LINCOLNS

The champion herd of Elgin, Kent and Essex counties.

For Sale: 6 choice young bulls, 3 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

Six Red Shorthorn Bulls

12 to 15 months old, got by Proud Gift =50077= (imp.); also cows and heifers, imported and home-bred. Inspection solicited. We think we have as good Shorthorn cattle as we have Lincoln sheep. 14 firsts out of a possible 19, our record at Chicago, 1906.

J. T. GIBSON, Denfield, Ont.

Shorthorns and Clydesdales

I am now offering 6 young bulls from 8 to 20 months old, all Scotch bred, two of them from extra good milking families, and a few registered fillies of good quality.

JOHN MILLER, Brougham, Ont.
Claremont Sta., C.P.R.; Pickering, G.T.R.

Pure Scotch Shorthorns

WE ARE OFFERING FOR SALE IMP. SCOTTISH PRIDE =36106=.

3 bulls just two years old. 6 bulls one year old 7 bull calves from 8 to 12 months. (12 of these bulls are from imp. cows.) Choice females of all ages; 100 to choose from. 2 Imp. Yorkshire sows due to farrow in March. 10 young sows 5 months old. Write for catalogue and prices. Our farms are only one-half and one and one-half miles from Burlington Junction, G. T. R. Long-distance telephone in residence.

W. G. Pettit & Sons, Freeman, Ont.

HOLLYMOUNT SHORTHORN:

Pure Scotch, Imported, and the get of imp. stock.

25 HEAD

Anything for sale, young bulls, Breeding gilt-edged and unmarred. A few heifers. Prices right.

W. J. Thompson, Mitchell P. O. & Sta

Glover Lea Stock Farm SCOTCH SHORTHORNS

Superior breeding and individual excellence For sale: Bulls and heifers—reds and roans, some from imp. sire and dam. Visitors met at Ripley station, G. T. R.

R. H. REID, PINE RIVER, ONTARIO.

STRUAN SHORTHORNS

For sale: Choice young bulls from four to ten months old, sired by Scottish Beau (imp.) (36099); also cows and heifers of different ages. Write for prices, or come and see my herd.

Arnprior, N. B. ROBERTSON, Ontario

12 SHORTHORN BULLS FOR SALE from 10 months to 2 1/2 years old. Several of their dams are champions winners in Toronto. Prices very moderate. J. & W. RUSSELL, Richmond Hill, Ont.

QUESTIONS AND ANSWERS. Veterinary.

KICK.

Filly got kicked on pastern a week ago, and the parts are swollen. M. F.

Ans.—Bathe the parts well three or four times daily with hot water, and after bathing apply the following lotion: Acetate of lead, 1 oz.; tincture of opium, 2 oz.; chloroform, 1 oz.; water to make a pint. After the inflammation has become allayed, if an enlargement or lameness remains, apply a blister, the details for which are frequently given in these columns. V.

BURSAL ENLARGEMENT—VENTRAL HERNIA.

1. Nine-months-old colt is boggy. The hogs disappear on exercise.

2. Cow has had a ventral hernia as large as a peck measure. Is the milk given by this cow in any way affected by the hernia? A. H.

Ans.—1. You do not mention where the enlargements are situated, but I presume the hocks are the seats. In many cases, these disappear spontaneously, while in others they do not. A cure is hastened by blistering, details for which are given in answer to query by G. W., this issue.

2. The hernia cannot be successfully treated now. The milk is not influenced in the slightest degree by it. V.

LUXATION OF PATELLA.

Filly, three years old, when asked to move will occasionally hold hind foot solidly on the ground, and then fetch it up with a jerk and go all right. J. W.

Ans.—The patella (stifle bone) becomes partially dislocated, and deprives her of the use of the limb. When it slips back into place she jerks her leg up smartly. You had better blister the front and inside of each stifle joint. Take 2 drams each, biniodide of mercury and cantharides, and mix with 2 ozs. vaseline. Clip the hair off the parts, tie so that she cannot bite the parts. Rub well daily with the blister for two applications, on the third day wash off and apply sweet oil. Turn in box stall now, and oil every day. Keep her in a box stall untied when in the stable. If necessary repeat the blister in a month, and again if necessary. V.

SPRAIN—WORMS.

1. Mare foaled January 10th, and when she attempted to rise seemed to have partially lost control of right hind leg, and had difficulty in standing for about an hour. About two weeks afterwards the muscles of the croup began to waste away. She rests the leg a great deal, and knuckles over when moving.

2. Last fall, colt had worms and became weak and pot-bellied. Treated for worms, and fed it well, and it got better, feels and looks well, but is still pot-bellied, and passes a few worms. How can the presence of worms be prevented? W. M. L.

Ans.—1. She, in some way, sprained the muscles of the croup during parturition. Allow her to have a long rest, and blister the shrunken muscles once every month. Details for blistering are frequently given in these columns.

2. Take 4 drams each of sulphate of iron, sulphate of copper and tartar emetic. Mix and make into 12 powders. Give the colt a powder every night and morning. After the last powder has been given, give a purgative of six ounces raw linseed oil. The presence of worms cannot be prevented. All you can do is to treat for them when they appear. V.

Lump Jaw

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario.

T. DOUGLAS & SONS STRATHROY, ONT.

Breeders of Shorthorns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion, imp. and home-bred fillies. Write us what you want or come and see our stock. Farm 1 mile north of town.

Huntlywood Shorthorns.

Young bulls for sale. The best lot we ever had, by Imported Cleoly's Pride (78594), out of imported dams. Broad-hocks, Lavenders, Lancasters, etc. Prices reasonable.

W. H. Gibson, Manager, Beaconsfield, Que.

John Gardhouse & Sons, Importers and breeders of Scotch Shorthorn cattle, Shire and Clydesdale horses and Lincoln sheep. Just now we are offering a few extra choice heifers—show stuff among them; also three rare good young bulls, bred from imp. sire and dam. Highfield P. O., Weston station 3 1/2 miles. Telephone.

KENWOOD STOCK FARM. SHORTHORNS.

Headed by (Imp.) Jilt Victor =45187=. Offspring are two bull calves, an 11-months Miss Ramsden, from imp. sire and dam; a 19-months Missie, by Blythesome Ruler, and other bulls; also heifers of choice breeding. A few choice Berkshire pigs just off the sow.

HAINING BROS., Hightate, Ont. Kent Co.

The American Association of Trotting-horse Breeders is now ready to mail printed matter to all who are interested in the breeding and improvement of harness race-horses. Those who desire to keep in touch with the progress of this association should write to Secretary H. K. Devereux, Cleveland, O.

DODD'S KIDNEY PILLS

CURES ALL KIDNEY DISEASES

RHEUMATISM BRIGHT'S DISEASE DIABETES BACKACHE

Discontinued the use of our pills because of imitations. Sold only in best quality.

QUESTIONS AND ANSWERS. Miscellaneous

LOSS OF COW.

A purchases a cow at B's sale, and pays for it. The cow is in A's care for two months, drops a calf in due time, takes sick, and is pronounced by a practical veterinarian to have tuberculosis. If cow is then killed, and it proves to be tuberculosis, could A legally recover price paid for cow?

Ontario. SUBSCRIBER. Ans.—We do not see that A is in a position to maintain an action such as is suggested.

PURCHASE OF MACHINE.

Last fall I gave an agent an order for a machine, and after considering it, I thought I would do without it. I wrote to the makers and asked them to cancel the order. They did not send it, but keep writing to me, asking when I will be ready to take it. In the last letter they say that next fall they will again see me. I want to know if they can make me take it; if an order is binding, there being nothing but an order given?

Ontario. S. M. P. Ans.—We think you are bound by the order you gave, and that the manufacturers may tender you delivery of the machine and compel you to pay for it.

INFERIOR SILAGE IN LOWER THREE FEET.

What is the cause of ensilage spoiling in the bottom of a silo built of stone and cement, four feet below the ground? The silage was placed on the earth floor, and is partly spoiled for three feet from the bottom.

W. M. L. Ans.—In deep silos, a good deal of water and juice settles to the bottom, and seems to account for an inferior quality of feed in the last two or three feet. Prof. Grisdale, of Ottawa, says drainage from the bottom of the silo will prevent this, and others report the same. In a silo under the ground, this would be difficult, or impossible.

PIGS WHEEZING.

Can you give me a cure for young pigs that are wheezing and coughing, but die in good condition? They are on the sow yet. The sow is fed on mixed grain, and kept in a bank-barn stable. Is it safe to use large pigs for pork so affected?

Subscriber. Ans.—This is caused by too liberal feeding of grain, without sufficient exercise. The lungs and heart become clogged with fat, and the blood fails to circulate freely. A basement stable is not a suitable place to keep pigs, unless they are given exercise in the barn-yard daily, and then there is danger of their catching cold coming out of a warm place. The only hope for them is to provide exercise in some way in the sunshine, if possible, feed laxative food, as bran and roots. A little sulphur in their food may help to purify the blood. We do not think there is any danger in making pork of pigs so affected.

SILO: COST AND CAPACITY.

- 1. I wish to have a silo built this summer. About how much lumber would a silo 30 ft. high and 12 ft. diameter take? What would be the cost?
2. How much ensilage would it hold? How many acres of corn would it take to fill it, corn rows 30 inches apart, with good stand of corn?
3. Would a silo of this size feed 10 cows from December 1st to 1st of May, providing chaff and straw were also fed?
4. How deep would I require to put a cement foundation down?
Ans.—1. The kind of lumber used in making stave silo the dimensions you give is inch and a half stuff, six inches wide, and in fourteen and sixteen feet lengths. It ought to be run through a planer, so as to be of even thickness, and smooth inside. It would require 1,700 feet, worth at present prices \$50, or if planed, possibly \$55. Hoops would cost about \$15 for material.
2. About seventy tons, allowing three or four feet for settling. Five acres of good corn would fill it.
3. It is not good policy to feed to each animal more than 40 lbs. of ensilage per day; 70 tons would allow 46 lbs. each per day to 20 cows for five months.
4. It ought to be down two feet around the edge, but inside half of that depth would do. T.

YOU must not look a gift horse in the mouth. If you do you are apt to discover some disappointing features. But what can you expect when you get the horse so cheap? Same argument is applicable to cheap fences. You must not expect them to give best results. Their cost is below normal, and they are sadly lacking in service-giving qualities. Frost is no "gift horse" fence. You pay a little more at first, but that insures twenty years or more of the best fence service. Say you buy a piece of common fencing and pay \$40 for it. It will probably last eight years. The average cost per year is \$5. If "Frost" Fence—the fence which bears an enviable reputation for quality and long wear—was bought, it would cost probably \$50 for the same amount of fence and would give at least 20 years of service. The average cost per year would be about \$2.50—just half that of a cheap fence. The ordinary cheap wire fences are "gift horses" in comparison with the "Frost." The discriminating public will recognize "Frost" Fence as the wisest kind of a fence investment. Our Catalogue will be gladly mailed free on request. Frost Wire Fence Company Limited HAMILTON - - ONTARIO WINNIPEG - - MANITOBA

"Frost" fence

BRAMPTON JERSEYS

Canada's Premier Herd. Strengthened regularly by importations from United States, England and the Island of Jersey. We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from. Write for prices and particulars. Long-distance 'phone at farm. B. H. BULL & SON, Brampton, Ont.

ANNANDALE FINE STOCK FARM TILLSONBURG, ONT.

Premier sire, Prince Posch Calamity, whose dam and sire's dam average in official test 86 lbs. milk in 1 day and 26 lbs. butter in 7 days. No stock for sale at present. GEO. RICE, Tillsonburg, Ont.

SHORT HORNS. Just closed out the season's crop of bulls of breeding age, but have a few very nice young ones coming up. Anyone wishing a stock bull from the noted Derby Imp. send orders ahead, as they are all picked up as soon as ready. W. J. SHEAN & SON, Box 858, Owen Sound, Ontario.

SUNNYSIDE STOCK FARM. For sale: A number of young SHORTHORN BULLS, red and roan, from imported sire and dams; good enough to head pure-bred herds. Apply: JAMES GIBB, Brookdale, Ont.

NEW HOLSTEIN BULLS. Fit for service, for sale at reasonable prices. Choice females, all ages. If you are willing to pay good prices for good stuff, write me. S. W. CLEMONS, St. George, Ont.

A. EDWARD MEYER Box 378, Guelph, Ont. Offers for sale, at prices you can stand, young SHORTHORN BULLS. Four of them from imported sire and dams. Several cows with heifer calves at foot by Imp. Scottish Hero, and a few yearling heifers. All are of the choicest Scotch breeding. Write, or better come and look them over. Long-distance 'phone in house.

Shorthorns—Scotch and milking strains. I have a good Shor horn milking strain as there are in Canada, as so others pure Scotch, and can supply a few bulls of either strain: also a number of heifers from 1 to 3 years of age. They are a good-doing lot of modern type, and will be sold light. Dr. T. S. Sproules, M. P., Markdale P. O. and Sta.

Imperial Holsteins—An Advanced Registry herd for sale. One year-old bull, a Toronto champion, four bulls from 3 to 8 months of age. A. B. on both sides. Imp. dam from the U. S. W. H. Simmons, New Durham P. O. & Sta.

SHORTHORNS & BERKSHIRES. For Sale: Six extra fine young bulls, some belong to grand milking strains. Also a fine lot of young sows, bred to farrow in March and April, and a grand lot of young sows and boars from three to five months old. S. J. PEARSON, SON & CO., MEADOWVALE, ONT. Stations: Streetsville and Meadowvale. C. P. R.

Pine Ridge Jerseys For sale very cheap some choice young bulls, bred in the purple, of ideal type; also a few heifers and heifer calves and some Cotswold shearing rams and ram lambs. Wm. Willis & Son, Newmarket P. O. & Sta.

Holsteins and Yorkshires R. HONEY, Brickett, Ont., offers a very choice lot of young bulls, also boars and sows fit to mate.

Wm. Grainger & Son. Hawthorn herd of deep-milking Shorthorns. Aberdeen Hero (imp.) at head of herd. Eight grand young bulls, also females, all ages. Prices reasonable. Lonsdale Station and P. O.

HIGH GROVE JERSEYS AND YORKSHIRES. For sale cheap, several choice young bulls and a few heifers, some of them prizewinners at Toronto this fall; bred from the best. Twenty young sows just ready to breed. Prices, extended pedigrees, and all information for the asking. ROBT. TUFTS & SON, Tweed P. O. and Sta.

Greenwood Holsteins and Yorkshires For sale: A few richly-bred bulls from one to eighteen months old. Also a few choice females of all ages. Yorkshires of either sex. D. Jones, Jr., Caledonia P. O. and Sta.

SHORTHORNS & OXFORD DOWNS. Herds headed by Protector, Imp., Vol. 59 E. For sale: Bulls from six to twenty months—three from imported dams and imported sires. Also females in calf. Also eleven registered Oxford Down ewe lambs. All at reasonable prices. John McFarlane & W. H. Ford, Dutton, Ont., Elgin Co. M. C. R. and P. M. Railways. Long-distance 'phone.

HOLSTEINS FOR SALE. Four imported and one home bred bulls from 8 to 18 months old; also our entire crop of spring bull calves from weaned old up. bred by the grandly-bred imp. bull, Sir Howley B. Fiebert, whose dam record is over 80 lbs. milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers, from one year up; 75 head to select from. Cheese 1lb. Don't delay if you want one from this herd. H. E. GEORGE, Crampton, Ont.

Grove Hill Holsteins Herd consists of fifty-four head, containing blood of De Kol, Pieterje Korndyke, Keyes, Inka, and other families of good testing qualities. Young stock of both sexes for sale at present in limited quantities. Write for prices. F. R. Mallory, Frankford P. O. and Sta. Trenton station, G. T. R.

Shor horns for Sale—Herd bull, Prince of Banff (imp.) = 45212 =, and three young bulls 12 months old; also a few heifers and young cows with calves at foot. Prices reasonable. Correspondence solicited. D. HILL, Staffa P. O., Ont.

Evergreen Farm Holsteins is headed by DeKol, which we are offering for sale; sire of 10 daughters in Record of Merit; also a choice lot of young bulls fit for service, from Record of Merit cows with large records. F. C. PETTIT & SON, Burgessville Ont.

"THE MAPLES" HOLSTEIN HERD is made up of Record of Merit cows and heifers with large records, and headed by Lord Wayne Westhills Calamity. Bull calves from one to five months old for sale. Walburn Rivers, Folden's, Ont.

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Burnside Ayrshires

Imported and Canadian-bred. Prizewinners at all the leading shows. I hold the award of merit given by the Bd. of Dir. of World's Fair, St. Louis, to the breeder of largest number of prizewinning Ayrshires at said Exposition. Females of all ages for sale, imported and Canadian-bred.

R. R. NESS, JR., HOWICK, QUE., P.O. AND STATION.

MY SHROPSHIRE WON THE FLOCK PRIZE AT TORONTO

And I have imported and home-bred **RAMS** and **EWES** for sale that are of the same stamp. All kinds of good **COTSWOLDS** and **SHORTHORNS** as well. Prices always reasonable.

Robert Miller, Stouffville, Ontario.

RECORD OF MERIT HOLSTEINS

Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richest bred bulls in Canada at head of the herd. For sale: 18 bulls, from 2 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

P. D. BBE, Oxford Centre P.O., Woodstock Station.

Ridgedale Farm Holsteins

Present offering: One yearling bull, also six bull calves, from one to four months old, sired by Prince Pauline De Kol 6th and from rich, heavy milking dam. Come and see them or write for prices. Shipping stations: Port Perry, G.T.R., or Myrtle, C.P.R., Ontario Co. **R. W. WALKER, Utica P.O., Ont.**

Glenwood Stock Farm Yorkshires

Holsteins and Tamworths—Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. **R. O. MORROW & SON, Milton, Ont., Brighton Tel. and Str.**

HILTON STOCK FARM—Holsteins, Cotswolds and Tamworths

Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. **R. O. MORROW & SON, Milton, Ont., Brighton Tel. and Str.**

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won more prizes in 1906 than all other competitors combined. Young stock of either sex for sale.

H. G. HAMIL, Islay P. O., Ont., Fenelon Falls or Lorneville Stn.

Glenhurst Ayrshires

Old established herd in Ontario. Imp. and Canadian-bred. Average B. F. test for the whole herd, 42; milk yield, 40 to 60 lbs. a day. For sale: females of all ages, and several young bulls; all by Imp. sire and some out of Imp. dams. **James Benning, Williamstown P. O., Lancaster Sta.**

Ayrshire Bulls

Two very choice, nearly 18 months old, and from dam that gave last year more than enough to qualify for "Record of Performance." **W. W. BALLARTYNE, Stratford, Ont., Long-distance phone.**

SPRINGBROOK AYRSHIRES

gave an average of 7,000 lbs. of milk, testing 2.9 per cent. butter-fat in 1905. A few bull calves for sale. Prices quoted for females. **W. F. STEPHEN, Box 163, Huntingdon, Que.**

Springhill Ayrshires.

Over 25 heifers from 6 months to 3 years of age. Nearly all of them imported, the balance bred from imported stock. A high-class lot of show stuff. A few older ones imported and Canadian bred. Three bull calves, 1 of them imported in dam, the others bred from imported Cross of Knockdon. Anything in the herd is for sale.

Robt. Hunter & Sons, Maxville, Ont.

Ayrshires 3 prizewinning bulls fit for service at reasonable prices also younger ones for quick buyers.

N. DYMENT, Hickory Hill Stock Farm, Dundas Stn. and Tel. Clappison, Ont.

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Secretary of the National Sheep Breeders' Association.

Secretary of the Kent or Romney Marsh Sheep Breeders' Association and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

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Cables—Sheepcote, London.

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Canadian Agents for the Original **McDougall's Sheep Dip & Cattle Dressing** Imported from Scotland. Price: Imperial pints, 35c; Imperial gallon, \$1.25; Imperial gallon, \$2.25. Supply in bulk or charges prepaid on order. Write to **WORTHINGTON DRUG CO., Toronto, Ontario.**

I am offering for sale my entire flock of pure-bred **DOWN SHEEP.** Consisting of 100 head to a pure-bred also 7 sheeps of mixed condition. Prices right. **G. H. WALKER, Cedar Lodge, Ont.**

QUESTIONS AND ANSWERS. Miscellaneous

CEMENT CISTERN.

1. Kindly inform me how best to build a cistern at the end of a bank barn. Should there be a stone wall built, and plastered inside with cement? If so, is mortar made by mixing cement and sand any better than lime and sand for building the stone wall? Would a concrete wall, plastered inside, be any better? I have plenty of stones, but would have to draw gravel about six miles.

2. Where is the Clipper fanning mill made? **W. E. E.**

Ans.—1. In your case, we think nothing better could be done than to build a stone wall inside, using ordinary lime mortar, and plaster heavily with cement mortar. Small, egg-shaped cisterns are often successfully plastered with cement directly on the clay.

2. We do not know. The manufacturers should advertise it. **T.**

ALFALFA OR LUCERNE.

On page 376, in your issue of 28th February, last, Reader in his question 3 refers to lucerne. Answering his query, the term alfalfa is used twice. On consulting Chambers' directory, printed in Edinburgh, I cannot find such a word as alfalfa, but lucerne presents itself without trouble. Why, then, may I ask, use a term or word not in our vocabulary? I love to call a spade a spade.

P. S.—Professor Hutt uses the name lucerne; I fancy he is correct.

D. MESSENGER.

Ans.—Alfalfa and lucerne are two names for the same thing. The former is probably Arabic in origin, while "lucerne" is supposed to have been given the plant from the canton lucerne in Switzerland. Previous to the introduction of the plant from Chili into California, about the middle of the last century, it was known among us as lucerne, but the name alfalfa has followed the crop into Spain and South America, thence into United States and Canada, and now it seems likely to supplant the French name entirely. The majority of agriculturists to-day have adopted the name alfalfa, and for this reason we prefer that out correspondents use this term henceforth.

DEVISE OF A FARM.

A willed his farm to his son B, B to pay an annuity to his mother, and certain shares to A's other children. One provision of will is B is not to sell farm or any part thereof during the life of his mother.

1. Can B be stopped cutting timber and selling it? The removal of said timber would lower value of farm, and in case land fell in value by the time the shares were to be paid (on death of mother), the other heirs would not get the full amount of their claims; that is, if B wished to act dishonestly.

2. Whose place would it be to act to prevent B selling timber, the heirs or executors?

3. If executors do not try to prevent B selling timber, will they be responsible for any deficiency if farm does not bring enough to pay shares in full?

4. B is working farm. To whom should he pay annuity, to mother or executors?

5. Should not B pay all moneys to the executors that the will calls for while mother is living, and then they pay all claims as they become due? **Ontario.**

A READER.

Ans.—1. Timber being legally regarded as part of the land, it would, in strictness, be contrary to the provision in the will against sale of any part of the farm during the mother's lifetime for B to sell any of the timber. But it is the real intention of the testator that is to govern, and such intention is to be gathered from a careful reading and consideration of the whole will. It is quite possible that upon such a perusal of the document it would appear that A had no intention to prohibit B from cutting and selling timber, but had in mind only the acreage of the farm, and the idea that during the mother's life there should be no sale of same, or of any parcel of it.

2. It would be for those beneficially interested; that is to say, the mother and the other children, to take the necessary legal steps.

3. No.

4. and 5. B should pay the annuity to his mother direct.

MOTHER'S GRATITUDE TO ZAM-BUK.

IT CURED HER BOY OF PAINFUL SORES.

Nothing is more unpleasant to the eye and more painful to the sufferer than boils and ulcers. At this period of the year many adults suffer acutely from these painful outbreaks. When boils, ulcers, etc., occur on children, it is pitiful to see the little ones suffer.

Mrs. E. Holmes, of 30 Guise St., Hamilton, is grateful for what Zam-Buk did for her little boy when in this pitiful plight. She says: "He suffered from spring eruptions, and then boils broke out on his neck. I tried blood-purifying remedies, but nothing seemed to do him the desired good. The boils got worse, and I could not send him to school. We tried a sample of Zam-Buk and it did him a little good, so I bought a 50-cent box. The result was really amazing. Inside a week's time, the boils had begun to dry up, and in a very short time indeed every one of them was healed."

Zam-Buk is a sure cure also for eczema, scalp sores, ringworm, poisoned wounds, chronic ulcers, chapped hands, cuts, cold sores, cracks, festering sores, eruptions and pustules due to blood poison, etc. It stops bleeding and cures piles, fistula, etc. Is antiseptic, an excellent "first aid." Every home and farmstead should have its box of Zam-Buk. All druggists and stores at 50 cents a box, or from Zam-Buk Co., Toronto, for price. 6 boxes for \$2.50. Send 1c. stamp for trial box.

Ship Your **HIDES SHEEPSKINS FURS** To **E. T. CARTER & CO., TORONTO.**

SOUTH DOWNS AND **Scotch Collies.** **Robt. McEwen, Byron, Ont.** Long-distance Phone.

Cedar Lodge Yorkshires

100 head brood sows (imp.) and the product of imp. stock, weighing from 500 to 800 lbs. each. Stock hogs by imp. sires and dams, very large and full of quality. Young stock of both sexes constantly on hand for sale. Pairs not skin. Satisfaction guaranteed.

P. O. COLLINS, Bowesville P.O., Ont. Manotick Sta., C.P.R.

Maplehurst Herd of Tamworth Swine, Bronze Turkeys, Toulouse Geese, Pekin Ducks, S.-C. W. Leghorns.

For sale: A large herd of Tamworths, of excellent breeding and ideal bacon type. This herd won sweepstakes at Toronto and London, 1905-6. Among our winnings at World's Fair, St. Louis, 1904, both premier championships, sweepstakes aged and junior herd, and two grand championships. Inspection and correspondence solicited. For further particulars apply to

D. DOUGLAS & SONS, Mitchell, Ont.

ORCHARD HOME TAMWORTHS

Herd headed by Newcastle Warrior. This hog won first prize and silver medal at Toronto, 1905, and defeated his sire, Colwill's Choice (1343), who has won these honors three years in succession. Our brood sows are large and of the same high quality. If you want choice stock, we can satisfy you at a reasonable price. Young boars fit for service; also young pigs now on hand. All stock shipped in comfortable crates. Express prepaid and satisfaction guaranteed.

GRANDALL BROS., Cherry Valley, Ont.

Newcastle Herd of Tamworths and Sherborns. We have for quick sale a choice lot of boars and sows from 2 to 6 months old, the produce of sows sired by Colwill's Choice and Newcastle Warrior, both our own breeding, and winners of sweepstakes and silver medals at Toronto, 1901-02-03-05. Several very choice sows due to farrow in March and April. Pedigree furnished with every pig. Several choice heifer calves and heifers in calf to our present stock bull. All of high show quality. Prices right. Daily mail at our door. **COLWILL BROS., Newcastle, Ont.**

MOUNT PLEASANT TAMWORTHS and HOLSTEINS. For sale: An extra choice lot of pigs of either sex, from one to six months old, and two sows bred to farrow in March. They are nearly all sired by Colwill's Choice No. 1343; won sweepstakes and silver medal at Toronto in 1901-2-3. Also four bulls and one heifer from one to ten months old. In residence. **BERTAM HOSKIN, The Gully P. O.**

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Even Until Old Age You May Feel the Vigor of Youth, with its Light Heart, Elastic Step, Courage and Tireless Energy. You May be Free From Pains and Defy Your Years.



Varicocele, Spermatorrhœa, Losses and Drains and all ailments which destroy Manhood's Vigor are cured by Dr. McLaughlin's Electric Belt.

FREE ELECTRIC SUSPENSORY FOR WEAK MEN.

Sends the Current to the Prostate Gland, the Seat of All Weakness. It Develops and Expands Weak Organs and Checks Losses. No Case of Weakness Can Resist it. **FREE WITH BELTS FOR WEAK MEN.**

No man should be weak, no man should suffer the loss of that vital element which renders life worth living. No man should allow himself to become less a man than nature intended him; no man should suffer for the mistakes of his youth, when there is at hand a certain cure for his weakness.

Most of the pains, most of the weakness of stomach, heart, brain and nerves from which men suffer, are due to an early loss of nature's reserve power through mistakes of youth. You need not suffer for this. You can be restored. The very element which you have lost you can get back, and you may be as happy as any man that lives.

Easy to Wear. Cures While You Sleep. Never Fails.

Cures, Nervous and Vital Weakness, Enlarged and Inflamed Prostate Gland, Lost Memory, Loss of Strength, Weak Back and Kidney Trouble, Rheumatic Pains in Back, Hips, Shoulders and Chest, Lumbago, Sciatica, Torpid Liver, Indigestion and Dyspepsia.

My success is not limited to any particular trouble, any organ of the body, or any part that lacks the necessary vitality to perform its natural function, can be restored by my method. It gives life to all weak parts, strengthens the kidneys so as to enable them to filter all the impurities that are in the blood. By a few applications the fluid of life circulates through the entire system, rich and red and warm.

One of the world's greatest scientists, whom all the New York papers eulogize as the man of the hour, in a series of lectures at all the great institutes gives his experience in delving into the mystery which surrounds the organ of life. He explains the vital processes, and after ten years of close study arrives at the definite conclusion that demonstration of life and action in every living thing is due to electricity. Now what this great man claims is the same as I have been preaching to the public for the last twenty years. I did not discover it, it has been my belief, and I can cite you thousands of cases of men from seventy-five to ninety who have returned to the hard labor of their youth with a vim, after having worn my appliance for three months.

"I have used your Electric Belt for losses at night, and have experienced most satisfactory results. It has built up my constitution in every way. My stomach was bad, but it bothers me no more, I eat well, and my digestion is perfect. I feel truly thankful for the benefits received, and do not hesitate to endorse your remedy for such troubles as I had."—WM. A. ARMSTRONG, 411 Magdalen Street, Point St. Charles, Montreal, Que.

"I am pleased to be able to tell you that I have derived great benefit from your Electric Belt. When I started to wear it I was very much run down and felt weak, but after using it for three months I must say that I feel perfectly restored to my usual health and vitality. Thanking you for the great benefit received from your treatment."—R. L. HARRIS, Trenton, Ont.

"Your Belt cured me of rheumatism and sore back a year and a half ago, and I have had no reason to put it on again. You know how I did. I was before I got it; I had such a soreness across loins and kidneys I could not turn in bed without catching hold of something. The first night I had it on—it was a little better, and I used it as directed by you. This, I think, is part of the cure. I do not state these lines as a person who does not know what he is talking about. I am not built that way."—ROBT. CAMERON, Port Hood, C.B., N.S., P.O. Box No. 98.

Dr. McLaughlin,—Dear Sir: It gives me great pleasure to tell you that the Electric Belt I purchased from you some time ago did my wife a world of good; in fact, I am satisfied that it saved her life. It is very seldom that she wears it now, only occasionally when she feels weak and run-down. — JAMES BRINDLE, Lamerton, Alta.

Dr. McLaughlin,—Dear Sir: I am fully satisfied with my Belt; it is a good cure. I am stronger in every way, and I thank you very much for your Belt. It is well worth the money I gave for it. Yours truly, WM. J. PEARSON, Fleming, Sask.

I don't want your money if I can't cure you; I don't want any man to buy my Belt on speculation; I take all the chances. I can cite you cases right in our city where men have spent thousands of dollars, and they will tell you that I have given them more relief in one night's use of my Belt than all the drugs they had ever taken. I am not advertising that I give my Belt away. I am willing to cure you before you pay me. All I ask is that you give me reasonable security. You may then use the Belt at my risk and

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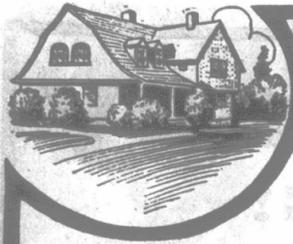
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Woodstock Herd of Large English Berkshires

I have for sale pigs of all ages, both sexes, from prizewinning stock. I am booking orders for spring delivery from my Imp. and home-bred sows. Come and see or write for prices. My herd was in the front rank of prizewinners at the leading exhibitions this fall.

O. P. R. and G. T. R. Stations. DOUGLAS THOMSON, Box 1, Woodstock, Ont.

Rosebank Berkshires.

Present offering: Boars fit for service. Sows ready to breed. Choice young stock ready to wean, sired by Maple Lodge Doctor and Sallie's Bambo (Imp.), a Toronto winner.

Lafroy, G. T. R. JOHN BOYES, JR., Churchill, Ont. Long-distance Phone

HILLCREST BERKSHIRES

Stand unrivalled for individual merit in the herd. Our business for 1906 surpasses former years. The enquiry for choice things increases from year to year. B me choice sows for sale due to farrow in the spring. Also a few boars on hand. Vine Sta. G. T. R. near Barrie. JOHN LAHMER Vine P. O.

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Motto: "Good as Represented."
Mail orders receive careful attention.
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Largest Berkshire herd in Ontario. Stock boars and several brood sows imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prizewinning lines and true to type. Everything guaranteed as represented.

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We have a limited number of choice young pigs for sale, bred from our choicest sows, and got by the imported boars, Delmon's Joe 13577 and Broomhouse Beau 14514. Pigs from the latter won all the first prizes at the Ottawa Fair Stock Show last March for the best dressed carcasses and sweepstakes over all breeds or grades. We guarantee satisfaction in all mail orders. Joseph Featherston & Son, Streetsville, Ont.

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Are strictly high-class. Toronto winners. Of all ages. Young stock of both sexes for sale. Pairs supplied not akin.

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The largest herd of bacon-type Chester White hogs in Canada. Strictly high-class have won highest awards. Young stock of both sexes always on hand. Satisfaction guaranteed.

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For Sale—Ohio Improved Chester Whites, the largest strain, oldest established reg. istered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigrees and safe delivery guaranteed. Address: E. D. GEORGE, Putnam, Ont.

Maple Lodge Berkshires—A number of nice thrifty Berkshire sows, bred and ready to breed. Young stock on hand of both sexes. Stock registered and crated f.o.b. Prices reasonable. JOSEPH NAUMAN, Fisherville, Ont. Nelles' Corners Sta., G. T. R.



Large White Yorkshires.

A number of excellent sows, direct from imported stock, in pig to Worcester Duke, Imp.; also imported sows of different ages. Young boars and sows can be supplied not akin. Orders taken for young pigs. Write for what you want.

H. J. DAVIS, Woodstock, Ont. Importer and Breeder of Yorkshires and Shorthorns.

SUNNYMOUNT BERKSHIRES.

Sunnymount Berkshire are unsurpassed for ideal bacon type and superior breeding. For immediate sale: A few choice boars from 5 mos. up to 15 mos. old.

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Fairview Berkshires

Bred from imported and Canadian-bred sires and dams, and bred on prize winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boar.

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IMPROVED YORKSHIRES

Choice young stock from imported prizewinning stock for sale.

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Duroc Jerseys—Imported and home-bred sows and boars ready for service. Pigs fit to wean. Buff Orpingtons and Buff Leghorns.

MAC CAMPBELL, Guelph, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

ARRANGING FOR FISH-SLIDE.

How should I proceed to compel a mill-owner to insert a fish-slide in a dam over a stream? SPORT.

Ontario.

Ans.—Lay the matter before the Fish Inspector of your locality.

HENS EATING EGGS.

Give a preventive for hens eating eggs. We have about twenty-one hens, all of which will eat them when they get a chance. I. P.

Ans.—Prevention is better than cure. It is hard to break a hen away from the habit when she has once acquired it. Much may be done, however, by using dark nests in which the hens cannot scratch. Place the row of nests in the darkest part of the pen, but instead of having them open to the pen, have a six-inch walk between wall and nests, the hens thus entering the nests from the back, while the eggs are gathered by trap-doors in the front. The nests should be roomy enough to leave no danger of crushing the eggs. If too dark, an auger hole in the trap will admit sufficient light. Lack of lime often induces the egg-eating habit, but the most common cause is the taste of an egg accidentally broken.

EGG-EATING HENS—SQUEALING FIG.

1. I have about 25 hens. They lay 6 or 7 eggs daily. I feed them well—about three quarts of wheat daily and lots of grit, also other feed suitable to fowls. As soon as one lays an egg, they all run and eat the eggs; they even leave their wheat and go for the eggs.

2. Have a pig that refuses to eat any feed, even corn or pea meal; it contains no bitter seeds, still she refuses, and stands and squeals for something to eat.

A SUBSCRIBER.

Ans.—1. See answer to I. P. in this issue.

2. She may have indigestion. Withhold all feed, except a little skim milk and middlings. Give her a few sugar beets, mangels or boiled potatoes, and a mixture of salt, ashes and charcoal in a box in her pen. Keep dry and comfortable. If she comes to her feed, increase her ration cautiously, never giving her more than she will clean up from her trough in ten minutes.

ALFALFA AND ARTICHOKE.

I have a piece of land, about three acres, quite hilly, high, dry, clay loam. I have been thinking of fitting it for a hog pasture. I intend summer-fallowing the coming summer, then seed to lucerne, and reserving a portion to be planted with artichokes for autumn foraging. Would this be a wise method to adopt? Does lucerne make good hog pasture? Does it thrive well on land such as described? What time of year should it be sown? Should it be sown on the open ground alone, or with a nurse crop? How much seed should be used on one acre? Please give full particulars, with regard to artichokes: (1) How and when to plant; (2) proper method of cultivating; (3) how much ground would be required to feed 20 hogs for a month?

T. W. P.

Ans.—1. The land described should prove excellent for alfalfa. There is no reason why a crop of corn, roots or potatoes should not be grown on the field this year. If properly cultivated, the land will be quite as well cleaned as by fallowing, and should be left rich enough too. Sow medium early in spring, on a well-prepared seed-bed, using 20 to 25 pounds good seed per acre. Our own preference is to sow without a nurse crop. It is safe to say alfalfa is the best and most profitable hog pasture known.

2. Plant the tubers of Jerusalem artichokes, one to two feet spaced, in rows three or four feet apart. In planting, cut the same as potatoes, one eye to a piece being considered sufficient. Plant as you would potatoes, and cover about two inches deep. Plant as early as possible. We should think that half an acre should be sufficient to keep 20 hogs pretty busy for a month. A lengthy article was devoted to this subject in "The Farmer's Advocate" for Feb. 21.



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