

**PAGES  
MISSING**

## Cheap Excursions to the West.

Our Special Land-Seekers' Excursions will leave Ontario and Eastern points on the following dates:

**APRIL 14th and 28th,  
MAY 12th and 26th,  
JUNE 9th and 23rd,  
JULY 7th and 21st,  
AUGUST 4th and 18th,  
SEPTEMBER 1st, 15th  
and 29th.**

Fare as follows:

# \$40.50 RETURN

To Calgary, from any point on the C. P. R. east of Sudbury, in Ontario, Quebec or New Brunswick. Excursionists from the Maritime Provinces will congregate at St. John.

Intending purchasers of Western lands are invited to join our excursions. Applications for passage must be received at least two days before date advertised—earlier if possible.

Write for list of our lands and our terms, which are the best heretofore offered in Canada by a reliable Company. An industrious, capable man **MUST SUCCEED** if he buys land from this Company.

**The Land Department, Union Trust Company, Ltd.,  
174 Bay St., Toronto, Ont.**

U S U S U S U

## THE 1908 IMPROVEMENTS

KEEP THE

# U.S. CREAM SEPARATOR

Far in Advance of all Competitors.

Combines the thousand and one recognized superior features (over all other makes) with new and marked improvements in construction, which make the handling of milk still easier, quicker and more profitable. Since tests with the leading makes of separators of the world have proven the U. S. to

**Hold World's Record for Clean Skimming** for fifty consecutive runs, what more is necessary to prove to the doubtful purchaser on what machine to decide?

Write to-day for "Catalogue No. 110" and any desired particulars

**VERMONT FARM MACHINE CO.**  
Bellows Falls, Vt.

Distributing warehouses at: Chicago, Ill., La Crosse, Wis., Minneapolis, Minn., Kansas City, Mo., Omaha, Neb., Toledo, O., Salt Lake City, Utah, Denver, Colo., San Francisco, Cal., Spokane, Wash., Portland, Ore., Buffalo, N.Y., Auburn, Me., Montreal and Sherbrooke, Quebec, Winnipeg, Man., Hamilton, Ont., Calgary, Alta.





**Baby Rambler.**  
Ever-blooming Crimson Dwarf. Think of roses every day from June until frost out of season.

## Fruit and Ornamental Trees, Roses, Shrubs, Evergreens, Small Fruit Plants, etc.

Thousands of our Free Priced catalogues are looking for your orders. Have we booked yours yet? We are more than busy. Better hurry up while we are in good assortment. We never were in better position to supply you with apple, pear, plum and cherry trees. We ship direct from the nurseries. Fresh dug and O.K. Choice seed potatoes, etc.

The Central Nurseries. **A. G. HULL & SON, St. Catharines, Ontario.**

MENTION THIS PAPER.

## SIMPLICITY, DURABILITY, RELIABILITY

ARE CHARACTERISTIC OF THE

# Fairbanks - Morse GASOLINE ENGINE

They do not require a high order of mechanical skill to operate, and will work when you want them to. Thoroughly constructed, they will give satisfaction to every user, and there are now over 70,000 satisfied users. Write to-day in coupon below for catalogue and copies of testimonials.

**MADE IN CANADA.**

## The Canadian Fairbanks Co., Ltd.

MONTREAL, TORONTO, ST. JOHN, WINNIPEG, CALGARY, VANCOUVER.

The Canadian Fairbanks Co., Ltd., 444 St. James St., Montreal, QUE.

Please send catalogue and copies of testimonials.

Name .....

Address .....



On common fences the continuous wire stays are sure to bend and the locks to lose their grip under continual pressure of your horses or cattle. And once they do, the top wire, soon followed by those below, will sag and destroy the efficiency of your fence.

Nothing like that can happen to our Dillon Hinge-Stay Fence. The short, stiff hard steel wire in our hinge-stays cannot bend when the lateral wires are weighted down, owing to their being so short and jointed at each strand wire.

Pressure of a horse on the top wire brings the "hinges" in the stays into action and prevents them from bending, and when pressure is relieved the fence springs back into place again.

The lateral wires are High-Carbon Hard Steel and coiled to provide for expansion and contraction by heat and cold, and are also crimped at the intersection of the stays and strands to prevent the stays from slipping sideways—therefore no locks are needed.

Buy the Dillon Hinge-Stay Fence. It's "twice as strong." Twice as good an investment. Catalogue free.

The Owen Sound Wire Fence Co., Limited, Owen Sound, Ont.

# DILLON HINGE-STAY FENCE



J. E. Johnson, of Simcoe, delights in the style Spramotors shown in the cut. Note the Duplex Spramotor is operated from top of derrick. Mr. Johnson has used over 50 Spramotors, in 4 kinds—horse-power, duplex, hand and knapsack.

Get particulars.

**SPRAMOTOR,**  
LIMITED,

1061 King St., London

PLEASE MENTION THIS PAPER.

## YOUR MOVE

At first Dairy men had a right to say "show me"

900,000

# De Laval Cream Separators

In use since then is a tremendous popular vote in favor of the fact that

**DE LAVAL CREAM SEPARATORS ARE BEST**

Write for printed matter

The De Laval Separator Co.

173-177 William Street

MONTREAL

# "Leader" Fence

Has the **Double Grip Lock**

Don't buy wire fence until you've seen our new woven fence which is so vastly superior that we have appropriately named it the Leader. It is a hard steel wire fence, heavily galvanized—both laterals and stays No. 9.

But the "Leader" Lock—that is the really great improvement. It has the double grip—makes twice as strong a binding—twice as strong and durable a fence. Of course, it takes more wire, but it makes a fence so much better that it will be that much easier to sell. Will give such genuine satisfaction that we are certain of repeat orders from all purchasers.

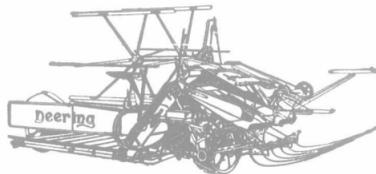
**Will You Sell "Leader" Fence For Us**

in your locality? Also act as our representative for our complete line of farm and ornamental fence and gates? Write to-day for our money-making proposition.

**Frame & Hay Fence Co., Ltd., Stratford, Canada**

## THE DEERING

for  
**GRAIN CUTTING  
WITHOUT  
INTERRUPTIONS**



WHEN the grain is ripe you want the work of harvesting to go right along. You cannot afford to be annoyed by breakages and delays.

Breakages and tinkering with the knoter or other parts to get them to work right means more than vexatious delays. It means expense and it may mean that you will not get your grain harvested in good condition.

The Deering binder comes nearer giving you insurance of uninterrupted work than any machine you can buy.

What can be more satisfactory to the grain grower at the beginning of harvest than to have a machine he knows he can depend upon?

The Deering binder is such a machine. It has stood the test in thousands of harvest fields.

It is not only dependable and

CANADIAN BRANCHES: Calgary, Alta., Hamilton, Ont., London, Ont., Montreal, P. Q., Ottawa, Ont., Regina, Sask., St. John, N. B., Winnipeg, Man.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.  
(Incorporated)

right working but it harvests all the grain. It handles tall and short, light and heavy, down and tangled grain all to a nicety and with least possible loss. Machines are made in 5, 6, 7 and 8-foot cuts. In addition to grain harvesting machines the Deering line includes binder twine, mowers, tedders, sweep rakes, side delivery rakes, hay loaders, stackers, corn machines and knife grinders. 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, feed grinders, wagons, sleighs, and manure spreaders.

For all particulars call on the local Deering agent or write to any of the following branch houses for catalog:

THIS IS THE SHEET METAL AGE

All that is necessary to make a factory, warehouse, barn, shed or outbuilding of any description, wind, water, fire and lightning proof is to cover it with

# Galt Corrugated Sheets

Made of the finest corrugating iron procurable; they will give at least fifty years satisfactory service.

Corrugations are not rolled; after the usual method. They are pressed, one corrugation at a time. This assures perfect uniformity—an accurate fit at both side and end laps.

Where warmth is a secondary consideration to fire, lightning and storm proof qualities; three-fourths of the wood sheathing may be saved, besides the lessened cost of the lighter frame which can be used.

Saving on lumber and labor brings cost of a building protected with Galt Corrugated Galvanized Sheets as low as if built entirely of wood. Galvanized or painted, whichever you prefer. Our Catalogue with complete information free on request.

**The Galt Art Metal Co. LIMITED**  
GALT, ONTARIO

45 INCH.

9"  
8"  
7"  
6"  
5 1/2"  
5"  
4 1/2"

### "AMERICAN" WOVEN WIRE FENCE

On the Railroads as well as on the Farms.

"American Hinge Joint" all No. 9 Hard Steel Wire Fence is the Canadian standard. More miles of it are used on farms than of all other makes combined.

THE GRAND TRUNK PACIFIC use it exclusively on their line between Winnipeg and Edmonton.

Quality and fair prices go together in "American" Fence. See the agent near you, or write us direct.

**The Canadian Steel and Wire Co., Limited,**  
Hamilton, Ontario.

**Wanted—Brakemen and Firemen** Salary—\$75 to \$150 a month.

We teach and qualify you by mail. Course simple, practical and thorough. After eight or ten weeks' study we guarantee to assist in getting you a position on any railway in Canada. The first step is writing for our booklet.

**THE DOMINION RAILWAY CORRESPONDENCE SCHOOL.**  
Dept. F, Winnipeg, Manitoba.

# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established  
1868.

Vol. XLIII.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1876.

LONDON, ONTARIO, APRIL 16, 1908.

No. 812.

### EDITORIAL.

#### THE JUNGLE INSTINCT MUST BE CONTROLLED.

In the nature of man persists in varying degree the spirit of the jungle—the disposition of might to override weakness. The tendency to despotism and tyranny lurks within us, awaiting only a chance to display itself. Few men may be entrusted with the upper hand, without grave danger of their abusing it. This applies alike to the aristocrat, the plutocrat, the college sophomore, or the boss of the river gang; likewise to the peasant, the laborer, the college freshman, or the butt of the camp. The jungle instinct is latent within them, and flames out when the curb is removed and authority, especially new-found authority, or power is given them.

Taking them one with another, automobilists are probably no more villainous than other elements of the community. The difference is that an engine of destruction is under their control. Power lies in their hands, and the temptation to abuse it is great. The jungle instinct is insidious and strong. It was the same with the bicyclist once, only he was unable to monopolize the highway without considerable risk to himself, whereas the ponderous motor car may rush along the road with comparative impunity, leaving in its wake a trail of accident and impotent anguish. For this and other reasons, the automobile is a worse nuisance on country roads than bicycles ever were. It is true that now and then a hare-brained specimen of the genus chauffeur will crash into a tree or otherwise succeed in demolishing his vehicle, with possibly fatal consequences to himself. Such instances are, with that peculiar kind of logic common to autoists, offered in pacification of horsemen and pedestrians, as representing that the danger is not all to these. As though the fact that homicides are liable to commit suicide were an argument against restraining them from attempting murder!

Instances without number might be cited to illustrate the supreme selfishness and brutal indifference of many motorists, and this is said not forgetting that there are some who manifest the most praiseworthy consideration for the rights of others. It is not the latter class we are aiming at, nor for whom regulations are required. It is the large body of more or less flagrant offenders. Here is a case in point, recited with great gusto by one of the participants. A touring car, with a party of gentlemen and ladies (?), was tearing along the road from London to Chatham at thirty miles an hour. Upon its approach, a pair of horses in a pasture field took fright, jumped the fence, and ran along in front of the machine, which gleefully followed the terrified animals at full speed for a mile or so, as a dog would run down a fox. A woman in a buggy was overtaken by the runaways and pursuing car; her horse took fright, and pitched her into the ditch, while the runaways leaped a fence into a field. Without slackening speed, the motor-car rushed by pell-mell, its occupants laughing and jeering at the fracas they had been able to stir up. For were the roads not made for autoists, and of what account are such primitive creatures as dumb animals and farmers' wives? It is this fiendish tyranny and callousness that maddens the men who made the roads, and who fancied, poor fellows, up till a short time ago, that they had made them for riding and driving.

It is probably true that, in time, when the novelty of the plaything wears off, the spoiled children of the cities, whose fortunes, by the way, have been largely made through the fiscal burdens imposed on the farming community, will drive in

a saner manner, while acquaintance will render their vehicles less terrifying to equine temperament; but what about the meantime? Is the pleasure or the convenience of one autoist to constantly terrify and hamper a hundred farmers with their wives and families? Is the great agricultural industry, upon which the welfare of our country depends, to be compelled to suffer one more handicap on country life? Are the capitalists, whose investments in industry have been made profitable by bonuses, tariff favors, franchises and privileges, to spend part of their earnings buying engines of destruction, to be recklessly used in still further depopulating rural districts, while the farmer is expected to be satisfied with a sop of a few hundred thousand dollars to the Department of Agriculture?

It is time the farmers of Canada arose in their might and informed their legislators that henceforth legislation is to be framed chiefly in the interest of the many, rather than of the few. There should be a portion of every week on rural roads when it is made safe to drive horses. The country is in earnest on this question, and earnest measures are demanded. Trifling will not be tolerated. Where does your representative stand?

\*\*\*

Since time immemorial, the wealthy and aristocratic classes have professedly or tacitly regarded themselves as the salt of the earth, and the masses of the people as so many yokels, to be tolerated because they relieved the privileged ones of certain menial duties. In the heightening dawn of the twentieth century, the spirit of democracy is asserting itself, notwithstanding occasional instances and tendencies to the contrary in some quarters. We are coming to see that it is the individual human life that matters, rather than the few sordid dollars of savings or earning power that it represents. The life and welfare and comfort of the poorest laborer or the humblest citizen is of just as much importance from a Christian and humanitarian standpoint, as that of a Shaughnessy or a Rockefeller. Viewed from this standpoint, how does the automobile traffic stand? Does it not perpetrate an outrageous injustice upon millions of people for the sake of affording doubtful pleasure to a few thousands?

\*\*\*

It is commonly regarded as a triumphant vindication of a new invention to say that its users are pioneers of progress. It is claimed, on behalf of motorists, that they are popularizing and promoting invention in a mode of conveyance calculated in time to revolutionize rural as well as urban transport. They say that light and cheap motor cars will come into vogue among farmers. Probably they will, eventually, though we beg leave to point out that any vehicle which must stand idle during four or five months of the year will never completely displace the horse as a motive power in rural Canada. Motor cars will doubtless come into summer use among farmers in time, but we do not anticipate the passing of the roadster yet awhile. Meantime, the interests of horsemen and pedestrians should be considered paramount.

\*\*\*

It's an ill wind that blows nobody any good. If the presence of the merciless autoist on cur roads, terrorizing horses and drivers, shall lead to a more humane and Christian sympathy with animals both domestic and wild, one great blessing will have been accomplished. People who quake at the approach of a heartless chauffeur may be less inclined to tolerate the cruelty of the boy who goads or whips his horse or dog for the sake of seeing it "stand around," or the wanton practice of the sportsman. The kind of hunting

commonly designated sport is nothing more or less than deliberate and systematic cruelty. The old fable of the boy and the frogs needs much teaching among us, and example is often the most effective tuition.

#### BEEF TYPE WITH DAIRY CAPACITY.

Elsewhere in this issue appears a letter from our esteemed and vigorous correspondent, John Campbell, of Victoria Co., Ont., discussing an editorial on the "Shorthorn Record of Dairy Performance," in our issue of March 19th. At the outset, Mr. Campbell quotes two extracts from the second and third paragraphs, respectively, which he construes as contradictory. The sentence extracted from the second paragraph reads, "It is not form, but capacity to perform, that we are after to-day." The excerpt from the third paragraph is worded, "The call is not to sacrifice beef type and turn undivided attention to milk, but rather to retain the beef type and the beefing proclivities, and to develop in cattle of this type a liberal degree of milking capacity."

We are convinced that a candid and careful perusal of the article referred to will discover no real inconsistency. The second paragraph referred to milking quality, the third to beefing attributes. No one knows better than the up-to-date dairyman that form is not a reliable indication of dairy capacity. Only a few weeks since, a prominent Ayrshire breeder informed us that a certain two-year-old heifer which he was about to discard from his herd, astonished him by yielding, in less than one year, in official test, more than enough milk and butter-fat to qualify a mature cow for the Ayrshire Record of Performance. On the other hand, many a show-ring favorite goes down before unpretentious stable-mates when it comes to production. These are facts, and can be borne out by any number of striking examples, as every wide-awake dairyman who has ever kept yearly records of either grade or pure-bred cows knows full well. Breeders of the dairy breeds, with commendable enterprise, recognize this fact, and go in for Records of Performance. Form is not a reliable or sufficient indication of dairy quality; hence, it is performance to which we must look. On the other hand, form is a pretty good indication—at any rate, one on which we must necessarily depend—in estimating beefing merit; therefore, no man who would breed dual-purpose cattle, will, under any circumstances, think of neglecting beef type. Nor need he. Experience has demonstrated beyond all doubt or cavil, that cows approximating the beef type often rival in dairy production those of the spare-fleshed, wedge-shaped dairy type, so-called. Two essentials of beef type, viz., constitution and digestive capacity, are also the foundation on which dairy usefulness is built, and the other essentials of beef type are not incompatible with excellent dairy performance, providing the combination is selected, bred and developed. We heartily agree with Mr. Campbell that there are herds of Shorthorns seriously lacking in beef type and condition, and that they should be improved in these respects by better breeding, selection and feeding; but this is no argument against developing milking quality, at the same time. Scrawniness is no merit in either beef or dairy stock. The trouble with so many so-called Dairy Shorthorns is that they have been merely off-type, and often unthrifty individuals of beef-bred strains. Lack of beef type does not guarantee dairy capacity, and such are not the class of dairy Shorthorns we are espousing. We want good, thick, thrifty cows that will flesh up well when dry, and milk down readily when in lactation, giving large, profitable yields of milk. There are such; there can and

# THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

PUBLISHED WEEKLY BY  
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,  
WINNIPEG, MAN.

LONDON (ENGLAND) OFFICE:  
W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street,  
London, W. C., England.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE  
is published every Thursday.

It is impartial and independent of all cliques or parties, handsomely  
illustrated with original engravings, and furnishes the most  
practical, reliable and profitable information for farmers, dairy-  
men, gardeners, stockmen and home-makers, of any publication  
in Canada.

2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland  
and Scotland, \$1.50 per year, in advance; \$2.00 per year when  
not paid in advance. United States, \$2.50 per year; all other  
countries 12s.; in advance.

3. ADVERTISING RATES.—Single insertion, 25 cents per line,  
agate. Contract rates furnished on application.

4. THE FARMER'S ADVOCATE is sent to subscribers until an  
explicit order is received for its discontinuance. All payments of  
arrears must be made as required by law.

5. THE LAW IS, that all subscribers to newspapers are held responsible  
until all arrears are paid and their paper ordered to be  
discontinued.

6. REMITTANCES should be made direct to us, either by  
Money Order or Registered Letter, which will be at our risk.  
When made otherwise we will not be responsible.

7. THE DATE ON YOUR LABEL shows to what time your  
subscription is paid.

8. ANONYMOUS communications will receive no attention. In  
every case the FULL NAME and POST-OFFICE ADDRESS MUST  
BE GIVEN.

9. WHEN A REPLY BY MAIL IS REQUIRED to Urgent  
Veterinary or Legal Enquiries, \$1 must be enclosed.

10. LETTERS intended for publication should be written on one  
side of the paper only.

11. CHANGE OF ADDRESS.—Subscribers when ordering a change  
of address should give the old as well as the new P. O. address.

12. WE INVITE FARMERS to write us on any agricultural topic.  
We are always pleased to receive practical articles. For such as  
we consider valuable we will pay ten cents per inch printed  
matter. Criticisms of Articles, Suggestions How to Improve THE  
FARMER'S ADVOCATE AND HOME MAGAZINE, Descriptions of  
New Grains, Roots or Vegetables not generally known,  
Particulars of Experiments Tried, or Improved Methods of  
Cultivation, are each and all welcome. Contributions sent us  
must not be furnished other papers until after they have  
appeared in our columns. Rejected matter will be returned on  
receipt of postage.

13. ALL COMMUNICATIONS in reference to any matter connected  
with this paper should be addressed as below, and not to any  
individual connected with the paper.

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

must be more. Their calves, reared on skim milk,  
liberally supplemented with good farm feeds, will  
fill the bill on the block almost as well as bul-  
locks which have sucked the cow for eight or nine  
months, and will show far better balance sheets.

In our former article allusion was made to cer-  
tain dairy authorities who have been kind enough  
to delegate the sphere of beef production to  
special-purpose, beef-bred stock. We are asked to  
mention their names, but propriety restrains us  
from thus introducing personalities. They have  
been numerous enough, in all conscience, particu-  
larly among the professional and journalistic  
class.

Standing back, watching the calves help them-  
selves, is a very easy and pleasant kind of animal  
husbandry, but not a very profitable one on high-  
priced land—and the land of this country is cheap  
to-day compared to what it will be in twenty-  
five years. It is all right where a man can sell  
a bull calf at a premium as a herd-header, but  
wide-awake Canadian farmers are no longer so  
much inclined, as they used to be, to buy herd-  
headers that have been reared in that way,  
or from herds bred in that way. They  
are commencing to look for bona-fide dual-purpose  
cattle, and it is up to the breeders of Shorthorns  
to supply that demand with the real goods. Argu-  
ment, without evidence, will not do. Prospective  
buyers have been too long cajoled with dual-pur-  
pose talk by breeders whose tacit ambition was  
beef type, and that alone. The Shorthorn breed  
has been dual-purpose in the past, and, fortunately,  
is yet in occasional instances, but has been  
gradually losing the reputation, and only earnest,  
energetic, systematic effort on the part of the  
breeders can redeem it. Just recently we heard

another one of a great many instances in point.  
A thrifty Middlesex Co. farmer, of Scotch descent,  
who had been using a pure-bred Shorthorn bull in  
his herd for many years, was obliged to acknowl-  
edge, on the strength of repeated testimony of the  
women folks, that his Shorthorn-grade cows were  
not the milkers they used to be. Reluctantly decid-  
ing on a change of breed, he went down into  
Oxford Co. to buy a Holstein bull, and was asto-  
nished to find one breeder after another reeling  
off information about the official milk and butter-  
fat tests of the dams and grandams of the male  
calves he was shown, and the youngsters were  
priced largely according to the records of their  
female ancestors. That appealed to him as  
businesslike, and he bought a bull on the strength  
of ancestral performance. It is safe to say he got  
more than a pair of horns.

We do not take much stock in the argument  
that the average dairy cow does not pay, and Mr.  
Campbell does not, either. He is using it, per-  
haps, fairly enough, as a talking point, because  
some dairymen, in their zeal for improvement,  
have made the startling assertion. In a sense it  
may be true that the owner of the average dairy  
cow does not make out of her full current rates of  
interest, wages, taxes, sinking fund and running  
expenses. Probably that is true of the average  
farmer in any line; but if so, it is particularly  
true of the man who is raising commercial beef  
cattle. That even average dairying is more re-  
munerative than average commercial beef-raising—  
not beef-fattening, for that is a speculation, the  
profit being made not out of the increase in weight  
but the increased value per pound of the original  
carcass—no sane man will seriously deny. That  
beef-raising is a more congenial and less-exacting  
means of earning a living, is equally true. We  
believe a considerable number of farmers will find  
their most acceptable course to be a combination  
of the two lines, providing they have the right  
kind of a cow with which to prosecute them.  
Thus they may relieve themselves and their  
families of some of the exactions of specialized  
dairying, and at the same time insure a more  
liberal income, and make far more profit out of  
the land than by attempting specialized beef-  
raising. But they must have the right kind of  
cow, and she is not a cross of Hereford and Hol-  
stein, but a good grade or pure-bred Shorthorn,  
bred and developed along dual-purpose lines.

Two influences are opposed to the development  
of the dual-purpose capacity in Shorthorns, to  
wit: the conservatism of established practice,  
and, secondly, as Mr. Campbell frankly avows, a  
disinclination on the part of breeders to forsake  
the easy way of letting the cows suckle their  
calves. These influences will, however, be eventu-  
ally overcome by the enterprise of the breeders,  
individually and collectively, and by the financial  
emoluments accruing to those who meet the unmis-  
takable demand. The demand for poor-milking  
Shorthorns is small, and growing less; the de-  
mand for high-class dual-purpose stock is wide-  
spread, and growing stronger. Economic neces-  
sity is behind the change. Good beef is eco-  
nomically bred and reared on valuable land only  
by dual-purpose stock. Give us beef form, with  
dairy capacity.

## FIRST IN AMERICA.

While at the Pennsylvania State Col-  
lege, during December, January and Feb-  
ruary, I was glad to be able to see a copy  
of "The Farmer's Advocate" each week  
in the library. The leading professor told  
me that your paper was the best publica-  
tion that came to the College, and they  
have a great many from the United States.  
I was pleased to learn that "The Farmer's  
Advocate" takes first place among the  
leading agricultural papers in America.  
Brant Co., Ont. J. W. CLARK.

## A VALUABLE REFERENCE WORK.

I have taken "The Farmer's Advocate" for eighteen  
years, and having the numbers all on file, find it to be  
very useful for reference. D. McLELLAN.  
Hants Co., N. S.

## "ALFALFA OR LUCERNE."

"Alfalfa should be very carefully tested on  
many farms throughout Ontario. Its large yields  
of nutritious feed for farm stock, its perennial  
character of growth, and its beneficial influence on  
the soil, are all features which commend it very  
highly for those farms on which it can be grown  
successfully."

These words are quoted from Bulletin 165, on  
"Alfalfa or Lucerne," by C. A. Zavitz, Professor  
of Field Husbandry at the Ontario Agricultural  
College. It is a crisp, compact, readable bulle-  
tin, based largely on the results of investigative  
work done at the O. A. C. While not pretending  
to be exhaustive, it presents much practical infor-  
mation in plain language, and is well calculated  
to interest and instruct busy farmers concerning  
this invaluable crop, as well as acquainting the  
general reader with gleanings from the experiments  
conducted with it at Guelph. The bulletin may  
be had on application to the Ontario Department  
of Agriculture, at Toronto, or the Ontario Agri-  
cultural College, Guelph.

To summarize this little treatise fully, would  
make quite a long article, and, as much of the  
information has already been reiterated through  
our columns, we will merely select a few pickings:

Good results should not be expected from sow-  
ing alfalfa on a cold, sour, wet subsoil. It is  
probably safe to say that the under soil has a  
greater influence than the soil at the surface, in  
making the conditions favorable or unfavorable  
for the successful culture of these deep-rooted  
plants.

On the fifty-acre field of gently-sloping clay-  
loam soil, in the experimental department at the  
O. A. C., part tile-drained, and part with a fairly  
well-drained subsoil of varying character, alfalfa  
thrives fairly well on all parts of the field except  
on the low land, which will not permit of being  
underdrained to a depth of more than eighteen  
inches. On this low land it seldom lives more  
than two or, at most, three seasons. On the  
other land it appears quite hardy. Since 1888,  
well-established alfalfa at the College has been  
badly winter-killed only once, and partly winter-  
killed twice.

In the ten years' experiments with different  
seedings, in different parts of the experimental  
grounds, the crop being always sown in the spring  
of the year, at the rate of 18 or 20 pounds of  
seed per acre, usually with a bushel of barley per  
acre, the average annual yield of alfalfa per acre  
per annum was 21.67 tons of green crop, and 5.27  
tons of hay. In each of eight years, three cut-  
tings were produced, but in 1907 only two, while  
in 1896, the spring of which opened early, four  
cuttings were obtained, the first being secured on  
June 1st. The average dates of cutting, one year  
with another, were: First cutting, June 21st;  
second cutting, August 2nd, and third cutting,  
September 21st; stage of cutting, early bloom;  
first cutting gives about double the yield of the  
second, and the second about double the yield of  
the third.

Experiments are being conducted with different  
varieties and strains of alfalfa. In 1907, the  
second crop on each of a number of plots was  
allowed to go to seed, and the hope is expressed  
that in time we shall be able to produce in On-  
tario a good supply of seed of the very best  
strains of alfalfa. Meantime, the common vari-  
ety is as good as any.

Inoculation is touched upon, and Bulletin 164,  
by Prof. S. F. Edwards, Bacteriologist of the  
College, is referred to. On the experimental plots  
at the O. A. C., artificial inoculation is not neces-  
sary, as the plants produce abundance of nodules  
without.

A clean seed-bed is important. At the Col-  
lege, and in other parts of the Province, Cana-  
dian blue grass often causes some trouble, by  
growing in among the alfalfa plants. A thorough-  
ly-cultivated hoe crop is a first-class preparation.

Autumn sowing, with or without nurse crop,  
did not give nearly such good results as spring  
seeding. In an experiment with spring wheat,  
barley and oats, compared as nurse crops, spring  
wheat gave the best, and oats the poorest, re-  
sults, the latter having a tendency, especially if  
thick, to smother out the young alfalfa plants.  
All nurse crops used with alfalfa should be sown  
quite thinly. In another experiment conducted in

duplicate, slightly better results were obtained from sowing a bushel of barley per acre than from seeding alone. On the College plots, they now sow alfalfa in spring with a bushel of barley per acre.

Experiments with barnyard manure, hen manure, and various kinds of commercial fertilizers, indicated that this land, which is in excellent heart, being well supplied with lime and the mineral elements of fertility, was not badly in need of enrichment. In one test, 12 tons of manure per acre before seeding gave an average yearly increase in the following years' hay crop of only about half a ton per acre. In an experiment with 20 tons of farmyard manure, compared with 5 tons of hen manure, applied on well-established alfalfa, somewhat similar results were obtained, the hen manure producing rather noticeable results at first, but the other proving more lasting. In the experiments with fertilizers, the phosphatic fertilizers gave the greatest yield per acre, but the results were not at all marked. Readers are warned, however, that on lands less abundantly supplied with fertility, the benefits of fertilizers would probably be much more pronounced.

Under head of "Uses," we read, "Alfalfa can be used in Ontario for the production of hay, green fodder, pasture, seed, green manure, silage, a cover crop in orchards, etc. It is quite probable that its use in this Province will be in about the order in which the list is here given. For the production of hay, it is a most valuable crop, producing, under favorable conditions, large yields of excellent quality. The green fodder is both nourishing and appetizing." As part of a permanent-pasture mixture for soils to which it is adapted, alfalfa is highly commended; pastured alone, it is attended with some risk from bloating. Under the head of "Quality as a Feed," analyses by Prof. Harcourt, of the O. A. C., are cited, showing that it contains about one-third more protein than red clover, and about three times as much as timothy. Some American investigations quoted make even better showing, indicating that it contains about 50 per cent. more digestible protein than common red clover. When it is known that protein is the element which gives bran its peculiar feeding value, the advantage of alfalfa hay may be more fully appreciated.

An important section is devoted to the influence of alfalfa roots on the soil. Grain was grown experimentally upon alfalfa and timothy sod, the former in every case giving much the larger crops, yields per acre being as follows: Winter wheat, 61.5 bushels on alfalfa sod, and 42.1 on timothy; barley, 30.2 on alfalfa sod, and 19.7 on timothy; corn, 24 tons on alfalfa sod, and 17.9 on timothy. As to the physical condition of the land, it was found that, while alfalfa was harder to plow than timothy, owing to the immense thickness, length and strength of its tap-roots, yet the upturned layer of soil was much more friable in the alfalfa than in the timothy stubble, and when some of the long roots, to a length of two, three, four or five feet, or more, were pulled out of the subsoil and deposited in the surface furrow, the land was left in excellent physical condition; and, as the roots decayed, they supplied a great quantity of humus rich in fertilizing elements.

#### FARMERS' CLUBS.

During the last couple of years, through the efforts of the various Farmers' Institute secretaries, and with the aid of the Superintendent of Farmers' Institutes, here and there, Farmers' Clubs have been formed. The rules and regulations are simple, and can be obtained by anyone interested who applies to the Superintendent, G. A. Putnam, at Toronto. However, it is not the forming of these Clubs, but their value, that this article is intended to discuss.

#### DISADVANTAGES OF ISOLATION.

Some years ago a British statesman spoke of Britain's splendid "isolation" which has kept her apart from the nations for centuries. A similar "isolation" has kept the farmers apart, but, unlike Britain's "isolation," ours is to our disadvantage. The failure to get together like all other classes, to first get acquainted and learn to know and trust one another, and second, discuss matters pertaining to our business—and under business we include all questions that affect the farmer—has left us as we are to-day, unorganized, and therefore at the mercy, to a certain extent, of all properly-organized classes. To-

day, from the so-called professional classes, down to the bootblacks, there is organization. The members of each organization stand together, trust one another, and in their union lies their strength. They study their own problems, and stand out for what they consider to be the solution of these problems. Farmers, through their lack of organization, put in their time in wasting wind, which, on account of their environment, falls on empty air. Co-operation for a few decades would produce a totally different state of affairs.

#### DISCUSSION OF FARM PRACTICE.

Besides learning to stand together, a discussion of subjects pertaining to our own occupation, viz., tilling the soil and raising stock, would result in improved methods and an increased output. In England, those districts that first took precedence over the others, were those where a few farmers met each week at one another's farms to look over the crops and stock, hear the owner describe his methods, and discuss with him whether or not these were the best for his conditions. In this way, new ideas and methods were brought out, and steady improvement made in farm management. Each district has problems to solve peculiarly its own. These can only be satisfactorily solved by the farmers themselves, aided by general principles, and all the particular cases and their solutions that are on record. These studies can be made of great educational value. Not only may home conditions be studied, but conditions and practices of other districts, Provinces and countries will also come up. Knowing not only how, but why, makes the difference between the fellow who owns the mud and the one who owns the sunshine as well. In order to be good farmers, we cannot know too

that confronts many Ontario men. Now, we presume to say that, had our foresight been as good as our backsight, this scarcity, with its consequent losses, might have been averted. Had the question of a likely shortage of feed been discussed early in the year 1907, when it was seen that hay was going to be a short crop and grain uncertain, many feeds might have been sown which would have made up largely for the shortage. As one instance: A short time ago we heard an Institute speaker tell a story related to him by a well-known secretary of one of the leading Farmers' Institute Associations. This secretary said: "About fifteen years ago there occurred a shortage in this district which caused much loss. Next year the growing of soiling and other supplementary crops was discussed, and, as a result, for several years there was abundance. Good times and crops made men careless again, with the result that to-day we are worse off than we were fifteen years ago. One wide-awake boy, however, in my own district noticed that eight acres of his crop was a failure. He asked me what was best to do. I urged him to plow it up and sow to corn. He did so, with the result that he has been able to sell over four hundred dollars' worth of hay that would have been required for the stock on the farm had the corn not been sown." This boy had foresight. Our backsight now tells many of us we might have done something similar with good results. This was just another instance of the value of getting together and discussing one's own business.

#### COHESION AND CO-OPERATION.

A burning question is the marketing of all agricultural produce. The tolls exacted by the middlemen are out of all reason. By the organization of Farmers' Exchanges and concerted action on the part of the producers, these things could be greatly lessened. The method of dumping nearly all our produce on the market at one time of the year, whether the market is up or away down, stagnates trade, and has a ruinous effect on prices. Our perishable products could all be held in cold storage, and sent forward as demanded. A steady, brisk demand, and, consequently, fair prices, would be the result. The bulls and bears would not be found on the market, which would be a blessing to both producer and consumer. Co-operation has done much for the minority wherever tried; why should not the great majority of the people of this country profit, also. Adhesion is hardy enough. Cohesion would be what is necessary.



Hawsker Rosina.

Hackney mare; chestnut; foaled 1901; sire Rosador. First in class and champion, London Hackney Show, March, 1908.

much about our own profession. A wide knowledge of the History of Agriculture, past and present, not only makes a better farmer, but also a better man in every sense of the word, for knowledge adds dignity to any profession.

#### DISCUSSION OF PUBLIC QUESTIONS AND INTERESTS.

Provincial or national problems can be better studied and discussed by a club, though the individual will do well to keep himself informed where no such club exists. To-day, many Provincial and National questions are calling for solutions and adjustment. Questions relating to trade and commerce; the tariff; Government ownership; the disposal of public lands, whether timber, mining or agricultural; and the taxation of railways, should be studied, and could be discussed by any live club, with benefit to the members themselves and the country.

Take the case of the taxation of railways. One township collects less than three hundred dollars. Were these roads assessed as they are in the State of Indiana, viz., twenty-two thousand dollars per mile, and taxed at the ordinary rate current in the said township, the taxes would amount to over ten thousand dollars. In Ontario, according to a recent writer, the railways pay one-twentieth of one per cent. taxes on their bonuses. The railways will never ask to be taxed. It is the duty of the citizens to bring it before the legislators in such a way as to command respect.

Many other problems might be discussed. Here we have just a few subjects that it is the duty of every good citizen to know something about.

#### HINDSIGHT VS. FORESIGHT.

Just now the scarcity of feed is a problem

#### MUST DEVELOP OUR OWN REPRESENTATIVES.

Another thing that often causes the observer to pause and consider is why agriculturists are represented in the Provincial Legislatures and in the Dominion House by so many lawyers and other professional men. Ninety-six lawyers in the Dominion House out of two hundred and fourteen members, while farmers number about fourteen. Seven-tenths of the people of Canada are represented by fourteen members out of two hundred and fourteen. No one would admit that the average boy who stays on the farm is less intelligent than the one who studies law or medicine. These latter get a training in public speaking and in debating. This training could be obtained largely in any well-run Farmers' Club. One old-time club trained all the M. P.'s for the county for over a quarter of a century. At the same time, other counties were importing their representatives from outside. Not that these other counties had not the men, but they had not men trained to think, and give clear expression to their thoughts while on their feet.

Give the boy on the farm half the chance his brother gets, and we shall not be in the humiliating position of not being able to furnish our own representatives. Moreover, if the young people are given a chance for self-improvement at home, there will not be so many ever ready to flock to the city. To-day, a training that will fit the farmer to fill justly, honestly and well both private and public offices, has become an imperative duty of every citizen of this Province of Ontario, if agriculture is to occupy its proper position as the first and most useful of all professions.

## INDEPENDENCE OUR UNDOING—ORGANIZATION OUR HOPE.

Above all, let us learn to stand together. Our boasted independence in the past has been our undoing. Our lack of reliable and sure organization has left us the easy mark of all properly-organized bodies. In the future let our motto be, "E pluribus unum." NEMO.

## OUR MARITIME LETTER.

## THE COMMUNICATION PROBLEM DISCUSSED.

Everywhere we went, in our tour over the country last month—through Nova Scotia, New Brunswick, Quebec, Ontario, and even the United States—we found great interest manifested in our transportation difficulties as a Province, and almost universal sympathy and support for the Tunnel. "What is being done, Father Burke?" was the commonest query we had to answer, and this is about how we answered it:

"Although the present Government have done nothing of any positive value so far to advance the Tunnel project, the work of Sir Douglas Fox, which is still the real substantial structure underlying it, being done by another administration, this great, necessary work is certainly growing on the public mind everywhere, and, as a prominent Toronto editor said to us the other day, instead of being something vague and visionary, as in the past, it is now brought down to the region of practical politics, and must be constructed within very proximate time, no matter the party in power. Some little justification, I am amazed to find, is being claimed by the procrastinationists in the Ministry, and out of it, from a sort of belief that the Island community itself was not united in this demand. They have no doubt, but that there are Tunnel enthusiasts down here—indeed, they could name a few—but they think the rank and file are passive and drifting, and they imagine, anyway, that the party whip can solidify the ranks, as of old. The people of Prince Edward Island, let me assure you, were never so completely at a unit on any question before. They want the Tunnel, and nothing but the Tunnel, as the only satisfactory impletion of the special terms of union, as to communication, under which they were confederated. Sir Wilfrid and Mr. Borden frankly admit, too, that the terms can be readily and naturally be construed to mean a tunnel. Sir Wilfrid is, or should be, too astute not to see that no sort of steamer can keep up continuous communication with the 'railway systems of Canada'; that the placing of rails under the Strait will alone satisfy the letter and spirit of the terms, and give my Province the same access to the centers of trade and commerce that the other units of the Union enjoy. Yes, yes, we know the Tunnel would do all you say to make the Island contented and prosperous; we know that ultimately it will have to come, too, say the powers-that-be, but just now we are building another steamer, and when we see what she can do, or cannot do, we have to make a move on the Tunnel. We are expending so much money now on other things that the Minister of Finance is sitting down hard upon the public chest."

This is very poor procrastination talk, even; it is eminently unjust and uneconomical. We have a pact unfulfilled, which the country is willing—I know it, from side to side—to fulfil as a first charge on the Treasury, provided it can be done reasonably; and we are not out for unreasonable things. We know that the present system is costing the country more than a tunnel, at ten millions, or even fifteen millions, and giving a service that will never be efficient. We know, too, that our little Province is paying its way handsomely with the Federal partner, and would be still paying its way handsomely if even a tunnel were constructed to-morrow. Since we have it in the bond; since bond or no bond, the fair-play of Canada wants to equip us with one ordinary, permanent and satisfactory system of transportation; since even any reasonable man can figure out the problem for himself, and see that the economics are largely on the side of the tunnel; and since it will not down until it is secured, it were foolish to further put off, especially in the face of recurring bills of damage for unfilled engagements, amounting already to millions, and the other fact that insufficient transportation is depleting an otherwise rich and promising Province of the Dominion.

Mr. Martin made an exhaustive and forcible utterance on the floor of Parliament last week, and commanded the undivided attention of the House. He was ably supported by the Island delegation, and Mr. A. A. Wright, of Renfrew, Ont., rose and said it was time the Island were treated decently in the matter of promised communication, which a tunnel alone could give, and he, as a Liberal and representative of Ontario, could say that his Province wanted it done without further vexatious delay. The Nova Scotia members, who enjoy patronage from steamer supplies, made a little division, touching the advantages of their respective ports as points of landing; and then the Prime Minister pleaded pro-

crastination, as there were heavy demands elsewhere, and Mr. Borden showed that our claim was a first charge, and should be satisfied by a tunnel, if unsatisfiable by the methods hitherto applied. It is evident that, after all these years—when we should have the most accurate information before us—the Government imagine that little Prince Edward Island, with her small representation, can better be pushed aside with the big demands which help in elections, than the other large communities, where votes are numerous. It may be good politics, but it is certainly poor justice, to thus trifle with us, and the other party to the Confederation contract—our own Local Administration—will possibly have to go again to the "Foot of the Throne" and represent our case and demand redress. There is no doubt of this; London, which advised so strongly before, will now urge more strongly than ever, and Ottawa will have to listen. We should not be compelled to do this; the people of Canada are with us in our legitimate demands, and Mr. M. J. Haney, of Toronto, a most experienced engineer and contractor, with whom I spent a day or two last week, is still satisfied that the Tunnel can easily and profitably be built for \$10,000,000. They will, therefore, save us great expense of energy and endless agitation by meeting our wishes at once, thus permitting our Province to prosper as it should, for we will have to keep up this agitation till success crowns our efforts."

A. E. BURKE.

## HORSES.

## BREEDING OF DRAFT HORSES.

Editor "The Farmer's Advocate":

As the mating season is about to commence, it has occurred to the writer that the breeding of draft horses might be thoughtfully and profitably considered through the medium of your valuable journal, whose columns are magnanimously thrown open to those who may think fit to avail themselves of the opportunity.

With regard to the breeding of draft horses, it is very probable that the merits and demerits of certain sires will be discussed in almost all localities where such may be found; and it is to be hoped, for the benefit of all concerned, that the question will be intelligently and thoughtfully considered.

There are some localities in which the Clydesdales predominate, almost to the exclusion of all other breeds. Where such is the case they are usually a success, and give good satisfaction. But in such cases it sometimes happens that a Shire stallion of a very superior type will happen along. Some would mate him with their Clydesdale mares, but the progeny would not be eligible for either of the studbooks. When this occurs it is sometimes a loss of no small account, which is entirely unnecessary.

It is the opinion of some, it is the opinion of the writer, that the studbooks of the Shire and Clydesdale breeds could be profitably and advantageously amalgamated.

Probably some breeders will say this is ridiculous. But why? Are they not practically the same breed? Both have the same characteristics—the heavy bone, the long feather, as it is called, around their legs; the heavy, flowing mane, and tail, although the latter is generally stubbed off. The markings, on the whole, may be somewhat different, but the color of good horses is of small or no consequence. The breeders of each are striving for the same purpose, namely, to produce a superior heavy-draft horse; and there can be no doubt both stand in the very front rank of heavy-draft varieties, and as union is strength, there can be no doubt the amalgamation of these two studbooks could not be anything but a benefit.

Some may say they have not been mated with same object in view—the one has been bred for size and the other for quality. This may be true to some extent, but there can be no doubt that each has a goodly portion of both size and quality. But even were this true it should not be an objection, and as all that is necessary to constitute a heavy draft horse is size and quality, why not combine them, provided type will allow, and it certainly will sometimes? And some may say, "as well cross the Clydesdale with the Percheron," but the latter have not the feather to which Clydesdale men point with so much pride (and, I would say here, it seems to me the feather becomes them, and perhaps it might be well to preserve it), but if judiciously mated with the Shire there is no danger of him losing any of his good qualities.

It may be contended that had they been of the same breed there would never have been two studbooks. To this I would say, that some thirty years ago, when the first studbooks were formed, it would have been difficult, if not impossible, to have formed a nucleus then, with only one studbook, as there was so much territory to be covered, in both England and Scotland, with information having to be gathered largely from memory, rendering it very tedious and arduous to obtain correct information with regard to pedigrees, and having had to be revised more than once, with an appendix added for all those approaching the necessary qualifications; hence the two studbooks were formed where one would have been impossible. But now that the initial stages of both these books have been passed, and they are well established, any one can look either of them up and find highly-bred, excellent draft horses fit to

stand in the very first rank in any competition; and I have no doubt an improvement could be reached and an advantage if they were combined. Englishmen and Scotchmen should not allow themselves to remain prejudiced in this matter. SUBSCRIBER.

Hochelaga Co., Que.

## THE OFFICIAL VETERINARIAN AT HORSE SHOWS.

From an address by F. C. Greenside, V.S., read before the Veterinary Medical Association of New York County.

The position of the veterinarian in the show-ring is by no means always a pleasant one. Circumstances every now and then arise that make it extremely disagreeable, and if the official does not use good judgment he is apt to stultify himself, injure his reputation, and cause reflection upon the profession. The great thing is to be right in an opinion, for although it may annoy an exhibitor at the time to be decided against, he will respect the giver of the opinion all the more when he finds out he was right.

Many exhibitors who are not practical horsemen are apt to form erroneous opinions as to questions of lameness, practical soundness, or the height of an exhibit, and it is often difficult to prove to them the correctness of an opinion given, as their prejudice is apt to be the other way. We have already stated that it is very important that an opinion given shall be correct, but it is by no means an easy matter, if not sometimes impossible with the limited opportunities afforded in the show-ring for examination, not to fall into error.

For instance, if a judge suspects a horse of being lame and seeks the veterinarian's advice, the tactful official first of all tries to form an opinion without drawing the public's attention to the fact that an exhibit is under suspicion. Exhibitors, as a rule, are very sensitive about having the public's attention directed to the fact that a horse of theirs is under suspicion of being lame, whether rightly or wrongly, so that the veterinarian tries to save their feelings all he can, and simply observes the horse being driven or ridden in the most undemonstrative manner he possibly can. It is sometimes possible to come to a conclusion in this casual way, but as a rule it is not, and the official veterinarian is unwise to take the chance of making a mistake in any doubtful case simply out of consideration for an exhibitor's feelings. No experienced veterinarian would take the chance of giving an opinion as to whether a horse is going sound or not in a case of examination for soundness for a client without seeing the subject jog in hand. This, of course, is practicable in the show-ring only in exceptional cases, hence one of the difficulties of the position. One, then, has to take advantage of available means to endeavor to form a correct opinion. In doubtful cases the bearing-rein should be unhooked, and the horse driven with a loose rein at a slow pace, and it is often well for the inspector to take the reins in his own hands so that he can let the horse go in the way he wants him to. Sitting in the vehicle behind the suspected horse gives a more favorable opportunity to come to a correct conclusion than can be had standing on the ground, particularly if the lameness is thought to be behind.

We must not lose sight of the fact that horses "pulled together" with sharp bits, and borne up with tight bearing-reins, often get sore mouths which sometimes put them off their balance, causing them to "hitch," or it may be to go irregularly in front, giving observers the impression that they are lame. Irregularity of gait from this cause is intensified in small rings with sharp turns.

Some people take the view that a horse that shows irregularity of his gait either in front or behind should be considered as a lame horse in the show-ring. If this view were accepted judges would often find themselves in embarrassing positions toward the end of the show, when championship classes come on. I have seen at Madison Square Garden Show several of the candidates for championship honors out of a small class of three or four, "hitch" most of the time. They were "stirred up" to the highest pitch, "pulled together" by the driver to show all the action and style there was in them.

This being a little overdone is apt to put them off their balance and cause them to "hitch," especially if their mouths are sore.

A judge noticing irregularity of the gait of a horse is very apt to turn to the veterinarian and ask for a decision as to whether the subject is lame or not. If the inspector cannot satisfy himself one way or other when the horse is given a loose head, and driven at a slow trot, he is justified in giving the exhibitor the option of having his horse unhitched and tried in hand, and if he will not submit to that, he must be excluded as a lame horse. No fault can then be found with the veterinarian, as he has given the exhibitor a fair chance, and has not committed himself beyond giving the opinion that the case is a suspicious one.

It is very embarrassing to an official acting in this capacity to have condemned a horse as lame in the ring, shown to him going sound, on the outside, in hand. If a horse is not lame when jogged in hand, he can hardly be considered a lame horse. Irregularity of the gait, if it cannot be determined as arising from unsoundness, is for the judge to pass upon, not the veterinarian. If a horse's way of going is defective, and is not the result of unsoundness, it detracts from his merit, but does not exclude him from competition as lameness does.

The rules of nearly all horse shows only call for

practical soundness. This is generally conceived to mean that a horse is not the subject of any diseased condition likely to interfere with his usefulness. It really means with many judges that if the horse does not go wrong in the ring, his soundness is not questioned.

Many judges never ask the veterinarian's opinion unless they think a horse is going lame, is wrong in the wind, or is not within the limits of height called for. As a matter of fact, it is not so very uncommon for horses to go on taking prizes month after month, and sometimes year after year, that would not go sound on the halter, on a hard road, and if they did any regular work would soon be used up; but they are game horses, usually with speed, and when they are stirred up, and pulled together, they will not show lameness of which they may be the victims, unless it is fairly pronounced. Many members of the veterinary profession do not recognize the fact that there is such a thing as lameness resulting from soreness of the mouth. Thirty years' experience has taught me that there is such a thing, and that it is not so very uncommon, especially in the show-ring.

Some may take the view that if a horse goes lame, even if it is from the mouth, it renders him ineligible to a prize. However this may be, it is important for the veterinary inspector to discriminate between lameness, the result of disease of a limb, and lameness due to discomfort in connection with the mouth. If he does not do so, he is apt to be confronted with an irate owner who insists upon him going to see his horse jugged in hand, outside of the ring. If the horse previously condemned in the ring as lame, goes sound in hand, it is very embarrassing to the veterinarian, and is apt to be confusing to the laymen witnessing the case, unless the veterinarian is ready with an explanation. A horse may strike himself in the ring, causing him to go temporarily lame, so that it is well to give a suspected exhibit a little time to recover from the injury before condemning him, or the veterinarian may be able to determine and point out the seat and evidence of a self-inflicted injury; so that the judges would have the responsibility of deciding whether they would reject a horse for a temporary trouble originated in the ring.

In the case of a saddle horse suspected of lameness, it is not wise to condemn him without taking the saddle off, as a tender spot under it will make some horses show irregularity of the gait. The veterinarian for his own protection should see that the party who jogs the horse, only has hold of the bridle rein, and makes the horse carry his head straight. I have seen a saddle horse thrown out as unsound from no other reason than that the man who led him in jogging took hold of the rein attached to a sharp curb bit, causing the horse to nod his head. I have recently seen a horse go lame near hind from a crupper sore. Why he showed it near hind and not off I cannot explain, but as soon as the crupper was taken off he went sound.

The question of the soundness or unsoundness of a horse's wind often causes debate in a show-ring, but, judging from what one frequently hears from the ring-side, a considerable degree of liberality is shown exhibitors. Doubtless a great deal of the roaring one hears is due to compression, from pulling, and sometimes to gagging from high checking, but not infrequently a horse gets away with a ribbon that few veterinarians would pass if they were examining him for a client, and it would be interesting and useful if this association would lay down a rule to guide one in determining what to accept or reject for practical soundness of wind in the ring.

### LIVE STOCK.

#### THE LIVE-STOCK OUTLOOK ON PRINCE EDWARD ISLAND.

(Prof. Theodore Ross, of Prince Edward Island, before the National Live-stock Convention, at Ottawa, February, 1908.)

In the few minutes at my disposal, I would like to lay before you, as clearly as I can, the status of the live-stock interests in Prince Edward Island at the present time, and speak also of the outlook; and if the present situation should seem to be discouraging, I trust you will look beyond it to the future, which already appears bright with promise and full of hope.

#### MISTAKES IN HORSE-BREEDING.

I shall discuss, first, the situation in regard to horses. Some time ago, perhaps twenty years or more, we were proud of our horses. Every spring brought numbers of buyers, mostly Americans, to our shores, and many a farm was paid for and many a mortgage lifted by the money they exchanged for our heavy-draft horses. The imposition of the heavy duty put an end to this, and the breeding naturally declined. This furnished the opportunity for a few shrewd speculators. Our people wanted to raise horses. There was no money in draft horses, then why not try racers? A few men were at it, and one or two sales had been made at handsome prices. These pointed the way. What one man could do, another could do, and, without delay, tracks were prepared on farms, and the public roads transformed into speedways. But the crossing of trotting sires, excellent as many of them were, on heavy mares, proved disappointing, and the decline became even

more rapid. Last year the number of horses on Prince Edward Island was only 30,435, or about 7,000 less than in 1891. The tide, however, has turned. This last year or two our people have been getting back into heavy horses, and a number of excellent Shires and Clydesdales have been imported. Dr. Standish, in speaking to the Short-course students at the College of Agriculture, Truro, N. S., last month, said the class of draft stallions he had judged at Charlottetown, at the Interprovincial Fair, in the autumn, would have done credit to the Toronto Show. It is true, we cannot start in where we left off some years ago, but we are again on the right track, and progress is only a matter of time. I would like to tell those of you who are particularly interested in this subject that there is a good market for heavy sires and brood mares in our Province, and I hope some of you may find it to your advantage to deal with us.

#### HOPE LIES IN DAIRYING.

The dairy-cattle story is somewhat similar. In 1900, our cheese factories and creameries received 59,900,000 pounds of milk, and in 1906 only 32,000,000 pounds. Even this does not complete the doleful tale; the number of milch cows has not fallen off in nearly this proportion. In 1900 we had 55,684, and in 1906, 45,550, or only about 10,000 less. If, then, the average milch cow on Prince Edward Island gave only 2,184 pounds of milk in 1900 (see census returns), in 1906 she gave less than 1,500 pounds, or about one-third of the amount given by the average cow in Ontario. On inquiry, too, from the leading merchants in every part of the Province, I find that the amount of homemade dairy butter being offered for sale is also declining; and from the

have faith in themselves and in their business. They put their money in the best cattle that can be had, and are not afraid to feed them. And I am proud to say that, in the show-ring, their stock compares favorably with the best that comes along. Our young men are our hope, and the story of the dairy industry in the next five years will be most pleasant to tell.

#### BEEF CATTLE FOR THE LOCAL TRADE.

The outlook for beef cattle is not promising. Fifteen years ago nearly every farmer fattened three or four fairly good steers for the spring trade, and had one or two coming on for the summer months; but the advent of dairying brought in another class of cattle, Jerseys, Ayrshires and Holsteins; and to-day it is difficult indeed to pick up a car of really good beef cattle. I do not mean to say that none are produced. Our Easter markets bring out as choice individuals as can be seen anywhere, but the general quality has been and is deteriorating, until now very much of what is offered is not even suitable for our own trade. The average steer is fully 200 pounds lighter than the average steer of five years ago, and choice animals cannot be purchased after the month of June. So scarce were they last summer that our local butchers found it necessary to look elsewhere for supplies, and from June 1st to Sept. 17th, eight carloads of cattle, worth about \$12,000, were imported from Ontario. This does not mean that a sufficient number of beef cattle are not being raised in Prince Edward Island to produce all the meat needed by our people, but it does mean that many of them are of such poor quality that our people will not eat the meat if better can be had, even at an increased cost. While we were importing, we also were exporting, and, between the above-mentioned dates, 788 beef cattle, valued at \$28,000, were shipped from this Province. Even here the lamp is not completely out. Good bulls—extra good bulls—are being brought to the Province, and young men are starting in with two or three good females, to build up herds. Our Province is particularly adapted to dairying, but there is no reason why we should not produce our own beef.

#### THE SHEEP BUSINESS REVIVING.

Let us turn now to the sheep industry. The census returns show that in 1881 we had 166,496 sheep; in 1891, 147,372; in 1901, 125,175, and our own Department returns for 1906 show only 71,470. The causes that brought about this decline in our own Province, operated throughout Canada, and with them you are familiar. The dogs have been greatly to blame. I know of many flocks in which the best were killed in this way, but I trust that before long our Government may see fit to afford some protection by the passing of a dog-tax Act. For each of the four years previous to 1906, between 13,000 and 14,000 lambs have been exported. In 1906 the number was increased to about 20,000. The dealers, however, complain that the quality has been steadily decreasing, and our local butchers say that the carcasses are, on an average, from 7 to 10 pounds lighter this year than last. This, however, is capable of easy explanation. Our people are recognizing the value of the sheep, and a very large percentage of the best lambs are not offered for export, but are sold for breeding purposes in our own Province. Our lambs, too, bring excellent prices, last year averaging from 5 to 5½ cents per pound, live weight. They are eagerly sought after in the markets of Boston and New York, where they command a premium of from one to two cents per pound over those brought from other countries. Our farmers are beginning to realize that this is a most profitable industry, and within a very few years it will have reached if not surpassed its former standing.

#### THE BACON INDUSTRY.

In the line of hog-raising, we are doing well. That is, we are raising from 45,000 to 50,000



St. Clair (14347).

Clydesdale stallion; bay; foaled 1906; sire Sir Humphrey; dam by Baron's Pride. First in two-year-old class and reserve for Cawdor Cup, Glasgow, 1908.

creamery reports to patrons, that the amount of creamery butter being used by patrons is increasing. I shall not go into the causes of this decline. That is another subject. I am only giving you the facts. You wonder now where lies "the hope." If you could come with me to a dairy meeting in Prince Edward Island, "the hope" would almost blind your eyes to the facts. Never before was information sought after so eagerly. The people are fully awake, and realize the gravity of the situation, and they are taxing the energy of the Department of Agriculture to supply them with speakers. Two or three years ago, the average number of farmers attending a dairy meeting would not go beyond a dozen. During the last three months I have been present at nine meetings, with an average attendance of 53. And this is not all. Scattered here and there over our Province are young men with excellent herds of Holsteins, Ayrshires and Guernseys. They are not complaining that there is no money in dairying, yet they have no special markets. They are patrons of our cheese factories and creameries. One man, whom I have now in mind, has four cows in his herd which last year gave over 50,000 pounds of milk. Another received over \$1,000 last year for the milk from his herd of 17 cows. Do you ask now, where lies the hope? Do you not know that one honest, earnest young man, full of hope, can save any community? The optimism of these men is infecting their neighbors, and changing the whole situation. They

hogs of the bacon type annually. The high prices of grain and potatoes are leading some of our farmers to market their hogs in anything but suitable condition, and the dealers are complaining. Our greatest difficulty is the production of a regular supply the year round. At present over 75 per cent. are marketed during the months of November and December. As regards quality, I need only say that thirteen out of fifteen prizes offered for bacon hogs at the Winter Fair, Amherst, came to this Province.

#### POULTRY AND EGGS.

The poultry industry is increasing in importance year by year. Only a short time since, the average dressed chicken weighed from two to three pounds, and brought from 25 to 30 cents on the market. Now, fair supplies can be obtained, from five to seven pounds in weight, at from 10 to 12 cents per pound. An unfattened chicken is now rarely offered for sale.

The egg production last year was about 20 per cent. below that of 1906. Up to that time it had been rapidly increasing, and it will continue to increase. In 1907 the prices ranged from 13½ cents per dozen, in June, to 18 cents, in September, and the total value was about \$250,000.

#### THE AUGURY OF IMPROVEMENT.

To you, listening to my story, the situation may seem discouraging; to me, it is full of hope. Our people are for the most part of Scotch descent, and inherit from their fathers the desire for education. The reason our industries have been declining is that our educational opportunities have not been determined by their requirements, but by a superstitious regard for what might be termed a brilliant past. The mind of the average Prince Edward Island farmer is active, and his application intense. When his labor has been intelligently applied in his business, his progress is rapid and certain. Let me illustrate. Three years ago, the good-seed movement on Prince Edward Island had its beginning. Previous to that time the seedsmen of Ontario had been sending us their fourth and fifth grade seeds, which contained a large percentage of weed seeds and dirt, and our people bought what they could buy cheaply. As soon as the results of the investigation carried on by the Seed Division were placed before them, they no longer asked for cheap seeds, but for the very best quality. Now they have gone a step further. They will this year meet Ontario seed in the markets of Nova Scotia and New Brunswick, and before five years have passed, Prince Edward Island seed will be offered for sale in the principal markets of Quebec and Ontario. Do not think this is only enthusiasm of youth or of narrow vision. I have placed the facts before you and stated my honest convictions. I know our Province, and I know our people and their requirements. The educational reform inaugurated by Dr. Jas. W. Robertson is already bearing fruit, and we are entering on an era of prosperity, the equal of which we have not previously experienced.

#### BRITISH COLUMBIA AS A MARKET FOR PURE-BRED STOCK.

(Address by Dr. S. F. Tolmie, of Victoria, B.C., before the National Live-stock Convention, Ottawa, in February, 1908.)

It was only a few years ago that one of our prominent politicians declared that British Columbia was nothing but a sea of mountains, not worth building a railway across. Apparently the eyes of the Easterner are being opened; he is beginning to realize that there are rich valleys between these mountains, and that even the mountains are yielding up their share of wealth to the man enterprising enough to go after it. Many changes have taken place since that famous statement was made. We have now one railway running across the Province from east to west, doing a thriving business. We have two others under construction in the same direction, and a fourth is expected in a very short time. British Columbia is on the eve of an era of prosperity such as she has never experienced before, and our Eastern friends may well turn their eyes westward, not only for a market for pure-bred stock, but for other products of the farm and factory that we may need from time to time.

#### LIVE-STOCK CONDITIONS AND VALUES IN BRITISH COLUMBIA.

Going into the subject of pure-bred stock, I will very briefly outline general stock conditions in British Columbia. This will place you in a position to better appreciate what I have to say. Stock conditions generally in British Columbia are in a very prosperous condition, in that satisfactory state for the stock-owner where generally high prices prevail and the demand exceeds the supply. The demand for heavy horses has been brisk until the temporary stagnation in the lumber market began. Since that time the demand has not been so great. Previous to that time it was necessary to import a number of drafters from Ontario and the Northwest Provinces at prices ranging from \$600 to \$1,000 per team. Light horses of good quality are always in demand, and sell from \$175 up, according to quality, and a number are imported from Oregon and Washington every year.

Dairying is making rapid strides on the coast. In 1897 the output of the creameries was 119,000 pounds,

which sold wholesale for 26c. per pound. In 1907 the output was 1,651,304 pounds, at 32 15-16 cents per pound. We still import \$2,000,000 worth of dairy produce annually. Good dairy cows bring from \$50 to \$75 each, and up. I consider the Fraser River Valley one of the richest dairying districts in this country. An important side line to the dairy business is the production of pork. Live hogs sell from 6c. to 8c. per pound. All are consumed on the block or sold to Chinese. We import thousands of dollars' worth of the cured products of the hog every year. No pork packing is done in British Columbia.

Nearly all the beef is produced on the range. No stall-feeding is practiced, owing to the high price of feed and the low price of beef. The practice of selling all beef off grass in the fall is one of the causes of the prevailing low prices, from 2½c. to 3½c. on foot. Arrangements could be made with advantage to carry on more winter feeding, as 4½c. and sometimes more is paid in the spring.

The quality of the sheep produced is excellent, but the industry has not been developed as it might be. This is partly due to predatory animals, and partly to the fact that nearly all of the open range tributary to the railway has been taken up by cattlemen, and the laws of the Province do not permit sheep grazing on these lands. Only a few range flocks of 1,000 head are kept. We consume 70,000 Washington sheep, 20,000 or 30,000 frozen Australians and a number from Alberta annually, and occasionally import a few carcasses from Prince Edward Island. Lambs sell from \$4 to \$6 per head; live sheep, 5c. to 6c. per pound; frozen carcasses, at 12c. to 13c. per pound.

#### BREEDS OF STOCK KEPT.

Nearly all the pure breeds of stock are represented in British Columbia. The Clydesdale is easily the favorite among the heavy-horse breeds, and a number are brought to the Province from Scotland and Eastern Canada every year. These horses sell from \$1,000 to \$3,000 each for stallions, and mares range from \$300 up, according to quality. Local ranch-bred Clydesdales, mostly from imported stock, raised under range conditions, sell for from \$400 to \$500 for stallions and upwards and less for mares. Clydesdales raised on farms at the Coast bring somewhat larger prices. A few Percherons of good quality are produced in the Province. A number of stallions from the United States have been syndicated of late years at prices ranging from \$2,000 to \$5,000 each. A few Suffolk Punches are bred, and give satisfaction, but are not increasing in popularity very fast. Only a few Shire stallions are to be seen. This breed has not been pushed in the past. The Standard-bred is the most popular light horse, and its representatives are of fair quality. I think the breeders might make the breed more popular if more attention were given to size, conformation, soundness, style and speed at the trotting gait. Stallions and mares sell from \$300 up, according to quality. Hackneys have become popular lately. Some excellent stallions, but few mares, are to be found. Stallions sell from \$1,000 to \$3,500, and mares sell from \$300 up, according to quality. Thoroughbreds are bred in some parts on a limited scale. With the climate of British Columbia very similar to that of the Old Country, these animals are produced to perfection, as is shown by their performance at California and Washington tracks. Retired racing stallions and mares can be purchased from \$150 up. A few French Coach stallions have been syndicated in the Province, at from \$2,000 to \$4,000 each. Shetlands are becoming quite numerous, and sell from \$100 to \$250, according to quality. Horses of first-class quality can be produced in any part of British Columbia. On Vancouver Island they can be grown to perfection. In the Fraser Valley they attain greater size than elsewhere, while the range-bred horse is famous for its flinty feet, wonderful muscles and great endurance.

The Fraser Valley and other parts of the Coast are particularly well adapted for dairying, and here we find the dairy breeds most numerous. Jerseys are very popular. There is a good demand for cows of this breed in the cities for family use, and in the creamery district. Pure-bred cows sell from \$75 to \$150; calves from \$35 to \$50; yearlings from \$75 to \$125. Ayrshires are fast increasing in popularity, and some very good individuals of this breed are to be found. Yearlings sell from \$60 to \$100 each, while \$350 has been paid for a single cow. Holsteins give great satisfaction. A few excellent herds are kept, and recently some valuable importations have been made from California and New York. About the same prices prevail as I have quoted for the other breeds. I think the Holstein breeders could push this excellent breed more, with great advantage in British Columbia. Guernseys have not made much progress, and are few in number. Red Polls are proving themselves very valuable in many parts. Nearly all the pure-bred beef cattle are produced in the range districts. This line of stock is gradually being dropped by Coast breeders.

For the big ranch range-bred bulls give the best satisfaction, as they are better accustomed to the conditions. Ask a ranchman how he likes an Ontario-bred bull on the range, and he will tell you he is no rustler. He does not take well to the range grass, and when the snow flies he humps up his back and hangs round the buildings looking for feed, or, as a cowboy aptly described it to me in Kamloops, "he humps up his back, his hair stands on end, and he looks about as lonely and homesick as a Hindu in Vancouver."

On account of his superior rustling abilities the Hereford is preferred on the big ranch. On the smaller ranches, where winter feeding is carried on, the farm-bred bull gives better satisfaction, and as the ranges

are cut up and settled, this form of cattle raising will come more into vogue. On these smaller ranches the Shorthorn is preferred to the Hereford, on account of his greater size and earlier-maturing qualities. These two breeds are used almost altogether in the beef-breeding districts. Polled Angus and Galloways are rare. A herd of West Highland cattle has been established during the last year. Range-bred bulls sell from \$60 to \$80 for yearlings, with a somewhat better price for those of extra quality. A car of good Washington-bred Herefords was sold last year at \$100 a head, delivered at the ranch. There are some establishments in the Province breeding these range bulls on a large scale, but they do not quite fill the demand, and I am informed by some prominent cattlemen that there will be a market for a few carloads of good Herefords and Shorthorns around Kamloops and in the Nicola Valley next May.

Some excellent pure-bred flocks of sheep are kept, nearly all breeds being represented. Oxfords and Shropshires are the favorite breeds. Lambs sell at \$15 to \$25; yearlings, \$25 to \$50; ewes, \$20 to \$35.

Berks and Yorks are the most popular breeds of swine, though many other breeds are represented. Owing to market conditions little attention is paid to bacon types. Six-month-old boars fetch \$15 to \$20 and up, according to age and quality.

There is a limited but growing market in British Columbia for good herd-headers and first-class females of all the breeds represented there, at considerably better prices than what I have quoted for good animals, but I would like to advise all who anticipate taking advantage of that market, no matter what class of stock they are handling, that they should get in touch with the prospective purchaser first, and dispose of the greater part of their consignment on order, rather than to ship that great distance on the chance of securing a market for their stock.

#### MISTAKES, COMPETITION AND OPPORTUNITIES.

My remarks would be of little value to the breeders here who expect to market stock in British Columbia if I did not point out some of the mistakes of the past. Judging from some shipments sent to British Columbia, Eastern breeders seem to labor under a misapprehension as to what is good enough for that Province. While we have received some very excellent animals which have proved of great value to our herds, others have been far short of the mark, and I doubt if good judgment was displayed in shipping animals which never should have escaped the veal stage of their lives, to a new and developing market. I think, in many cases, the animals did the vendors more harm than the benefits that would be derived from their sale. Owing to the great distance between the buyer and seller, the British Columbian has to depend on the word of the vendor to a great extent. He has to buy a "pig in a poke" as it were. I regret to say that the buyer has not always found the stock up to his expectations. For example, a prominent dairy breeder made a small importation of highly-recommended females from the East, for which he paid a good price, and did not get one good one out of the shipment; all were sacrificed on the block after a fair trial. In another case a much-lauded bull was sent out to head one of our prominent herds, and in competition with a very medium field of locally-bred stock at a spring show, he was placed fourth in a class of five by an Eastern judge, and on being put up at auction afterwards his owner did not receive a bid on him. Another cause of dissatisfaction with Eastern stock has been that a number of animals have developed symptoms of tuberculosis shortly after their arrival; large percentages of some shipments being affected with this disease. In one case a valuable cow, which had been shipped out at a high price, died from tuberculosis within six months after her arrival. In other cases animals have had the T stamp on their ear, showing that they had been rejected by the Government test. It is useless to ship animals of that kind to British Columbia, as the Provincial Government inspectors have been instructed to quarantine any animals appearing with this mark. Naturally, these results have created an impression that some Eastern breeders are looking on British Columbia as a dumping ground for stock they cannot sell at home, and a feeling of distrust is perceptible in some quarters.

In catering for the market in British Columbia the herds and flocks of Oregon, Washington, California and Idaho will have to be considered as competitors. Within a few hours' ride from our southern borders personal selections can be made from breeding farms of repute in those States, and a double advantage gained by having the tuberculin test applied by Government officials, and the purchaser assured that he is not introducing disease into his herd. A greater number of breeders have been replenishing their herds in that direction of late years.

From what I have said already you will notice that we have not entirely escaped the stallion-syndicating evil. While some of the horses sold in this way in British Columbia at long prices were good, others have been very poor specimens, and in some cases affected with hereditary unsoundness. While legislation might assist in protecting the farmers against this evil all over the Dominion, still I think a great deal more can be accomplished by education.

I would like to see this matter of hereditary unsoundness pushed at every stock-judging class in the country where the horse is the subject under consideration. I think it would have the effect of increasing the value of the horse stock of the country in a very short time.

#### SHEEP HUSBANDRY NEEDS ENCOURAGEMENT.

One of the most urgent needs in British Columbia

in the live-stock line is the stimulation and encouragement of sheep-breeding. We are spending nearly half a million annually for mutton from outside points, while large areas of this Province are well adapted for sheep-raising. The presence of the coyote is largely to blame for this in many districts. His presence makes it necessary to herd all large flocks in the daytime, and closely corral them at night, adding greatly to the expense, and even under these conditions some flock owners report heavy losses from them. It is estimated in Oregon that coyotes destroy 150,000 sheep every year, and the Government of that State has recently issued a bulletin on the best methods of ridding the State of this pest. Old Mexico has almost got rid of the coyote by systematic poisoning.

The dissemination of information along these lines among the stockmen in the coyote-infested districts, and the increase of the bounty by the Government, would, I think, be money well spent.

Large sums of money are also sent out of the Province for other live stock and farm produce, while land suitable for the production of far more than we can at present consume is lying undeveloped. The Governments are making strong efforts to encourage agriculture and live stock, but I think greater interest might be shown by our Boards of Trade and other bodies of business men in the agricultural advancement of the Province with good results. The beginner in agriculture should be given every encouragement in the disposal of his produce, and the preference whenever possible be given to local production. A little effort should substantially reduce these leaks, and in time stop them altogether, and conserve for the farmers and merchants of the Province something over a million dollars a year that is now almost entirely lost to them.

#### SHORTHORN RECORDS.

Editor "The Farmer's Advocate":

In your editorial of March 19th, advising a Record of Dairy Performance for Shorthorns, there are some sentences which require some explanation, in order to enable ignorant persons like myself to understand what is meant. At end of second division you say, "It is not form, but capacity to perform, we are after to-day." That is followed at the top of third division with, "While on this subject again, let us once more emphasize that the call is not to sacrifice beef type and turn undivided attention to milk, but rather to retain the beef type and the beefing proclivities, and to develop in cattle of this type a liberal degree of milking capacity."

Pray, what is form, but type? If form is to be discarded, and capacity to perform in filling the milk pail be the chief consideration, how will you produce the animals with the form and the power to transmit that shape which we must have to give us the bullocks with the kind of body to satisfy the meat-cutter and his customers, in furnishing a proper percentage of high-class and high-priced cuts?

It appears to me that there is great danger at present to Shorthorn interests, and that the breed's admirers have to be on their guard—not the ones of long-time experience, but those who are getting their start in herd-building. The older breeders, from profitable experience, know the good thing in their possession, and will not be tempted to lose sight of form, or sacrifice it in attempting to turn their herds into dairy type, in order to rival the dairy breeds.

While the show-yard has caused some breeders to give their closest attention to the perfection of full-fleshed form, the large majority of Shorthorn cattle in our Province at present lack in form and flesh, and many of them could be much improved by the addition of a tendency to so use their feed as to better their type, from the block standpoint. We have, in some parts of our Province, Shorthorn cattle—registered ones—bred along dairy type, and kept in dairy-cow condition of flesh, which are no credit to the breed or breeder, and most certainly are not a profitable kind to have in the field or stall.

At the Ottawa Winter Fair we saw specimens of fat steers, bred and fed along such lines, on exhibition. Their form and condition were such as might please the dairyman, but woe to the people who endeavored to eat that beef from said steers, as later on, placed on exhibition.

The idea of ever leading Shorthorn breeders to endeavor turning their herds into dairying machines belongs to some very hopeful body. How many of them in our Province will be induced to take up the task of milking their cows and hand-feeding the calves, in order to find record-breakers along a line which is but a secondary consideration, after all, so far as Shorthorns are concerned? It is too pleasant and profitable an occupation to stand aside and watch the calves helping themselves, saving us so much hard labor, while they are constantly growing the dollars for us. The cow or heifer which furnishes milk in such abundance as to grow, month by month, the strong, vigorous, full-fleshed calf while she is struggling in flesh, is a good enough proof to the interested observer that a profitable combination of tendencies to produce beef and milk is present in her make-up. That is the best record of performance which any breeder can secure

in breeding Shorthorns, and is also the surer test for the purchaser of the young bull, who aims at getting one to produce for him the dual-purpose cow.

Kindly explain, Mr. Editor, what and who are meant, in your fourth division, where you state, "But the dual-purpose cow must occupy the field which certain dairy authorities have been kind enough to reserve for the special-purpose beef cow." Who are the kind ones?

Lower down, you have, "It is a very bold beef-making experimenter who will claim that the average beef-bred male calf could be purchased at birth for over five dollars, and reared for beef, to show a living profit over cost of food consumed." Quite true the statement is. It is the whole truth, and nothing but the truth; just as true as that the average dairy cow does not pay for the feed she consumes. The fault is not with the beef animal, nor the dairy cow; but the people who breed and own them are the guilty ones.

We can and do breed, feed and finish beef cattle which pay well for the feed consumed, and many dairymen can say the same of their herds. It is done by specializing along right lines, not by attempting to make dairy cows out of our Shorthorns, nor by using Hereford bulls on the Holstein or Ayrshire grade cows while seeking to produce the 10,000-pounds milk cow.

A few years ago, in Prince Edward Island, an opinion was urgently asked regarding a Shorthorn bull of the dairy type, which had been purchased to use in a fairly good dairy herd of mixed breeding. Reluctantly the statement had to be made that, while the cost was fifty dollars, the actual value was less than nothing. The animal had a typical pair of horns, but all else was scrub type, from end to end. That was a case of where "Not form, but capacity to perform," was sought for, as you state.

The losing sight of the main object in growing stock, which should be the securing of the largest possible profitable returns from the feed and care given, is causing untold loss annually. If stockmen generally would, as some now do, be determined to breed and raise to maturity none but the best of the kind they produce, we would not be troubling ourselves with seeking to become rivals, but would encourage each other to still further our prosperity.

JOHN CAMPBELL.  
Victoria Co., Ont.

#### RATIONS FOR PIGS AND CALVES—CEMENT FLOORS.

1. Have a number of small pigs, from 3 to 4 months old. My feed supply consists of pulped roots; ground corn, at 72c. a bushel; barley meal, at 67c. a bushel; good shorts, at \$1.25 per cwt.; bran, at \$1.15 per cwt.; oat chop at 46c. a bushel. Give best way of feeding the same.

2. For young calves, feed consists of chopped corn, barley, oats (chopped and whole), bran, oil cake, roots and mixed hay, with skim milk. Kindly give best mixture from above feed.

3. Have a registered Shorthorn bull, 2 years and 10 months old, weight 1,750 pounds. Give most suitable feed to produce growth. He is worked heavy through the breeding season.

4. Hogpen, 24 x 60; I wish to put in cement floors this summer, also cement troughs. Would like if you could give me some information as to amount of gravel and cement it would require; also what proportions of each should be used, also best plan of making the troughs.

R. T. M.  
1. To me it looks as if the cheapest foods in this collection are the corn and shorts. The bran, of course, is not high-priced, but it would not be suitable for feeding to these young pigs, unless it were used in a very small quantity. A mixture of about four parts of shorts and one part of corn would make a very good mixture to start with, and then, if thought advisable, the corn could be gradually increased, though I think it would be advisable to continue the use of the middlings throughout, as they look like good value for the money, as compared with the other foods.

2. It is somewhat difficult to make a selection from this list and say that it is better than any other selection which might be made. There are so many foods mentioned here which will answer the purpose of feeding calves that it is somewhat hard to say just which would be best. I would not advise feeding very much oil cake with skim milk, but would be inclined to use the corn and oats quite freely. A mixture of ground corn, and either whole or ground oats, should work in very nicely with skim milk. But both these foods, as a rule, are relished by calves, and this is another advantage in their favor. A little bran possibly might be introduced in the mixture, but I do not think it would be necessary. I would not care to recommend barley for very young calves. Roots, of course, are always good, and should be fed as freely as the calf will take them; and hay is necessary to give bulk to the ration.

3. This bull weighs very well for his age, and should get along well on the rations mentioned. A mixture of oats and bran, about equal parts by

bulk, together with clover hay and a few roots, if they are available, should give excellent results as a ration for this bull. Would not advise feeding very much oil cake unless the bull were being fitted for show purposes. The oats, bran, clover hay and roots will furnish abundance of nutritious food, without oil cake.

4. The amount of gravel required for a cement floor is not materially lessened by the cement that is used, because the cement simply fills in the spaces between the particles of gravel or sand, and adds very little to the bulk. Therefore, to get the number of cubic yards of gravel, if we assume that the floor is to be four inches thick, we would multiply the length by the width, and by the thickness in feet, which would give us the cubic feet. For instance, since the pen is 24 x 60 feet, the cubic feet would be 24 x 60 x 1-3 = 480 cubic feet. This, divided by 27, would give the cubic yards of gravel. The proportion of cement to gravel will depend largely upon the kind of gravel and sand that are used in making the floor. If the gravel is clean and of extra good quality, and the sand is sharp, with no earthy material in it, less cement is necessary than if the gravel and sand are not so clean. Where about one of cement is used to eight parts of gravel for the grout, and about one of cement to three of sand for facing, it would probably require about fifteen barrels of cement for each one thousand square feet, counting grout three inches thick, and facing about three-quarters of an inch thick. A very good shape for a cement trough is one having the front not more than three and a half inches high, and sloping slightly from the top to the bottom inside, making the front of the trough a little thicker at the bottom than at the top. The bottom of the trough may be about eight inches wide, and flat, and the part next to the passage should, of course, be vertical, and is better if eight or ten inches high. The cement trough is usually made by making a mould the shape of the trough and the size of the outside measurement of the trough; then a core is made, which is set inside of this frame or mould, and the cement filled in between the core and the mould. In this way, the trough can be made any shape desired.

Ontario Agricultural College. G. E. DAY.

#### A WORD WITH HOG-RAISERS.

Editor "The Farmer's Advocate":

The producers of hogs in Ontario, perhaps more than those interested in any other line of farm products, have felt the effects of trade depression during the last few months. They have been confronted with abnormal conditions. The high prices of the last few years found them with large stocks of hogs. The partial failure of crops, and the exceedingly high prices of coarse grains and millstuffs, coupled with a disastrous fall in prices, stampeded a large number out of the business, and even the steady, cool-headed ones who stayed in have had their faith and courage severely tried by the conditions during the months of winter. The depression in trade threw thousands of men out of work in all manufacturing centers everywhere, and especially in the United States. As a consequence, consumption has been restricted to probably not more than 75 per cent. of normal, and receipts of hogs at the great receiving points have been very large, owing to farmers forcing breeding sows, half-finished stuff and young pigs on the market. The tide has now turned; public confidence is being restored, and we are slowly returning to normal conditions. The stocks of hogs have been so reduced in all producing countries that it is only a question of a short time when an actual scarcity will develop. Now is the time to cull out inferior breeding stock and replace it with superior stuff at moderate prices. The problem of economic feeding during the next few months is of especial importance, owing to the still high prices of all hog foodstuffs. Market conditions need to be carefully studied, and the prices of different feeds taken into consideration. Under present conditions, it is not necessary to say anything of the danger of overfeeding, but, with the average man, the tendency will rather be to parsimony. Many will just attempt to keep their hogs alive until after harvest, and this, especially with spring litters, is a very costly policy. Under present conditions, the use of green foods, either for pasturage or for cutting and feeding in the pens, is of especial importance. Owing to the scarcity of farm labor, saving of manure, and superior health of the animals, I am decidedly in favor of pasturing during the summer months.

Fortunately, the red clover was a fair catch last summer in most of the country, and has come through the winter in excellent condition. Where alfalfa is grown, it is perhaps the best forage plant we have for hogs, and these plants give the best returns in gain when fed along with a little corn and whey, the nitrogenous clovers balancing up well with the carbonaceous corn.

Where clover is not available—and, unfortunately, some sections lost their clover—a good plan is to make a mixture of say 1½ bushels peas, 1 to 1½ bushels oats, and 3 pounds of rape, per acre,

sowing as early in the spring as it is safe to sow. If the plot could be divided into several portions, so that one part could be growing while another is being pastured, we get very much better results, as I find that this mixture does not stand the tramping and biting as well as clover pasture. This pasture may be turned into when 8 or 10 inches high.

For later pasture, I do not know of anything in this country that will give as much value per acre as rape. Any soil and treatment that will give a satisfactory yield of turnips will give an excellent yield of rape. While rape may give fair returns when sown broadcast, without cultivation, it will give much better results when sown in drills and kept well cultivated. Rape responds to cultivation perhaps better than any plant that we grow, with the exception of corn. In pasturing rape, it is advisable to have a grass plot adjoining, so that they can go to the rape when they choose. I have known of disastrous results where hogs were confined closely on rape, without other food.

While appreciating thoroughly the value of clovers and other green foods in economic hog-production, I think many farmers will make a serious mistake by trying to carry their hogs through to harvest time without any other food. We are pretty certain to have a decided shortage in receipts during June, July and August; then, later, a falling off in prices, with larger receipts. A drop of \$1.00 per cwt. in live weight on a bunch of hogs weighing, say, 200 pounds, even at present prices of grain, would pay for enough grain to finish quite respectably well-grown hogs on pasture.

Looking at it from another standpoint, I am satisfied that, with grain at present prices, where grain is moderately and judiciously fed, with pasture, a pound of gain will be made more cheaply than where the hogs are confined to pasture alone. I believe in feeding the spring pigs twice a day on pasture; fall litters at least one good full meal of grain a day.

Elgin Co., Ont.

T. H. MASON.

## THE FARM.

### THE SPREAD OF NOXIOUS WEEDS IN ONTARIO.

Editor "The Farmer's Advocate"

Ontario farmers are becoming more and more alive to the fact that the terms clean farming and

weeds, but simply to mention the means by which they are being introduced, and to call attention to a few of the new bad weeds that are gradually spreading over the Province.

#### HOW WEEDS ARE INTRODUCED.

The chief means by which weeds are being introduced at the present time are: First, as impurities in clover, grain and grass seed. During

recently been introduced from Europe or the Northwest, and have not yet become very widely disseminated. A few of the worst of these are described below:

**Cow Cackle** (*Saponaria vaccaria*).—This is an annual weed of the Pink family, introduced from Southern Europe. It is a troublesome pest in grain fields in Manitoba and the North-western Provinces. This year it was found in several localities in Ontario. It is a smooth, succulent, glaucous plant, from 1 to 2½ feet high. The flowers are pale pink, and about ½ inch in diameter. The calyx is conspicuous, being five-ribbed, and much inflated and wing-angled in fruit. The seeds spherical, about 1-12 of an inch in diameter, dull black in color, with minutely-roughened surfaces. They are frequently found in screenings from the West.

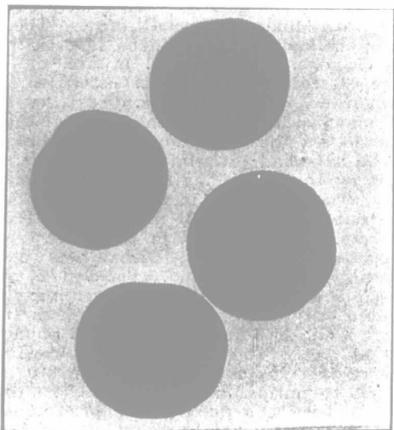
**Field Peppergrass** or **Cow Cress** (*Lepidium campestre*).—This is a weed introduced from Europe, and up to the present time rare in Ontario, occurring only in a few localities. This past season, however, samples of it have been sent to the Botanical Department of the Ontario Agricultural College from various parts of the Province, and it now appears to be quite widely spread. It is an annual or biennial weed, from 1 to 2 feet high, freely branching above. The lower leaves are oblong and entire. Those of the stem are spear-shaped, entire or slightly toothed and clasping the stem by their arrow-shaped bases. The seed pods are broadly ovate, boat-shaped, being rounded below and hollowed out above. They stand out stiffly from the stem on pedicels of about their own length. The seeds are reddish-brown in color, one-twelfth of an inch long, sharply egg-shaped, rounded or somewhat flattened, and the surface is granular and somewhat scurfy. This seed is often found as an impurity in clover seed.

**Yellow Rocket** (*Barbarea vulgaris*).—This is another plant which has been reported as a weed from several localities in Ontario during the past year. From the inquiries which we were able to make, it appears to have been spread as an impurity in red clover seed. In many instances correspondents have mistaken it for Charlock. It belongs to the mustard or cress family, but, if examined at all closely, is easily seen to be very



Great Ragweed

(*Ambrosia trifida*).



Cow Cackle

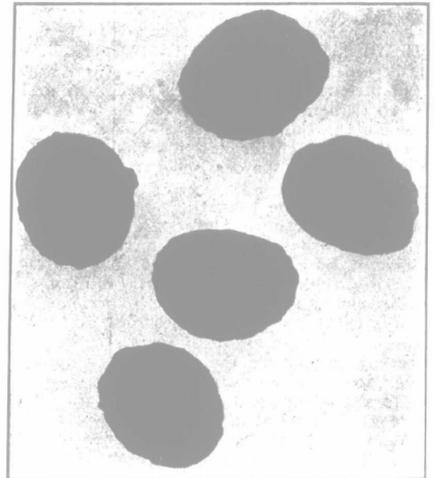
(*Vaccaria Vaccaria*).

successful farming are almost synonymous. Crops must be kept free from weeds in order to secure the largest returns for the time and labor expended upon them. Weeds are a source of great loss, as they increase the amount of labor required for every operation in the cultivation and marketing of a crop. Realization of these facts has led to the adoption of various systems of cultivation for the control and eradication of weeds. In spite of this, however, it is undoubtedly true that noxious weeds are spreading very rapidly in the Province. This is largely due to two main causes: First, at the present time a large number of new weeds are being introduced from the Northwest and from Europe, by various agencies which will be mentioned later; secondly, that too many farmers have only a limited knowledge of weeds and weed seeds, and are hence unable to recognize dangerous impurities in their clover, grass or grain seed, or pernicious weeds, when they first appear in their district. It is thus seen that, if the spread of noxious weeds is to be checked, steps must be taken to prevent their introduction into the Province, and our farmers must keep themselves posted as to the nature of the new weeds which are spreading through it, in order that they can recognize and destroy them if they do appear in their district. In this article, it is not the writer's intention to suggest measures to prevent the introduction of

the past year, at least one new weed has been introduced into Ontario from Europe as an impurity in alfalfa seed, and two other weeds but little known up to the present time, widely spread throughout the Province as impurities in red clover seed. Secondly, many new weeds are being introduced through the agency of Northwest screenings and millfeed made from Western grain. Thirdly, railways are a great medium through which weeds are being brought into the Province. Especially is this the case now that our trade with the great Northwest has become so extensive. Carloads of grain and stock from the West are constantly being unloaded at all our more important stations, and grain, litter and fodder containing numerous weed seeds scattered over the tracks. Thus it is that we find so many new weeds along the railroads, which, if not destroyed, soon spread to neighboring farms. Other agencies active in the introduction of weeds might be mentioned, but the foregoing are probably the most important.

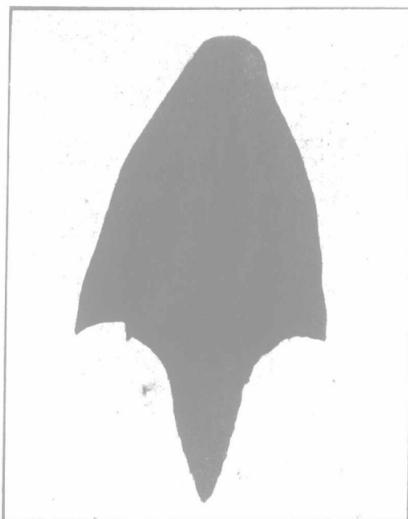
#### NEW WEEDS.

There are many injurious weeds in Ontario which are but little known. Most of these have but



Ball Mustard

(*Neslia paniculata*).



Great Ragweed

(*Ambrosia trifida*).

different from Charlock, which it resembles only in the color of its flowers. It is not nearly so rough and coarse a plant. The leaves are smooth and shiny, dark-green in color, and somewhat oval in shape. The lower are petioled and much divided, the terminal division being much larger than the lateral ones. The upper leaves are sessile and slightly clasping. The seeds are somewhat flattened, and more or less oblong in form, the two faces being unequally curved. The surface is dull and roughened, and the color is light brown. This is an annual weed, and is not likely to prove very troublesome.

**Ball Mustard** (*Neslia paniculata*).—This is a weed troublesome in the grain fields of the Northwest. In Ontario, at the present time, it is found only along railways, but there is danger of its spreading to neighboring fields and becoming a pest. It is an erect, slender, strong-growing plant, with long racemes of small, yellow flowers. The basal leaves are lance-shaped, the stem leaves arrow-shaped and clasping at the base. The seeds are yellow, but remain enclosed in the spherical pods which, when ripe, are wrinkled and veiny, and about 1-10 of an inch in diameter. They are very inconspicuous objects in seed grain or screenings, and are often overlooked.

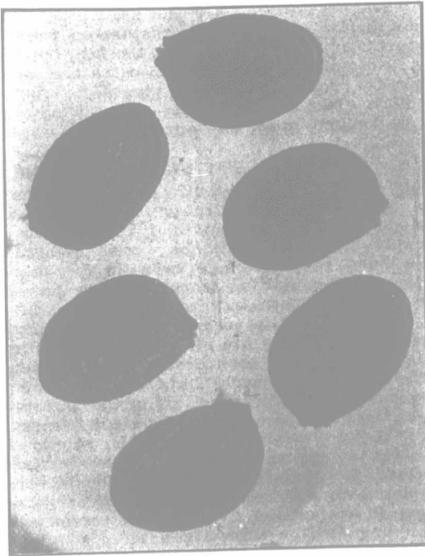
**Tumbling Mustard** (*Sisymbrium altissimum*).—This is another Western weed which, at present, is found abundantly in Ontario only along rail-

ways. It is one of the worst weeds of the prairies of the West, where, on account of its tumbling habit, it is spread far and wide by the wind. Tumbling mustard is an annual or winter annual. It is a freely-branching plant, and grows from 1 to 3 feet high. The basal leaves are oblong-lanceolate, hairy, and deeply-toothed. The stem leaves are much divided, and fall away when the plant ripens. The flowers are small and pale yellow in color. The pods are narrow, about 3 inches in length, and somewhat four-sided, each containing numerous seeds. The seeds are very small, being less than 1-20 of an inch in length. They are light yellow to yellowish-green in color, and somewhat oval in shape, with both surfaces slightly grooved.

**Penny Cress or Stinkweed (Thlaspi arvense).—**Though this weed is by no means new to the Province of Ontario, it is worthy of attention here, as it is being widely spread as an impurity in clover seed. Every year it is reported from some new section of the Province. Careful watch should be kept for it, as it is a very free seeder, and the seeds have great vitality, and may remain in the ground for some years. Stinkweed is a winter annual, belonging to the mustard family. It is considered to be the most troublesome of all the weeds in the grain fields of the West. It is a foul-smelling plant, from 1 to 2 feet high, bearing smooth, dark-green, sessile leaves and clusters of small white flowers which develop into orbicular pods. These are flat, notched at the top, and about half an inch broad. The seeds are about 1-14 of an inch long, flat, irregularly oval, dark brown to black in color, with regularly-arranged curved lines on both surfaces.

**Great Ragweed (Ambrosia trifida).—**This is a large, coarse-growing native weed of the sunflower family, very common in Manitoba grain fields, and now quite frequently found on roadsides in Ontario. It is not, however, likely to ever become a serious pest, being an annual, and very conspicuous. It grows from 4 to 8 feet high, and bears large, rough, three-lobed leaves. The flowers are monocious, the staminate ones being borne in long slender spikes at the end of the branches, and the pistillate ones sessile in clusters in the axils of the leaves at the base of the

impurity in alfalfa seed. At a little distance, this weed is easily mistaken for wild mustard, which it resembles closely in habit of growth and in color of flowers. It requires only a glance, however, to distinguish it. The leaves are more or less deeply pinnately lobed. The flowers are a lighter yellow, and the petals are distinctly veined with purple. The pods, too, are very dif-



Penny Cress or Stinkweed  
(Thlaspi arvense).

ferent from those of mustard, their upper third being a flat, empty beak.

**Common Ragwort or Staggerwort (Senecio Jacobaea).—**This weed, though probably reported in Ontario before, has never been sent in to the Botanical Department for identification until the past year. It is the weed which has caused so much alarm in Nova Scotia and Prince Edward Island. It is a very dangerous weed, as, when eaten by cattle, it causes a curious and fatal disease of the liver (hepatic cirrhosis). For this reason, a sharp lookout should be kept for it, in order to destroy it before it becomes established. It is easily recognized, being a large, much branched, strong-growing plant, about two or three feet high. The flowers are in numerous heads in corymbose clusters, bright yellow, and very showy. The root leaves are 6 to 8 inches long, petioled. Stem leaves sessile and clasping, all leaves dark green, deeply twice pinnatifid, the segments crowded and overlapping, crisped and wavy.

The object of this article is to call attention to the danger of the introduction of new weeds, and to aid those to whom clean farming is essential to success to distinguish those new weeds which in the future are most likely to become serious pests; for if they are to be prevented from becoming established, they must be attacked and destroyed wherever they appear.

J. EATON HOWITT, M. S. A.  
Demonstrator in Botany,  
Ontario Agricultural College.

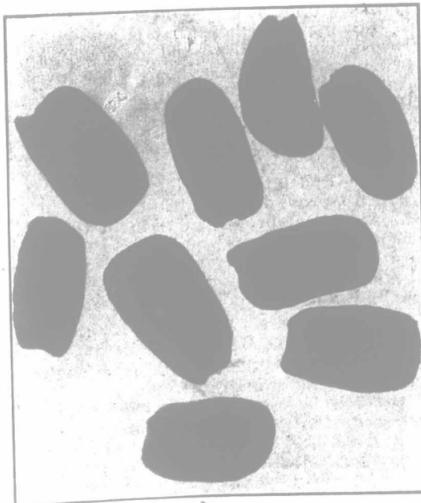


Orange Hawkweed  
(Hieracium aurantiacum).

spikes. The seeds (Akenes) are about 1/4 of an inch long, urn-shaped, with a tapering beak, around which are arranged 6 or 8 blunt spines. These seeds are very common in wheat screenings from the West, and are said to be very difficult to separate from the grain, owing to their similarity in size and weight to wheat.

**Orange Hawkweed (Hieracium aurantiacum).—**This is another weed of the sunflower family. It has been common for some time in the Eastern part of the Province, and is now gradually spreading westward. It is of European origin, and a bad weed, being a low-growing perennial, spreading by runners as well as by seed. It is a serious pest when it gets into meadows or pastures, as it spreads very rapidly and soon crowds out the grass. It is easily recognized by its bright-orange-red flowers, borne in corymbose clusters at the top of simple, leafless stems from a foot to eighteen inches high. The leaves are all basal, and resemble somewhat the basal leaves of Blue-weed (Echium vulgare). The seeds are frequently found in clover seed. They are torpedo-shaped, about 1-12 of an inch long, and ribbed. Ripe seeds are dull jet-black in color, unripe seeds deep red.

**Eruca sativa.—**This is a weed so new that it has not as yet been given a common name. It appeared in Ontario for the first time this year, and, judging from the reports concerning it, is likely to become a serious pest. It is a European weed, and was undoubtedly introduced as an



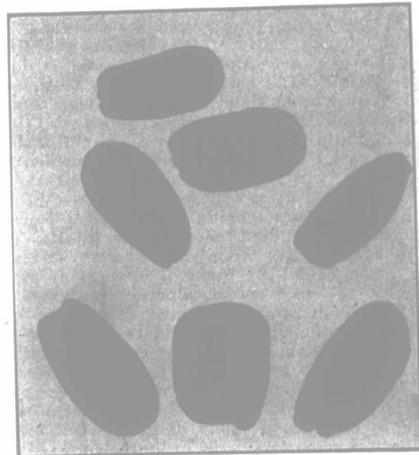
Hare's-ear Mustard  
(Coriaria orientalis).

SPREADING MANURE WITH A HARROW.

Editor "The Farmer's Advocate":  
Often, when passing wheat fields, it is noticed that the wheat comes up "bunchy," afterwards ripening unevenly, so that the farmer finds much "shrivelled" wheat in his bin. Many claim this to be due to uneven spreading of the manure. It may or may not be this. It is the custom with many farmers to draw their manure out and leave it in small heaps, where it usually remains until it is so dried together that it is very hard to spread, and often no "job" can be made at all. Often a heavy rain will help immensely, but yet it has that tendency to stick to the fork. All this trouble may be avoided by taking a common diamond harrow, and fastening with a chain or wire two of the pieces behind the other two, and then driving along the rows, once up and once down, which will break up the heaps. Then put the four pieces side by side, and go over it all crosswise. Once may not be enough, though sometimes the second stroke drags it too much together again. Judge for yourself which is best. The horses and harrow will now have done their work, and a man with a fork will have to go over it all and scatter it wherever necessary, for the harrow does not get it all over. One hundred and fifty to two hundred loads may be spread in a day and a half, and as good work will be done, usually, as with a manure spreader. A. J. S.  
Waterloo Co., Ont.

PERMANENT PASTURES.

"Permanent pastures," writes Prof. C. A. Zavitz, of the O. A. C., "have never occupied as prominent place in the agriculture of Ontario as they have in the agriculture of Great Britain. The scarcity of labor and the great development of our live-stock industry are factors which are causing some of our most thoughtful farmers to consider the advisability of securing a first-class permanent pasture, instead of relying so much on timothy for pasture purposes. Fields which are located long distances from the farm buildings, or which are difficult to work on account of the presence of steep hillsides, crooked rivulets, low spots, etc., might be converted into permanent pastures, and thus prove of great economic value."



Tumbling Mustard  
(Sisymbrium altissimum).

This arrangement would not interfere materially with the regular crop rotation of the farm. From more than twenty years' work in testing different varieties of grasses and clovers, both singly and in combination, I would suggest the following mixture for permanent pasture on an average soil in Ontario: Alfalfa, 5 pounds; alsike clover, 2 pounds; white clover, 2 pounds; meadow rescue, 4 pounds; orchard grass, 4 pounds; tall oat grass, 3 pounds; meadow fox-tail, 2 pounds; and timothy, 2 pounds; thus making a total of 24 pounds of seed per acre. These varieties are all very hardy. Some of those used in Great Britain are not permanent in this country. None of the smaller-growing varieties, such as the blue grasses and the bent grasses, are mentioned, as there is scarcely a farm in Ontario in which the Canadian blue grass, the Kentucky blue grass or the red-top will not grow naturally. The varieties here recommended are strong, vigorous growers. Some of them produce pasture very early in the spring, and others later in the season. Most of the varieties are superior to timothy in producing a growth during the hot, dry weather which occasionally occurs in the months of July and August. The seed can be sown in the early spring, either alone or with a light seeding of spring wheat or of barley. Such a mixture as this, when well established on suitable land, should furnish a pasture, abundant in growth, excellent in quality, and permanent in character."

## GROWING AND SAVING ALFALFA FOR HAY.

Editor "The Farmer's Advocate":

The growing of alfalfa has engaged the attention of a few farmers in this Province for a good many years, with varying success. As a rule, the first attempts did not prove successful, owing to a want of knowledge as to the proper manner of handling it. Experience has shown that, on suitable soils it can be grown with as much certainty as red clover, over which it possesses the advantage of being a perennial, instead of a biennial, yielding heavier crops and possessing a much higher feeding value.

## KIND OF SOIL.

Alfalfa delights in a good dry clay loam, free from dead water in the soil, but good crops are found growing on both heavy clay and light sandy soils, but they should contain an abundance of lime. The soil should be free from hardpan, so as to permit of the roots penetrating deeply into the ground; the land sufficiently rolling to carry off the surface water, so that it will not stand and freeze around the crowns of the plants.

## PREPARATION.

The preparation of the land is similar to that for securing a good catch of red clover; land that is clean, and rich in plant food, such as we have after growing a crop of corn or roots, is ideal. We do not plow such land, either in the fall or spring, but work up in the spring with the spring-toothed cultivator or disk harrow, followed by the common harrows, so as to make a fine seed-bed.

## SEED.

Secure the best seed possible. Much of the seed sold contains noxious weed seeds, and is of low vitality. Secure seed grown as far north as possible; if grown in your own neighborhood, so much the better. Much of the seed sold in this country is produced on the irrigated lands of the South-western States. This seed may germinate and grow very well the first year, but the plants do not stand our hard winters as well as those from northern-grown seed.

## NITRO-CULTURE.

On much of the land in Ontario, when alfalfa is first sown, it does not grow well, owing to a lack of nitrogen-gathering bacteria in the soil. This will be shown by the weak, sickly appearance of the young plants and an absence of nodules upon the roots. Sometimes people are misled by the fact that an abundance of nodules are found upon the roots of red, alsike and white clover grown upon their farms, and they rush to the conclusion that the same results will follow in sowing alfalfa; the bacteria that work upon those clovers are distinct from those which work upon alfalfa, but it has been found that the bacteria that work upon the sweet clovers (*Melilotus alba* and *Melilotus officinalis*) will also work upon alfalfa. This will account for alfalfa doing well in some places when first sown. The sweet clover often takes the form of a weed along the roadsides, the soil becomes permeated with the bacteria, which spread to the adjoining farms; the vehicles take up the soil in the form of mud, which is carried sometimes for miles; when it is deposited on the ground, the bacteria on the inoculated plants commence to multiply, the same as in the case of yeast that is mixed in flour, and the whole becomes a mass of germ life. Instead of going to some roadside or old alfalfa field to get a supply of bacteria, which would entail considerable labor in hauling soil, and at the same time run the risk of introducing noxious weeds, this culture can be obtained from the Bacteriological Department of the Agricultural College, Guelph. The price is 25 cents for enough to treat one bushel of seed; instructions are sent telling how to apply it. I have found that in some cases farmers did not pay enough attention to the instructions, or perhaps did not properly understand them. Those bacteria are small plants, invisible to the naked eye, and are grown upon gelatine. Some have thought that it was necessary to have this mass of gelatine dissolved and mixed with the seed. This is a mistake. Where they attempted to dissolve the gelatine and apply it to the seed, it proved a failure. In the first place, it is not necessary, and, in the second place, gelatine is not soluble in cold water. The result was that the gelatine caused the seed to roll up into balls, and those clogged the cups of the grass-seed sower, so that it became impossible to sow the seed with the machine. If the gelatine becomes broken up in the water, it will be better to strain the whole through a cloth.

From fifteen to twenty-five pounds of seed is sown per acre. This depends upon the quality of the seed. The best results we ever had were from 15 pounds per acre, but it was home-grown seed. Where sown with a nurse crop, barley is the best grain to sow, at the rate of three pecks per acre. I find there is a mistaken idea with some people in regard to a nurse crop. They think, by sowing a nurse crop, so as to shade the ground, they conserve the moisture. This is not correct, as the nurse crop of grain will throw off a much greater quantity of water through its leaves than the

sun would evaporate from the soil. We sow the seed in front of the drill; the hoes or shoes of the drill act as a small double-mouldboard plow, throwing the clover seed in between the two rows of grain, away from the roots and shading influence of the strong grain plants. We give a cross stroke of the harrows, and follow immediately with the roller, but have the Breed weeder hitched to the back of the roller. This breaks up the fine, smooth surface made by the roller, and leaves a fine mulch in its place that prevents rapid evaporation. After the grain crop is cut, do not allow any stock to pasture on field. It may grow up two feet high in the fall, but let it stay; it makes a fine place to catch the snow in winter to protect the young plants. It is well to roll it down in the spring, to break down any old stalks and press any small stones into the ground.

## CUTTING.

Cut when about one-tenth of the blossoms are out. We cut in the forenoon, and follow with the tedder as soon as possible. The farmer who attempts to make alfalfa hay without a tedder has a hard proposition, even with the best of weather. The mowing machine is the best machine that has been invented so far for cutting hay, but it has its defects. One is that the leaves and blossoms are all left on top, with the result that the sun soon destroys the tissues of the leaf, and it becomes hard and dry, and in many cases falls off. The leaf is the natural organ of the plant to carry off the sap by transpiration; if the leaf is destroyed, the sap has to make its escape through less-effective channels; therefore, it is necessary to keep the leaves on the plants in as green a state as possible until the sap is evaporated. This is best accomplished by tedding two or three times the day it is cut, and putting into small coils before night, allowing it to stand three or four days in the coils before hauling to the barn. Sometimes rain interferes with our operations. If it continues wet for several days, two men should go around with forks and haul the coil to a fresh place, so as not to kill the plants under the coil by smothering. We usually cut three crops from the same field in the season. The second and third cutting is much easier saved than the first. We ted two or three times after cutting, rake into windrows the same day, and let it lie in the windrows over night. The next forenoon we run the tedder lengthwise of the windrow, use the hay loader in the afternoon, and haul to the barn. We always get our finest hay in this way.

## BREAKING UP.

The question is often asked, How will we break up the sod, owing to the very coarse, strong roots that the plant possesses? This can be easily done by allowing all kinds of stock to pasture the fields close the fall previous to breaking. If horses are allowed to pasture late in the fall, or when the fields are bare in the winter, they will bite the crowns out, and the plants will die. When the warm weather comes, so as to rot the roots, the field can be plowed about the middle of May, the same as any other old clover sod, and the field will be a fine place to grow a crop of corn. Alfalfa should never be grown as a rotation crop, as it is too expensive seeding, and, with proper care, a field will continue in good shape for a number of years. It should always be sown without any mixture of other grasses, with one exception, and that is where there may be a low place in the field, when there may be doubts about it winter-killing. Then, after the alfalfa seed is sown, it will be quite in order to sow some orchard grass by hand on those spots. The orchard grass will be ready to cut at the same time as the alfalfa, and it will give three cuttings during the season.

Why has alfalfa failed so often?

1st. Sowing it on land that is not adapted to its growth, such as low land or hillsides that are springy, peaty soils—soils with too much acid in them; i. e., lacking in lime.

2nd. Pasturing. Perhaps more failures have come from pasturing than all other causes put together. It makes an excellent pasture plant, but it does not stand tramping by the animals' feet. Close and late pasturing in the fall is almost sure to prove fatal to it.

3rd. A lack of proper bacteria in the soil for the purpose of gathering nitrogen. This can be supplied by the nitro-cultures already mentioned, but the cultures have not proved uniformly successful, and we must look for a cause.

## WHY INOCULATION MAY HAVE PRODUCED NO BENEFIT.

It may have been that, where experiments have been tried in the same field, and no difference could be seen between the treated and the untreated seed, that the soil was already fully inoculated from the bacteria that work upon the sweet clovers, or from some alfalfa that has been grown upon the farm or adjoining farms years ago. In that case, we may dismiss the subject without further comment. Another probable cause is the manner in which the cultures are handled. Those bacteria are small, single-celled

plants, belonging to the lowest order of plant-life. Most of those bacterial plants are killed by the action of sunlight. When the farmer obtains the culture from the bacteriologist, he takes the glass bottle which contains it from its wrapping, and perhaps innocently places it in the window, where the sun's rays fall directly upon it; or he may have done everything properly until he commences to sow the seed, but, instead of sowing the seed in front of the drill, and having it covered immediately, he sows it behind the drill, and the seed lies there uncovered and exposed to the burning sun for perhaps the greater portion of the day. All of the expense and labor incurred is for naught.

HY. GLENDINNING.

Ontario Co., Ont.

## NOTES FOR FARMERS FOR APRIL.

By John Fixter, Farm Superintendent, Macdonald College.

1. If you have not planned a definite rotation of crops, plan a four-year rotation, subject to modification later on.
2. Keep all animals out of the pastures.
3. Remove colonies of bees from their winter quarters on a calm, dry day, when the temperature is 60° to 70° Fahr. Weigh every colony, giving those short of stores a frame of well-sealed honey.
4. Clean up around the house and barns, removing all rubbish.
5. As soon as the snow is off the ground, spread all manure that has been drawn during the winter, whether ready to plow or not.
6. See that all water courses are open; open furrows to let any water off the fields that can best be let off that way.
7. Do not work heavy loam or clayey soils when they are wet and cold; if you do so they will bake, and a good crop cannot be expected.
8. When the soil is in suitable condition, do not lose a minute. Early seeding gives the best results.
9. Sow the best seed procurable.
10. Sow clover with every crop of grain, excepting peas. It is the cheapest fertilizer.
11. Sow wheat, oats and barley on fall-plowed land, and prepare it thoroughly in spring before sowing.
12. Sod, plowed in spring, should be planted with corn, potatoes or peas.
13. Gather surface stones from the meadows, and roll the land as soon as dry enough to carry without cutting the sod.
14. Look after the brood sows. See that they have a warm, dry place for farrowing; watch closely when time is up.
15. Give brood mares plenty of light work for exercise, and good laxative food.
16. Watch the ewes lambing; separate them for a few days to a slightly warmer room.
17. Have some cows calve this month.
18. Look in on the whole of the live stock just before retiring.
19. Do not put off until to-morrow what should be done to-day.

## SILAGE BETTER THAN SHREDDED CORN.

Editor "The Farmer's Advocate":

In the March 12th issue of "The Farmer's Advocate" I noticed an article on shredding corn, by G. B., Essex Co. As I have had considerable experience in handling corn for myself, as well as for other farmers, I will try to give my experience, which I think will prove that the silo is the right method of caring for corn fodder. I have a threshing outfit, corn shredder and ensilage cutter, and have threshed corn with the separator for some farmers, and shredded for others, but find the silo gives best satisfaction, as more or less fodder is always wasted when put in a mow or stacked. Even when mixed with alternate layers of straw, there is a waste, which never occurs when a silo is used, provided the silo is not too large, so that the ensilage can be fed off fast enough that exposure to the air will not spoil it. I need not tell you that Dereham Township is among the first in dairy business, and as we have cheese factories, condensers, and Canadian Milk Product Co., within easy reach, we find good money in dairying, as Mr. Freeman's letter in a recent issue would prove; but as he sells his milk to the Canadian Milk Product Co., which pays a higher cash price than cheese factories, his average looks better. He claims ensilage is his mainstay for feed, as do all the farmers who have fed it. We have many silos in this district, and find them a great success, and would advise G. B. to build one and prove it for himself. Cement silos are fast taking the place of wooden ones, as they give better satisfaction in every respect.

As I am building a barn, and am at a standstill to know which is the better way to fasten cattle which have water supplied to them in the stable, and for days do not get out in stormy weather, the stanchions or tie-chains? would like to hear the opinions of others along this line.

Oxford Co., Ont.

A. D. H.

## SEVEN KINDS OF FARM POWER.

Editor "The Farmer's Advocate":

During the next few weeks, many farmers who have purchased cream separators or other hand-operated machinery, as well as some with heavier equipment, will be casting about to find a satisfactory source of power to operate the same, thus saving time that may be more profitably spent in field work. During the fall and winter, while outside work has been less pressing, the operation by hand of separators and kindred machinery may have seemed a small matter; but, during the busy season, when every minute is worth money, the quarter or half hour twice a day thus employed, not to mention the muscular expenditure, may raise the question whether the value of such equipment is not offset by the loss of time necessary to operate it. It is for the guidance of those thrifty farmers who believe in making every department of farm work pay its own way, that the writer purposes giving a brief review of the farm-power problem, with reference to the advantages and disadvantages of various methods of power production.

Farm machinery may be operated by steam engine, electric motor, water-power, gas or gasoline engine, windmill, horse-power, or hot-air engine. The first mentioned is handicapped by the fact that it is not an ever-ready source of power, having to be fired some time before using; also, it is rather unsafe in dry weather, and requires someone trained to operate and care for it. These facts, and its relatively high first cost, bar the steam engine from general farm use.

The next two on the list, electricity and water-power, are not available, except in favored districts or rare cases, while the element of danger in using electricity results in higher fire-insurance rates, so that the final choice must lie between the gas engine, hot-air engine, windmill, and horse-power. These I shall consider in the order named.

The gas engine and the gasoline engine are similar in construction and operation; in fact, they are alike in all points except the mixing of the gas or gasoline vapor with air; and, as this difference is immaterial, we need only consider the gasoline engine, which is in most common use. Its essential parts are the cylinder, inlet and outlet valves, piston and piston-rod, which last revolves a crank on a shaft bearing a fly-wheel. Nearly all gasoline engines are known as "four-cycle," which means that the complete act of obtaining power from the explosion of gasoline vapor and air requires two outgoing and two incoming strokes of the piston. As the power of the explosion is applied to only one face of the piston, this takes place as follows: The cylinder is equipped at its closed end with an inlet valve and an outlet valve; the piston is connected by a piston-rod with a crank which, we will say, moves in the same direction as the hands of a clock. As the crank passes nine o'clock, the inlet valve opens, and the charge of air and gasoline vapor is drawn into the cylinder as the piston moves forward, until the end of the stroke is reached, with the crank at three o'clock. Now, the inlet valve snaps shut, and as the crank, under the energy of the fly-wheel, returns from three o'clock to nine, the piston travels back to its first position, compressing the charge of vapor and air to twice or thrice atmospheric pressure. Immediately after the crank again passes nine o'clock, the charge is fired by a flash or spark from a battery or magneto, the resulting explosion driving the piston forward and the crank to three o'clock. Now, the outlet valve is opened, and as the crank again returns to nine o'clock, the back travel of the piston expels the waste gases. When the crank reaches nine o'clock, the outlet valve is closed, the inlet valve opens, and a new "cycle" of events begins, as before—admission, compression, explosion, expulsion—and so continuously as long as the engine is in operation; so long, that is, as the speed does not rise enough to cause the "governor" or regulator to cut off the supply of gas and air, in which case the energy of the fly-wheel must do the work required, and keep the engine in motion until the speed drops to the limit set by the "governor." Now, it will be apparent to all that if the supply of explosive is thus cut off when the engine is working at nearly "full load," the speed will, or may, drop a little below normal before a new charge is admitted and fired after four or six revolutions of the fly-wheel; but, as nearly all gasoline engines run at fairly high speed, the time allowed for this is so short that a fairly even speed is maintained.

Some separator manufacturers, however, condemn the use of gasoline engines for running their machines, on the ground that, even when the speed seems constant and steady, the gears are subjected to a considerable jerk at every explosion in the cylinder. This will be to a large extent neutralized if a fairly heavy fly-wheel is used on the engine, as it will not feel the weight of driving the separator, and will thus prevent a drop in speed which would allow the separator to run free, to receive later a "kick," when a fresh impulse comes from the engine.

A new type of governor has recently been adopted by some manufacturers which gives very smooth results. Instead of cutting off the supply altogether, it reduces it when necessary, so that there are no "skips," but a steady, regular succession of graduated explosions, which produce admirably even running. Engines equipped with governors of this type give perfect satisfaction wherever used.

As regards danger from gasoline engines, this may be reduced almost to the vanishing point by placing the supply tank outside the building, and conveying the gasoline to the engine by a pipe, and by taking care to keep all lights away from the gasoline when it is exposed to the air, as in filling the tank. Two methods of cooling are employed to keep the working parts at a right temperature, but, as air-cooling is more complicated, water-cooling is best for all stationary engines.

The hot-air engine, as a source of power for operating light farm machinery, especially pumps, has been known for years, but, on account of a popular misconception of the nature of it, has never come into prominence as a farm power. It is a cheap, steady power, ready almost in a moment, and so simple that a child can operate it: one of the claims of the manufacturers, and a true one. It is not, however, suitable for running heavy machinery, such as large ensilage cutters, but to the farmer requiring light power, the hot-air engine offers the following advantages: Simplicity, cheapness, promptness of service, and ability to stand almost any usage. Unlike the steam engine, it may be left outside, if necessary, in the coldest weather, without danger of freezing, water bursting flues, etc., or bother running off water to avoid this. To obtain power, it is only necessary to fire up long enough to make the fire-pot red-hot, which, with a dry fire-pot, does not take long. By reason of its simplicity, repair bills are reduced to a minimum, while the cost of fuel is also very moderate; so that the farmer requiring light, inexpensive power should not omit a consideration of the hot-air engine.

Having considered two methods of power production requiring fuel, explosive or otherwise, we turn to one requiring no motive power but the elements, and, like them, uncertain as to "next." This is the windmill's chief disadvantage; it cannot be relied upon to furnish power at any time. Also, in spite of manufacturers' claims for steadiness, it would appear that the windmill is not suitable for operating cream separators or other machinery requiring steady motion. Two facts contribute to produce this result, the irregular power and speed of the wind, and the nature of the controlling device on the windmill. As everyone knows, the wind may be almost a gale for a short time, and, after the squall or gust has passed, may have hardly power enough to turn the mill. Then, too, the "governor" or regulator of the windmill is not capable of keeping the speed constant, even when there is sufficient wind. The modern windmill is equipped with a controlling device which, when the speed of the wheel becomes too high, draws it around more or less edgewise to the wind. When this occurs, the wheel, of course, receives less power from the wind, and its speed falls; but as the wheel is cumbersome and heavy, it returns to its former position too slowly, which lets the speed run down too much. In view of these facts, the windmill should not be chosen as a source of power for operating separators, etc., though it has a real mission to fulfill in driving pumps, grinders, circular saws, etc.; in short, any machinery in which steadiness of speed and regular service are not essential. A last word of advice about windmills might well be, "Choose a mill that automatically goes 'out of the wind.'" Should anything break, the wire or cable which holds it in position facing the wind, the worst that could happen would be a sudden stop; but if it be one which of itself goes into position, the results may be disastrous should the restraining wire break during a gale. A case comes to mind of a mill breaking loose one night in a violent storm, and, after racing madly, tearing itself loose, utterly wrecking the wheel by crashing into a tree. At another time, the owner of a windmill had to stay home all day Sunday keeping his grinder supplied with grain, so as to keep down the speed of the mill. These are exceptional cases, but it is often the unexpected that happens; so, in getting a windmill, choose one of a safe type.

Last, but not least, comes the horse-power. Horse-powers are of two kinds, "tread" or inclined powers, operated by the weight of the horses or other animals used thereon; and "sweep" or horizontal powers, utilizing the tractive power of horses. Sweep powers are so well known that no description is necessary, the chief advantages being sturdy strength, wide range of power production, from one to ten or more horses being used, and comparatively low first cost. The sweep-power's disadvantages are unsteadiness, large space required, and the fact that someone must spend his time driving the horses. The sweep-power is not satisfactory for the operation of cream separators, as the speed produced

depends entirely on the rate at which the horse or horses walk.

The tread-power, unlike the sweep-power, is not suitable as a motive power for heavy ensilage cutters and similar machinery, but is eminently satisfactory for medium and light-weight equipment, being made in one, two and three-horse sizes. Its advantages are, its uniform, steady speed, compactness as compared with the sweep-power, and the fact that it needs no attention while in operation. The speed is controlled by a "governor" placed on the hub of the drive-wheel. The slightest increase in speed causes revolving weights to grip and turn a drum or wheel which winds up a cord, thus drawing a brake against the face of the wheel. As the whole apparatus is light in weight, the "governor" does not need an excessive speed to bring it into play. Instead of a jerky, irregular checking of the speed, there is a constant light pressure of the brake on the smooth face of the wheel, resulting in a perfectly even speed. The writer has found the tread-power so satisfactory as a source of power that it is used for separating, pulping roots, sawing wood, cutting cornstalks and other fodder, and for driving an emery-wheel. For separating and pulping, the bull is used, driven on loose; while for sawing and cutting, two horses are used, and for grinding, one horse. We do not use our brood mares when heavy with foal.

Some people, using tread-powers too small for their needs, make up the lack by harnessing their horses to the cross-bar behind, making them draw on the latter while walking up the incline, thus imparting to the treads the energy of their weight and of their exertions. This is cruelty to animals, especially if the slope is steep, as it is apt to be the case when the above practice is resorted to. How many good horsemen would make their horses pull a load uphill, without a rest, for even fifteen minutes? Yet some horses have to endure this treatment for often an hour or more, without a chance to rest and regain their breath; and the better the horse, the harder he will work! This should not be; better, far, get a tread-power for more horses; or, if three horse-power is not enough for the work to be done, get a gasoline engine or some other form of power.

In the above article, the writer has tried to set forth, in an impartial manner, the advantages and disadvantages of various forms of farm powers. If some reader is guided to a satisfactory choice through the advice or statements herein contained, the purpose of this article will be realized.

Brant Co., Ont.

## DIRECTIONS FOR SEEDING TO ALFALFA.

"There are different ways of laying down a plot or a field to alfalfa, and we would suggest the following method as one which is likely to give very excellent results," says Prof. C. A. Zavitz, O. A. C., Guelph, in his bulletin on Alfalfa or Lucerne. "Select land having a clean, mellow, fertile surface soil overlying a deeply drained subsoil having no acidity. Use large, plump seed, free from impurities and strong in germinating power. Inoculate the seed with the proper kind of bacteria, providing alfalfa has not been grown successfully on the land in recent years. As early in the spring as the land is dry enough and warm enough to be worked to good advantage, make a suitable seed-bed, and sow about twenty pounds of alfalfa seed per acre from the grass-seed box, placed in front of the grain drill, and about one bushel of spring wheat or of barley per acre from the tubes of the drill. Smooth the land with a light harrow or with a weeder, and, if it is very loose and rather dry, also roll it, and again go over it with the harrow or the weeder. As soon as ripe, cut the grain, and avoid leaving it on the land longer than necessary. Give the alfalfa plants every opportunity to get a good start in the autumn, in preparation for winter. If for hay, cut each crop of alfalfa in the following year, as soon as it starts to bloom. In curing, try to retain as many of the leaves on the stems as possible, and to protect the crop from the rain. Never cut or pasture alfalfa sufficiently close to the ground to remove the crowns of the roots, and thus injure or possibly kill the plants. If these directions are followed, the alfalfa may be expected to produce large and valuable crops for a number of years without re-seeding."

## SEED CORN, 1908.

Editor "The Farmer's Advocate":

As the season for selecting and buying seed corn is now at hand, a few hints as to selection and testing may not be out of place.

In the first place, buy seed corn early; in fact, buy it now. And what is more, buy it in the ear, and then test it. When buying in the ear, you can see what you are getting. When shelled, neither the buyer nor anyone else can know what the ears were like. What is more, you will see and know that you are not buying ordinary elevator corn for ensilage seed, as has often been

done in the past. When you have bought your corn, test it. The simplest and easiest way is to count out one hundred grains (a fair average from the ears). Then take a shallow pan and place in the bottom two thicknesses of flannel. Into this put 100 grains, spread out evenly; then, over this spread a double thickness of flannel. Keep this moist and warm; a temperature of 70 degrees is best. After four or five days, count out the number of sprouted grains, and the balance will give the percentage of non-germinating corn. If the first test is not satisfactory, test again. I have often found the second test to be much better than the first. Another thing of which many are not aware is that, as the season for planting corn draws near, the germinating propensities are much stronger.

In my opinion, there will be a good deal of corn this spring with low and poor germination, owing to the very cool summer and fall of 1907, making the maturing late, and the corn consequently soft and full of moisture. This invariably means uncertain and unsatisfactory germination the following spring. Don't be afraid of paying a good price for first-class corn, and don't fail to test it before planting.

Middlesex Co., Ont.

J. S. PEARCE.

## THE DAIRY.

### TEST OF A MECHANICAL COW-MILKER.

A number of the American Agricultural Experiment Stations are now testing milking machines. We ought soon to have sufficient data to be of service to the practical farmer and dairyman, in deciding whether or not it will pay to instal a milking machine for use on the average dairy farm.

The objects sought for in the experiments outlined in this bulletin, No. 85, Pennsylvania Experiment Station, were:

- First.—Time required for milking.
- Second.—Completeness of milking.
- Third.—Yield of milk.
- Fourth.—Effect upon the udder.
- Fifth.—General health of cows.
- Sixth.—Flavor of the milk.

All of the foregoing are practical points for dairymen to consider.

The results of the test are given as follows:

1. It required from two to three times as long to milk a cow with the machine as would be required by a good hand milker, but one operator can handle two or three machines, so he could milk four or more cows with the machine in less time than he could milk the same number by hand.

2. In general, cows were milked cleaner as they became accustomed to the machine, but individuals varied widely in this respect. Two of the cows tested could never be milked with the machine without leaving one or two more pounds of strippings, while the others were often milked as completely as would be done by hand under ordinary circumstances.

3. No difference in yield of milk was observed that could be attributed to the machine milking, but there was usually a slight drop when changing from one method to the other; always in changing from hand to machine milking.

4. No injury to the udder took place that could with certainty be attributed to the use of the machine.

5. The general health of all the cows remained good during the entire experiment.

6. Wide variations in the flavor and keeping qualities of the milk were observed from different cows, but the quality of the milk from each cow remained practically constant, whether she was milked by hand or machine.

No advice is tendered regarding the wisdom of purchasing milking machines by the average dairyman, but if one reads between the lines, he will conclude that at present the machine is "damned with faint praise."

H. H. D.

### O. A. C. DAIRY SCHOOL, 1908.

The regular Dairy School long course at the Ontario Agricultural College, opened January 2nd and closed March 26th, 1908. During this time fifty-two students registered, of whom thirty-five wrote on the final examinations. Of these thirty-five, thirty-one succeeded in passing the final tests at the close of the term.

Two quite radical changes in the course were carried out during the past session. During the month of January, each alternate day was devoted by the class to laboratory work in the bacteriological laboratory, and each alternate day to practical work in the dairy. During February, alternate days were spent by the class in the chemical laboratory. By following this plan

about double the amount of time which was spent in previous years was devoted to dairy bacteriology and dairy chemistry. The good results from this method were seen in the good showing of the class in these technical subjects, and reflect credit on the excellent work done by Professors Edwards and Harcourt, and by their assistants, Messrs. Barlow and Fulmer. The class was greatly pleased with their instruction in these two subjects, which have been considered more or less in the nature of "bugbears" by former classes.

Half the time during March was devoted to practical instruction in handling boilers and engines, piping, soldering, etc., under the direction of Mr. Geo. Travis, Tillsonburg.

The second departure from methods followed in former years was in having the examinations distributed throughout the third month, instead of having them all come in three days at the end of the term. This proved to be a wise step, as it gave students an opportunity to prepare properly for the final tests, and was less strain upon men not accustomed to writing on examinations.

The general proficiency lists for the long-course dairy class is as follows, including those taking the full factory course, those taking special work in butter-making, and those who spent the term at practical work in the farm-dairy branch of the school:

#### PROFICIENCY LIST, DAIRY SCHOOL EXAMINATIONS, 1908.

Rank.	Name.	P. O. Address.	Max. Marks 1200.
1.	R. Macdonald,	Verschoyle, Ont.	1016
2.	W. J. Clark,	Harriston, Ont.	948
3.	D. Gunning,	Owen Sound, Ont.	942
4.	C. E. Bingleman,	Villa Nova, Ont.	933
5.	H. O. Bingleman,	Rockford, Ont.	880
6.	(F. R. Hefner,	Exeter, Ont.	862
	(A. McLaren,	Guelph, Ont.	862
8.	M. W. Godby,	Langton, Ont.	855
9.	I. C. Goodhand,	Corbett, Ont.	851
10.	A. A. Miller,	Jarvis, Ont.	843
11.	E. N. Gilliat,	Guelph, Ont.	837
12.	D. M. Oliver,	Toronto, Ont.	836
13.	J. L. Brown,	Oxford Centre, Ont.	826
14.	N. Iwalta,	Heidelberg, Ont.	815
15.	C. C. Curtiss,	Addison, Ont.	809
16.	W. R. Payne,	Strathroy, Ont.	798
17.	W. B. Thompson,	Hickson, Ont.	794
18.	Jas. L. Easton,	Hagersville, Ont.	753
19.	H. Lockyer,	New Durham, Ont.	714
20.	B. Beninger,	Riversdale, Ont.	702
21.	*Thos. Neefe,	Condensport, Pa., U.S.A.	524

\*Failed in cheesemaking and bacteriology.

#### PROFICIENCY LIST, BUTTER SPECIALISTS, 1908.

Rank.	Name.	P. O. Address.	Max. Marks 1000.
1.	J. Trueman,	Kirkfield, Ont.	747
2.	E. May,	Heidelberg, Ont.	712
3.	*R. Keller,	Winthrop, Ont.	611
4.	†N. E. Inglis,	Olds, Alta.	438
5.	‡H. Spry,	Guelph, Ont.	414

\*Failed in bacteriology.

†Failed in bacteriology and chemistry.

‡Failed in bacteriology and boilers and engines.

#### FARM DAIRY.

Rank.	Name.	P. O. Address.	Max. Marks 1100.
1.	J. Iwanami,	Bronte, Ont.	928
2.	L. Stewart,	Peterborough, Ont.	870
3.	W. Singleton,	Guelph, Ont.	823
4.	Miss Evelyn Ellis,	Toronto, Ont.	749
5.	J. Finlay,	Bluevale, Ont.	694
6.	C. F. Everest,	Guelph, Ont.	692
7.	R. Harris,	Rockwood, Ont.	601
8.	G. B. Chase,	North Adams, Mass., U.S.A.	583
9.	V. Oxley,	Thornhill, Ont.	516

#### SHORT COURSES.

Two short courses opened on March 30th, and continued for one week. One of these courses was the regular one given each year to the summer instructors before commencing their season's work. It is largely a laboratory course, along with lectures and discussions. The chief lectures this year were given by Dr. J. H. Reed, of the regular College staff, on common diseases of dairy cows and on the question of tuberculosis. There are nine instructors for Western Ontario employed in summer visiting the creameries and cheeseries of the Province, whose duties are to assist in improving the quality of butter and cheese made in factories, to visit farms and give advice in caring for milk, cream, etc.; also to see that proper sanitary conditions are maintained on the farm, in and around the factories.

A special course of instruction in testing milk and cream was conducted at the same time as for the instructors. Fourteen cheese and butter makers from various parts of the Province availed themselves of the opportunity to attend lectures and get practical help on testing problems. Some eight or ten students who had taken the regular long course remained over for the short courses, making a total of about 80 in attendance during the long and short courses in dairying during the winter. The forenoon of Thursday, April 2nd, was devoted to the judging of experimental lots of cheese and butter made during the term. Mr. Gray, of Thos. Ballantyne & Son, Stratford, and Mr. Frank Hens, London, Chief Dairy Instructor, ably assisted in this work. On the whole, the term has been one of the most successful in years.

#### DISCUSSION ON HAND SEPARATORS.

This discussion on hand separators took place at the Eastern Dairymen's Convention, at Picton, January, 1908, following an address by J. Stonehouse on "The Creamery Outlook." The address itself was published in "The Farmer's Advocate" of April 2nd.

Mr. Stonehouse.—Results we have obtained in our experiments at the Kingston Dairy School warrant the statement that the percentage of fat in the cream from hand separators can be made to vary 5 to 15 per cent, by varying the speed of the machine, and without changing the cream screw at all.

Q.—What effect would the tightening of the cream screw have?

A.—That means thickening the cream.

Q.—Do we not lose fat in the skim milk by making a rich cream?

A.—Not if the speed of the machine is high enough. If you are running your machine at too low a speed, you are losing fat, no matter whether you are taking a rich cream or a poor cream. The richness of the cream has but little to do with the loss of fat in the skim milk. The principle factor in the loss of fat in the skim milk is the speed of the machine. Remember this, however, that I am not advocating a higher speed than is indicated on the handle of the machine, but don't get below it. What I want to impress, more particularly, is that, by changing the speed of the machine you alter the richness of the cream skimmed.

Q.—Will we get as good results in separating milk that has been warmed up as by separating directly from the cow?

A.—Yes, I think we would, if heated high enough; old milk requires a higher temperature than fresher milk.

Mr. Glendinning.—What is the best way to heat up milk after it has become cold?

A.—The best way is to put it in hot water, but the most convenient way is to set it on the stove.

Mr. Glendinning.—We have found it satisfactory to take a creamer can and fill it with boiling water, and set it in the reservoir of the separator.

Q.—You spoke of rich cream arriving at your creamery in better condition than poor cream. What is your theory for that?

A.—On account of there being less milk in the cream.

We know that when we take a rich cream from a separator it has but little milk in it, and it will always keep in good condition longer than a poor cream, because it is the skim milk or serum which goes off in flavor, and not the fat.

Mr. Warden asked a question about not being able to get butter from cream sometimes on the farm. What is the reason?

A.—There are several causes. As a general thing, the whole trouble is a thin or poor cream, and too low a temperature for that particular cream. There are a good many people yet who think there is a certain churning temperature, regardless of any other condition of the cream. The churning temperature of cream may vary from 48 degrees, up to 70 or 75, and if one has not the proper temperature for this specific cream, he will have trouble. I have never yet seen the cream that would not churn if the temperature was high enough at the start. Trouble may come from one or two cows in the herd which have been milking a long time, and their cream is very difficult to churn. Keeping their cream out, sometimes solves the difficulty.

Mr. Warden.—A neighbor had trouble in churning, and he stopped milking two cows, and there was no further trouble. These cows had been milking eight or ten months.

Q.—Do you think it makes any difference to feed frozen feed to cows?

A.—I never had any experience with that.

Q.—Will not such feed make the fat harder, and consequently more difficult to churn?

A.—I cannot speak definitely on that point; the two principal fats in milk become hard, especially with cows that have been milking a good while, and are being fed on poor feed, and then these fats will not unite together, unless at a high temperature. These two fats have a melting point at 146 degrees, but if we feed a richer and more succulent ration we get a larger proportion of a soft or oily fat in the milk which has a melting point at 40 degrees; and if we have a goodly proportion of this oily fat, which we get from rich, succulent food, or from fresh cows, we will have but little trouble in churning, as the fats then readily adhere together.

Mr. Elwood.—What effect has acid on the cream?

A.—With a thin cream, we need to have a certain amount of acid to make it churn readily, but it is not necessary with a rich cream. Our principal object in souring cream is to have a little more distinct flavor in the butter.

Q.—Do you think the keeping quality of butter is as good from sweet cream as from sour cream?

A.—I do not think there is much difference, if the quality of the cream is equal.

Mr. Derbyshire.—Does butter want to be kept? Why don't you sell it and have it eaten while it is fresh?

A.—That is what the creamerymen aim to do. Q.—Is it not worth more money five days after it comes out of the churn than it is at any other time?

A.—Yes, I try to get my butter off my hands within a week, because I have never seen butter that improved with age.

Mr. Barr.—With reference to the 9-c.-c. cream bottles, I agree with Mr. Stonehouse and Mr. Mitchell that dividing the sample in two is an improvement, but I think that the cream should be weighed.

CARELESS MILKING.

Editor "The Farmer's Advocate":

As I get many good ideas from your valuable paper, I thought I might give some advice to my fellow farmers about milking, especially as I have noticed several inquiries as regards cows losing the use of their tubes; and as I have never seen much written as to the supposed cause, I will try to tell what I consider the real cause of so many young cows having a lump or small growth between the point and udder. Annually, we used to have one or more with blind tubes, or, I might say, double ends, that we would have to squeeze the milk through the growth before we could get it through the end of the tube. Well, I might say the damage is frequently done the first year, and at second calf the cow would be spoiled for a milker. Now, this mostly happens with our best milkers, because the udder is distended very much, and forced down into the tubes, especially if the tube is large at the top or funnel-shaped. Then, milking too high up the teat, especially with finger and thumb, or milking one teat with both hands when stripping them out, ruptures the tissues of the udder; then it is drawn down into the tube, and forms the growth which I have already mentioned. It can be noticed at the end of the season, and when the heifer is dried, it closes so as to spoil the tube. I feel certain that is the cause, for since I have made a study of it I have not spoiled one heifer's tubes in a number of years. Now for how to milk: Milk full-handed, or, if the teats are so short that you have to use the finger and thumb, keep the ends of your thumbs down, and be sure not to go very high up the teat. I always endeavor to milk the young cows myself the first year, in preference to letting hired help milk them. Middlesex Co., Ont. JOHN E. PARKER.

[Note.—I cannot agree with Mr. Parker in regard to the cause of these growths in the milk duct. In my experience, they are more frequently met with in cows of mature age, than in young cows at the second calving; and, while they sometimes appear during the period of lactation, they more frequently grow between the periods, and are noticed when attempts are made to milk after calving. The growths are fibrous in character, and the predisposition is undoubtedly congenital. Nevertheless, Mr. Parker presents his ideas in good form, and careful milking cannot be too strongly emphasized.—Veterinary Editor.]

POULTRY.

LARD AS AN EGG PRESERVATIVE.

Consul D. I. Murphy, of Bordeaux, forwards the following synopsis, from a French journal, on a new method of preserving eggs, which, he says, appears to have the double merit of cheapness and simplicity. The article was based upon the experiments of Dr. Campanini, as reported by him in the December bulletin issued by the Italian Minister of Agriculture.

Dr. Campanini, after reviewing the various known means of preserving eggs—by salt water, lime water, silicate of potash, vaseline, and cold-storage—described his experiments, which showed better results than all others.

His theory is that, to preserve eggs, some system must be adopted that will absolutely prevent the exchange between the air outside and that inside the egg, for it is this continual exchange that causes putrefaction.

Dr. Campanini selected perfectly fresh eggs and covered them with lard, so as effectually to stop up all the pores. The shells were thus rendered impermeable, the exchange of air was prevented, and the obstruction of the pores not permitting the evaporation of the water, there was no loss of weight. The whites and yellows of the eggs retained their colors perfectly, and the taste was not modified in the slightest degree. When properly caked with lard, not too thickly, the eggs are put in baskets or boxes on a bed of tow, or fine, odorless shavings, and so arranged that there will be no point of contact between them; otherwise a mold will develop, and putrefaction result. The packing-room should be perfectly dry, the question of temperature not being important. By this process, Dr. Campanini kept a quantity of eggs for a whole year, through a very hot summer and

a very cold winter, and they were perfectly preserved. He says that 4c. worth of lard suffices to coat 100 eggs, and that anyone could easily prepare that number in one hour's time."

The foregoing article, from the Chicago Live-stock World, we referred to Frank T. Shutt, Chemist, Central Experimental Farm, Ottawa, who writes us as follows:

Some years ago, in experimenting with various methods of egg preservation, we tried smearing the eggs with vaseline, gum arabic, dextrin, fats of different kinds, and a number of other organic substances. None of these, however, proved entirely satisfactory, chiefly because of the growth of mold on the egg, which usually ensued. Further, there was a distinct tendency to rancidity of the covering material, when such was of the nature of oil or fat. Both mold and rancidity markedly affected the flavor of the egg. It is perhaps possible to prevent the development of mold by storing the eggs in a well-ventilated, dry room (not a cellar), and leaving ample air-way between the eggs, but it does not occur to the writer how rancidity is to be prevented during our hot summer, under such circumstances.

We recommend lime water as the best method for the householder, and cold-storage when large quantities of eggs are to be held over.

[Note.—The lime-water method is as follows: The preservative is prepared by slaking two pounds of quicklime in a small quantity of water, and stirring the milk of lime so formed into enough water to make up five gallons. After keeping well stirred for a few hours, allow it to settle, and draw off the liquid above the settlings. Pour the lime water over the eggs, previously placed in a crock or water-tight barrel. Exclude the air by a covering of sweet oil, or by sacking on which a paste of lime is spread. Exposure to the air tends to precipitate or throw down the lime (as carbonate), and thus weakens the solution. If, after a time, there is any noticeable precipitation of lime, the lime water should be drawn or siphoned off, and a quantity of freshly-prepared lime put in. Eggs preserved in this pickle were found by Prof. Shutt quite good for cooking at the end of a year.]

A "SETTING" COOP FOR TWELVE HENS.

Editor "The Farmer's Advocate":

In "The Farmer's Advocate," of recent date, was given the plan of a poultry house with an apartment designated "setting room." For the past six years I have set my hens out in the orchard, with good success. I have a "setting" coop, for 12 hens, made as shown. It is made of rough inch lumber. The "stalls" or spaces for each hen are 14 inches wide. There is no bottom to the thing. The nests (A) are on the ground,

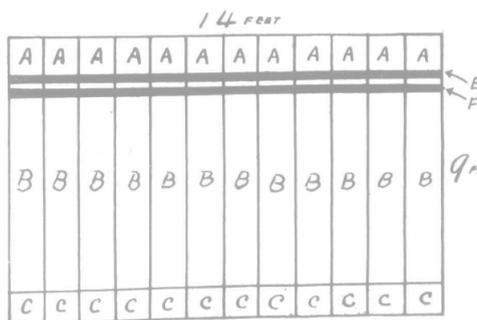


Diagram of Setting Coop.

just a handful of chaff or cut straw, not too much. In front of each nest put a small block of wood to keep the nest together. The space (B) is a feed run for the hen when off; cover this with poultry netting. The end (C) has a tin for water. Cover (A) and (C) with a loose board or plank, held down with a stone to keep from blowing off. E and F are narrow strips nailed down, 1 1/2 inches apart, that you may drop a short board in to keep the hen a prisoner on the eggs the first night. We find this "incubator" works well for the ordinary farmer. The hens are not disturbed. Always place them on the nest at night. Generally you will have little trouble. Eggs hatch better, we believe, on the ground. Waterloo Co., Ont. JOHN TAYLOR, Jr.

OYSTER SHELLS PREVENTED EGG-EATING.

Editor "The Farmer's Advocate":

I have noticed enquiries for a remedy for the egg-eating habit in fowls, and would like to give my own experience with this trouble. My fowls, of both sexes, had such a bad attack of it that if I placed an egg on the floor of the pen and stood guard over it they would fairly tumble over each other to get at it. It was clearly a case of what the "alienists" would probably call "brain storm." I resolved to try a dose of oyster-shells for them, and they proved to be just the

"eggs-act" remedy, as the symptoms seemed to disappear after the first dose. While not at all sure, I believe it is important to give the fowls enough the first time to induce them to gorge themselves, as that seems to give them the idea that "vunce vas dwice doo plenty." I do not claim this to be an infallible remedy, but I seem to have no trouble with this habit while the fowls have plenty of lime. N. E. BODY. Brant Co., Ont.

WHITE DIARRHEA.

Editor "The Farmer's Advocate":

In reading Mr. J. R. Henry's letter, in March 26th issue, it was somewhat of a surprise to find the alterations he makes in his statements, which throw a different view on the question. In the first place, why consider this idea of resting hens during the second year anything new? It has been recommended in the poultry press for years.

In Mr. Henry's reply to my letter, he notes the prairie hen as being an inhabitant of this cold country. Is it? If it is, I take back my statement. But does it spend the winter months where it hatched and reared its young? Then, as regards a proper house, he reverts (?) from natural to man's method. I take it that anything that is frail and weak is sick. Now, a hen may lose some of her brilliancy and lustre, but that is not saying she is not well able to perform her duties. So far as exhibition birds are concerned, why don't you set the first eggs a pullet lays, and why doesn't she lay as large eggs as she does after laying a while, if she deteriorates?

Further on in the letter, he quotes proof from my statement that the fact that the hens laid heavily all winter did not affect the hatchability of the eggs. If he can hatch chickens like that—63 chickens from 67 eggs—it would not be worth while to rest the hens.

Another thing I might mention is that hens resting all winter do not, in the majority of cases, lay satisfactorily when wanted, and that the hen which commences laying first, and lays the most per month from time of starting till spring, will lay as many, and in a great many cases more, eggs, which are of a size and quality which one would care to offer as eggs for hatching.

In conclusion, let me say that, in my opinion (theory, if you like), these things do not cause diarrhea, and that no system of feeding can possibly eliminate it. It is strictly an incubator trouble. We may increase vigor in the germs, so as to be able to resist it better; but give the same eggs to hens to hatch as you put in the incubator, and it is in only rare cases that hen-hatched chicks will show it, which proves, to my mind, we have to combat it in the incubator. S. H. WEBBER. Huron Co., Ont.

APIARY.

CO-OPERATION: A REPLY TO MR. CHRYSLER.

Editor "The Farmer's Advocate":

With your permission, I wish to refer to an article in your issue of March 5th, by Mr. Chrysler. In this, he refers to mine, in "The Farmer's Advocate" of January 9th. He makes no attempt to disprove what I stated, that the benefits to be derived from co-operation in the sale of apples cannot accrue from co-operation in the sale of honey. As Mr. Chrysler would be the first one to contradict my statements if not true, we must come to the conclusion that the statements were facts. Now, Mr. Chrysler, as a leader in this movement, should have known this long ago; and if he did, it has been misleading, to say the least, to always bring in as an argument in favor of his scheme, the success that has attended co-operation in the sale of apples.

There is only one thing I stated that he takes exception to, viz., the impossibility of having a satisfactory grading of honey, and asks the question, "Who grades it now?" and "Is co-operation going to make conditions worse?" and, without quoting more than necessary, he says: "Now, Mr. Deadman has bought honey for years from as many parts of the Province as an association would expect to collect its supply from. Mr. Deadman must either grade the honey satisfactorily, or it is done unsatisfactorily. If he is a failure at grading it, he must surely have that miserable, unripe stuff, as he calls it, to sell to his customers." In the first place, I must say that I am surprised that Mr. Chrysler should try to avoid the question at issue by making such an explanation as that. I am afraid he will have to get better posted about some things, at least. He should know that, when one handles first-class honey, there is no grading to do, and as I will not buy unripe honey at any price, I have none to sell. Easy, is it not? But it is just here the weakness of a co-operative association comes in. A co-operative association that would only handle first-class honey could never be launched, much less exist. When a honey producer pays his \$25 or more into a co-operative association, he does it to help to sell his honey, and just as soon as you reject and attempt to grade and classify his honey, just so soon will he want his money back.

If it could be shown to his satisfaction that his honey was inferior to some other—a very difficult matter to do—he might remain with the association; but, to reject his honey, well, I can hardly conceive of one being so foolish as to invest his hard-earned money with that possibility in view. I think Mr. Chrysler, instead of asking questions so easily answered, would have been more to the point to show how he would make a success at grading. As briefly as possible, I will endeavor to show that it is impossible to have a satisfactory and understandable grading of extracted honey. It was attempted once, and proved a failure, and always will be. For example, we will begin with clover honey, and, in order not to make matters more complicated than we can help, will call the best No. 1, and the worst No. 4. Now, there will be another lot, nearer No. 1 than No. 4, which we will call No. 2. Then, another sample is not as good as No. 2, but better than No. 4; this we will designate as No. 3. Those who are at all familiar with honey know that this is not overdrawn; in fact, it does not go far enough. The same can be said of buckwheat, or of basswood. Then comes the combination of clover with just enough buckwheat to spoil it, both as to flavor and appearance. Then, there is other honey, known as spring bloom, that there may be a surplus of, and that may get mixed in and render the very best honey inferior, and that would make it impossible to grade satisfactorily, and that could be described and understood, the same as when speaking of apples as No. 1 and 2, etc. For instance, a prospective buyer writes to the manager of a co-operative association for honey. He is told that the association has some No. 1, 2, 3 and 4 in clover, also as many grades in basswood, and as many grades of either of these, either in combination with each other, or with some inferior. Now, does Mr. Chrysler pretend to say that a standard for each of these could be set up so that it could be bought and sold the same as apples are? The prospective buyer would have to have a sample to be sure of what he is getting. He writes back for this. As I said before, our association is in a worse position than the producer to sell from sample. We will suppose that samples are sent. Then, whose honey are these to be taken from? For we must reasonably suppose that several members will have honey that is graded the same number, and a close record would be required to be kept so as not to get this sample business mixed up. In a co-operative association, every pound of honey that is short of being first-class must be graded in some way, or an injustice is being done to someone. It is just here that a co-operative association is working at a disadvantage. In the first place, a beekeeper who produces only a first-class article is better off of it, because what is gain to someone who has inferior honey, is loss to him, as his honey, by mixing with some not as good, would render the inferior salable.

Again, a co-operative association is working at a disadvantage in having to handle honey that is not first-class. With fruit, it is another matter, for a barrel of No. 2 may be just as good value—eat as well, and no difference in value for cooking—as No. 1, and an association does not lower its standard of good goods by selling any grade of fruit. Not so with the honey, however, and an association that sells inferior honey, except for manufacturing purposes, would never build up a trade for their output, and the manager who would expect to be counted a fit subject for an insane asylum. Not only must a co-operative association be a failure from a financial standpoint, but it should be discouraged from the simple fact that it would have a tendency to encourage the production of inferior honey, because it would be lost sight of in the general mix-up.

The other thing Mr. Chrysler comments on is what I stated about prices. Just here, again, he falls into error by supposing things, and by believing all that is told him. He is not the first one, though, who, before to-day, has worked out a line of argument on supposition. He says: "If I am correctly informed, he paid as little as 3 cents per pound less than the market price." If Mr. Chrysler, in "The Farmer's Advocate," or any as good, can prove the truth of that, I wish he would. I deny such allegation, and, when either abuse or personal matters are brought into an argument, while not pleasant, I take it as an indication of weakness in my opponent's position. I think Mr. Chrysler has got things mixed again. It may be this he refers to: Last year I bought in advance a beekeeper's crop of honey at a stated figure. As the price of honey advanced, I paid him just \$52.80 more than I promised for only 1,920 pounds. If his proposed co-operative association will do better than this, it will be to their credit.

As to Mr. Chrysler's explanation as to beekeepers becoming shareholders, at \$25 per share, the limit being ten shares, he does not say what the inducement is to take more than one share, nor why he limits it to ten shares, unless it be that prohibited things are frequently more valued, and the more shares, I suppose, the more "say," because one would hardly invest more than nec-

essary, unless he had votes to correspond; and if this be the case, then it is worse for the "other fellow," who has small investment in shares, but possibly more in honey, as he would have to fall in with the majority.

Mr. Chrysler's plan of engaging salesmen to work on commission is on a par with the rest of it. Would not a producer better sell his own honey, and make this commission? Or, how much commission would compensate one? As Mr. Chrysler has in view the great West in disposing of honey, how much, suppose you, would a producer get for his honey after paying one to go out under so much expense, to say nothing of the expense of the manager and others at home? And who, think you, would make the most bad debts, the beekeeper selling his own honey, or a salesman whose commission was according to amount of sales made? I venture to say that business done the first year must be at a loss. A co-operative association is at a disadvantage here, as their remaining in business from year to year depends entirely on the supply from their members. With a private individual handling honey, it is quite different. He can spend his capital as he chooses, and if he cannot ship honey procured from his own Province, he can import it, so as to hold his customers from year to year. This fact, along with his freedom to accept or reject any honey offered—something an association cannot do—is what Mr. Chrysler has apparently overlooked entirely.

One more question asked by Mr. Chrysler, which is entirely foreign to this subject is, "Who of the honey-buyers that have been advertising for honey has the grit to come out openly and publish the price they are willing to pay for what they want?" With the uncertainty, each year, of the quantity of honey available, and possible value of it, how could they be expected to do this? It might keep them busy. I think the buyers do enough advertising without running such risks as that. In fact, they are doing all the advertising, as it is, which is a pretty good indication that a co-operative association is not needed in Canada, at least, for the sale of honey. What is wanted is more advertising on the part of the producer who has it to sell. I have never seen such an advertisement in the advertising columns of "The Farmer's Advocate," and in the only journal devoted exclusively to apiculture in Canada, if ever there, it is so long since that I cannot remember seeing it. I will conclude by saying that, if any reader of this article has honey to sell, advertise it, and you will not require the help of a co-operative association to dispose of it.

Huron Co., Ont.

## GARDEN ORCHARD.

### EXPERIENCE WITH SPRAY PUMPS WANTED.

Editor "The Farmer's Advocate":

I would like to have some more information about spray pumps and spraying outfits. Myself, and hundreds of other farmers in this north country have never seen any other spraying outfit than a watering can or knapsack sprayer. Both are very good, but mighty slow when there is two or three acres of potatoes to spray right in the middle of haying. When the weather is suitable for spraying it is suitable for haymaking, and the hay generally gets the benefit of the doubt. The farmer harvests the clover to feed his cows in winter, and the bugs harvest the potatoes. I would like to hear, through the columns of "The Farmer's Advocate," from some farmers who have had experience with up-to-date sprayers suitable for potato-spraying, as that kind of sprayer interests us most in New Ontario, there being very few apples grown here yet; we can grow the "Pomme de Terre" to perfection. There are some knapsack and hand sprayers that are very good, while others are worthless, and I presume there are some of the larger and more expensive sprayers not up to much, either. A good up-to-date sprayer cannot be purchased at any grocery store, like axe-handles or axle grease; the farmer has to send the cash to the manufacturer and take what he gets, hence the benefit of the experience of farmers who have used or seen used the different kinds of sprayers. Almost any farmer who can read knows when to spray, and what to spray with. The greatest difficulty with most farmers in these times of high wages and scarcity of labor is how to spray quickly and thoroughly.

P. R. OWENS.

Nipissing District, Ont.

[Note.—Sprinkling is not spraying. A watering can is not the right way to apply even so simple a spray mixture as Paris green and water, it being wasteful of material, and more or less liable to cause "tip burn," owing to the excess of the spray fluid that runs down and adheres to the tips of the leaves. Application of a fine spray under high pressure largely obviates this danger, economizes material, saves much time, and insures more complete protection from bugs. Another great advantage in districts where blight and rot are troublesome is that, with a spray

pump, Bordeaux mixture may be applied, and the above troubles largely prevented. There is a first-class spray pump offered through our columns, and we have no hesitation in commending it and the firm which advertises it to subscribers generally. At the same time, we shall be very glad to hear from farmers who have had experience in using spray pumps for any and all purposes.—Editor.]

### THE STRAWBERRY AND ITS CULTURE.

The strawberry is one of our most valuable fruits, and what makes it all the more important is that it can be grown on any soil and in almost any climate; there are a great many varieties, adapted to meet all kinds of soil and climatic conditions. It is claimed they have now originated a berry that will endure a temperature of 40° below zero without any covering during the winter, so that by a little protection this fruit can be grown almost anywhere that man can exist. It will certainly prove a great blessing in our northern countries, where heretofore it was thought impossible to grow this fruit, and where fruits of any kind are so much prized. We are greatly indebted to our fruit experiment stations for the many new and hardy varieties of fruits they have already given us, and we may expect in the future ever greater results, since these stations are of comparatively recent organization, and their work may be considered as yet in its infancy. It is only recently that our Government, as well as other countries, have taken this matter in hand; previously new varieties of fruits, grain, etc., were largely the results of chance. We may now expect great results; fruits of improved quality, hardness and keeping qualities, that will enable us, with cold storage, improved refrigerator cars, and rapid transportation to put our fruit in distant markets.

Strawberries of one kind or another are found growing in almost every country, but these found growing wild or uncultivated, like most of our other fruits, originally were small and usually of an inferior quality. It is by cross-pollination, carefully selecting the plants for propagation that we produce the best fruit; growing them from seed, and possibly out of thousands, only a few may show indications of some improvement, which must be still further tested before they can be recommended to the public. Such is the work of our fruit stations. Truly agriculture, especially horticulture, requires the most skilled scientists, and those engaged in that work are among the greatest benefactors to humanity.

Many years ago, when strawberries were first cultivated in England, it is said they put straw between the rows to keep the fruit clean, and prevent it rotting on the wet ground, and it is surmised they may have got the name strawberries in that way; others incline to the idea that the name came from Straw, which was a corruption of the Anglo-Saxon word Strae, from which we have our English word stray, from the plants sending out runners and wandering or straying about.

I do not know of any plant that is capable of producing such an abundance of fruit in proportion to its size as the strawberry plant, as many as 25,000 quarts are said to have been grown from one acre. It is indeed a marvel of nature's wonderful productiveness! There is no better fruit grown, and being the earliest to ripen, makes it all the more appreciated. It seems to contain all the elements that the human system requires; just the medicine that we need at that season, and not nearly so unpleasant to take as many of the doctor's prescriptions. If there were more berries and fruits of all kinds used there would be many fewer doctor bills to pay. Every farmer should have a fruit and vegetable garden, where a good supply could always be obtained, ample to meet the family wants throughout the season. Such a garden, if well cared for, will add much to health and happiness, and be a source of pleasure from early spring to late fall. Those who have not already such a garden should see that they have one this spring; and get the strawberries started, so that another year those boys and girls will have all the berries they want. Don't depend upon buying them as you did last year, and then not have a supply on hand half the time, and the boys and girls half starved. It pays to feed them well; they can do more work. I do not think there is any country that can produce finer or better-flavored berries than we can here in parts of Canada. I have sampled some grown in California, where they can grow berries twelve months in the year, and while they were large and handsome, they lacked the rich strawberry flavor so much prized. We are in the very best climate to produce the very best berries; therefore, every farmer should see to it that he has a supply of the best of all fruits on hand during the season.

The writer well remembers when he saw the first berries offered for sale—being only part of a pail—over fifty years ago. Now every family in town must have a daily supply during the season; such is largely the case all over our country, where a supply can be secured. They are no longer looked upon as a luxury, but as a real staple article of food, and a necessity. The strawberry business has grown from small garden plots to acres and acres, and the product is shipped out in carload lots by the dozen from nearly every railway station in the Niagara District. Then, too, this section is dotted with canning factories, that put up immense quantities to supply the demands coming from every quarter.

## PREPARATION OF LAND FOR STRAWBERRIES.

Some growers prefer a clover sod turned under after haying, and applying plenty of farmyard manure, working it well in the ground by frequent cultivation. The only objections that might be raised are that you are more likely to have blue grass and weeds to contend with; and the grower may also be bothered with the white grub eating the plants. I would prefer ground upon which had been grown the previous year some hoe crop, such as potatoes, carrots, mangels, or even corn, the stubble can easily be removed. An abundant supply of manure should be applied in the fall, or during the winter, and thoroughly incorporated with the soil as early in the spring as possible, and the cultivation continued up to planting time, at frequent intervals. One need have no fear of getting too much manure in the soil; it gives humus, which must be got from the manure, or decayed vegetable matter, that will hold the moisture to supply the enormous demand made by the strawberry plant at the time the fruit is swelling and ripening, during June and July—usually hot and dry months. An application of potash, which can be supplied by wood ashes, is also very beneficial, especially on light or sandy soils. I prefer applying these by several light applications during the season, and an early application the following spring, as soon as vegetation starts. If the soil is in ideal condition, one need not have much fear of a drouth affecting the crop. It will pay very much better to grow, say from 14,000 to 20,000 quarts of big berries on one acre of land, than that quantity, on say three acres, as is often the case. The cost of the plants, setting them, the cultivation and hoeing, in either case, is the same per acre. A small berry, peach, apple, etc., makes practically the same demands on the soil for nourishment to produce it, and takes from it about the same valuable ingredients as a large one, the only difference being that the latter has drawn upon our reserve water supply stored in the soil by the humus. This large fruit, especially the strawberry, is not equal in flavor to the smaller; nature does not seem to be able to supply quite enough flavoring material for these very large berries. The majority of people want large berries, as well as other fruits, and are willing to pay the price for the extra water we have induced nature to add; therefore, I say, since they can be grown cheaper, they are the berries that make the money.

## VARIETIES.

The varieties of strawberries are legion, and I would not care to trespass upon those whose business it is to laud the many new, improved and wonderfully-productive kinds. I have in years past, when not so ripe with experience, tried some of these fancy high-priced varieties, and came to the conclusion that the other fellow, who sold the plants, was almost invariably the only one that got the fancy prices. For many years the Wilson and Crescent were our leading berries. They served us nobly for many years. Now, in the Niagara District, when I say 90% of all the berries grown are Williams, I am within bounds; such is, and has been for several years, their popularity. Michael's Early, on some soil, has done remarkably well, being early and of splendid quality, but its small size and lack of firmness are against it as a shipper, though a good berry for home use. The only safe way to do is to test for yourself from among the leading varieties, and find what kinds seem to be best adapted to your soil. A berry adapted for one locality may not succeed in another, though not far removed.

Lincoln Co., Ont. W. B. RITTENHOUSE.

## SPRING WORK IN THE VINEYARD.

By Lhus Woolverton.

## REPAIRING THE TRELLIS.

Pruning of the grapevines will now be completed by the up-to-date fruit-grower. Next in order comes the necessary repairs to the trellises. Many posts will need renewing, and the wires being tightened up, and the braces securely fastened. Where wooden braces are not convenient, wire stays may be used to good purpose, by anchoring a good-sized stone, about two feet below the surface of the ground, four or five feet beyond the end post. A wire to this anchor from top of the post will hold it securely for the tightening of the wires. There are many instruments sold for the tightening, but, in the absence of one, small blocks, each about six inches long and two inches in diameter, with a small place rounded in the middle, and a gimlet hole to receive the wire, placed against the outside of the end post, will wind up the wires and hold them firmly. Any time in the season, when a wire slackens, an additional turn of the block will bring it in place.

## TYING THE VINES.

Tying up the vines will, of course, follow, as soon as the weather is warm and the ground dry enough for the tiers. In the Niagara District, this work is usually done by women, where vineyards of from ten to twenty acres are not uncommon. Women and girls have nimble fingers, and can tie more quickly than men. The usual pay is ten cents an hour, but sometimes it is undertaken as piecework. A soft, loose string is sold in the

shops for this purpose, and it is either in balls or skeins. The writer prefers the latter, because, by laying these down on a wooden block, the whole can be readily cut with a sharp axe into the proper lengths, and a parcel of them carried in the belt. Raffia, the material used by nurserymen in tying buds, is perhaps better, because, in the spring pruning it will give way from the wires with a quick pull, while the string needs cutting. This latter can be bought at about 20c. a pound. Clearing up the prunings and burning them follows the tying, after which the vineyard is ready for cultivation.

## PROPAGATION OF VARIETIES.

To the nurseryman, all these prunings of the last year's grape-wood have a value for propagation purposes; and, to the fruit-grower who wishes to extend his vineyard at the least expense, or who would like to raise a few thousand vines for sale or exchange, this grape-wood has equal value. In the Chautauqua district, south of Lake Erie, the writer has visited field after field devoted entirely to growing yearling vines by the thousands and tens of thousands; yes, even by the million. Raising young grapevines is so simple a process that any fruit-grower can do it. The prunings of each variety are kept separate, and cut into lengths of about two nodes each. These are tied together in bundles of, say, twenty-five, and buried in earth to callous or harden over the cuts, where they remain until the ground is ready for planting them. Then, a long line is drawn, and a crevice made spade-depth along the line, without removing any earth, and in this a boy thrusts the cuttings, singly, about six inches apart, inclining them a little, if necessary, so as to have each deep enough to leave but a bud above ground. A man following can press the earth back firmly against the cuttings. In this way, a man and boy can plant thousands of cuttings in a day. The rows should be about three feet apart, to allow of horse cultivation. In one year these cuttings will be large enough for sale or planting out as yearlings, although sometimes they are grown for two years before removal.

## VARIETIES TO PLANT.

The following is a list of varieties for profit, suitable for the milder sections of the Province of Ontario:

Black.—Campbell, Moore, Worden, Concord, Wilder.

White.—Niagara, Diamond.

Red.—Delaware, Lindley, Agawam, Vergennes.

These need not be laid down for winter protection south of latitude 44 degrees, but farther north they should be grown in the Fuller system, with arms of old wood very near the ground, and laid down and covered in winter. The list of varieties given above is so selected as to give a succession, from earliest to latest, the Campbell, for example, being the first to ripen of the black, and the Wilder the best keeper for winter market. For main crop, the list may be reduced to Concord of the black, Niagara of the white, and Agawam of the red kinds; and, in planting a commercial vineyard, the larger proportion should be of these varieties.

## PLANTING.

The first thing necessary for the intending planter is to measure off the ground for the vineyard, and calculate the number of vines needed. This will depend upon the distance apart of the rows, and of the vines in the rows. For strong growers, such as Concord, Moore, Niagara and Diamond, eight by eight feet is suitable, unless for use of a two-horse disk, one chooses to make the rows ten feet apart. For weak-growing vines, such as Delaware, half the distance will answer, or, say, rows six feet apart, and vines four feet in the rows.

The posts and wires need not be purchased until the end of the first year.

## TRELLISING.

There are many methods of trellising practiced, but the simplest for the commercial vineyard is that for the Kniffen system of training, which only requires two wires. The end posts, and, if the rows are long, the middle posts, should be good and stout, and firmly set at least two feet in the ground, and well braced. Then, for the intermediate ones, much lighter posts will answer. These may be sharpened and driven into place with a heavy maul. On these the wires are strung by wire staples, the top one between five and six feet from the ground, the lower one about three and a half feet. If the blocks for tightening are to be used on the end posts, it is necessary to bore a hole for the wire to go through these posts, to be wound up on the blocks.

This system of trellising and training the grapevine is much more economical than any other, because in it the young wood hangs down as it grows in summer, while, in the renewal of the Fuller system, there is endless work summer pruning and summer tying, or else a most neglected tangle throughout the vineyard.

## DUTY ON NURSERY STOCK.

Even professors err, painstaking and careful as they habitually are. A correspondent draws attention to a misstatement in an answer by Prof. H. L. Hutt, of the O. A. C. (issue March 26th), regarding the duty on fruit trees coming into Canada from the United States. This was given as 20 per cent. As a matter of fact, the general duty on such nursery stock as apple, pear, peach and cherry trees is a specific one of 3 cents per tree. The general tariff applies to importations from the United States. The preferential tariff (applying to Great Britain and certain of the British Colonies) is 2 cents per tree. On plants and shrubs, the general duty is 20 per cent., ad valorem, the preferential tariff being 12½ per cent.

## THE FARM BULLETIN.

## "DEFENCE, NOT DEFIANCE."

Editor "The Farmer's Advocate":

I have read with considerable interest the correspondence in your last two issues relating to "Military Drill," though I was not fortunate enough to see Miss Watt's original contribution to this interesting discussion.

I have had some experience in militia matters, and think the idea for which our militia exists is lost sight of, viz.: that of "Defence."

Miss Watt would surely not advocate the Government of this country transforming its warlike stores into agricultural implements in the present state of society. I think this country stands in a unique and eminently satisfactory position when compared to the nations of Europe, or even to the south of us. We are not armed to the teeth, and do not maintain any standing army. The permanent corps, as it exists today, is simply an instructional body, and the militia exists primarily and all the time for the purpose of defence.

The knowledge which should be imparted to our young men, and boys too, is the knowledge of how to handle a rifle, and how to shoot straight. Given that, such drill as a man gets at the annual camp could be imparted in a very short time, should the emergency arise.

Let Miss Watt, and persons of that class, cease decrying the militia, and in the place to urge every respectable young man of their acquaintances to become a member of the local militia company, or rifle Association, and there will be no more scenes as depicted in the Kentville Advertiser. Down in this part of the Niagara District, where the "oldest inhabitants" can remember the Fenian Raids, and where we read of the noble stand taken by our forefathers on this historic ground, at Stony Creek, Lundy's Lane, and Queenston Heights, we may be pardoned for wishing to be prepared for any emergency, as we remember that history has the very bad habit of repeating itself.

We want our young men to become expert rifle shots, not that they may go forth each morning to kill someone, but that they may be of some use should the occasion arise in repelling an invasion. There would be thousands offer themselves in such a worthy cause should they be needed, but if only ten per cent. were expert rifle shots, that would be the strength of our chain. The illustration of what a body of good rifle shots can do is in the recollection of us all, when we remember that a comparatively small body of Boer farmers held at bay all the strength of the British army for two years.

Let Miss Watt and her friends do all in their power to stimulate the furtherance of rifle associations in every locality, and urge all her men friends to become familiar with the use of the rifle, and we shall have nothing to fear as a country, either from without or within. "Military-drilled farmer" may be pardoned for his enthusiasm. The life at camp, if properly conducted, is certainly most enjoyable, and it is very necessary that we have the nucleus of a standing army that is drilled in evolutions and tactics, but this army will never be one of aggression or offence. Our motto is, "Defence, not Defiance," and Miss Watt may rest assured that this country will never be a military country, in the true sense of the word, and when millennial days come we shall be badly off as farmers if we depend for our stock of implements and pruning shears on the transformed swords and spears spoken of by the prophet Isaiah.

(CAPT.) A. E. KIMMINS,

Stony Creek Co., 77th Regiment.

Wentworth Co., Ont.

The crop-reporting board of the Bureau of Statistics, of the Department of Agriculture, finds, from the reports of the correspondents and agents of the Bureau, that the average condition of winter wheat on April 1st was 91.3 per cent. of a normal, against 89.9 on April 1st, 1907; 89.1 on April 1st, 1906; 91.6 on April 1st, 1905; and 86.2, the average of the 10 years of 1898-1907, on April 1st.

## AN ACQUISITION TO RURAL PROGRESS.

Editor "The Farmer's Advocate":

Some time ago I wrote re the automobile, taking a more liberal view of the question than some of my fellow farmers. The question has since that time been before Parliament, having been dealt with by the Municipal Committee, with the result that very little change has been made in the law, showing conclusively that the opinion of those in authority is that the auto is an institution that has come to stay, and in a very short time will have ceased to be a novelty enjoyed by the few, but will become a very useful means of transportation, utilized by many; and, personally, I think there is no greater acquisition to the progress of our country than the auto, and it now remains for the manufacturers of motors to give some consideration to the farmer and his needs, by supplying a vehicle suitable for the many uses to which the farmer must adopt his general conveyance, and the firm that can do this, and produce it at a cost not too great, will win a place in the hearts of the rural folk that will be worthy of their ambition. I can see in the auto a means of transportation that will enhance the value of the farm very materially. We have many farms most suitable for the culture of vegetables, and such produce, that could they be utilized as such, instead of for grain and stock-raising, would be twice as valuable as they are at present, and the reason they are not utilized for such purposes is because they are too far from the markets; whereas, could such produce be conveyed to market by motor power, one hundred miles would be quite as convenient to the city as twenty is under existing conditions.

Why not, then, throw aside all feeling of animosity toward the auto, and ask for some consideration at the hands of the manufacturers of motor vehicles, by means of which the farmer may be in the forefront in the march of civilization, besides placing such vehicles in the hands of persons who will give every user of the King's highway equal rights and justice, which, unfortunately, a few of those who possess them at the present time are not disposed to do?

Simcoe Co., Ont.

W. H. SMITH.

## TREATING SEED WHEAT FOR SMUT.

Editor "The Farmer's Advocate":

Among the things farmers in general have to contend with, is the wheat being affected by smut. There have been quite a number of plans recommended for treatment, and I herewith wish to give one we tried, that worked to perfection last season on wheat that was bad with smut:

For 20 gallons of water, we mixed one-half pint formalin in a coal-oil barrel; in this we put wheat enough to come near the top of liquid, and then mixed it well, in order that all oats and wheat affected by smut would come to the top. Next we took a wire-screen dipper and skimmed all off the top of oats and smut, and left the wheat in liquid for about 20 minutes, then dipped it out with wire dipper into bags, setting on tubs to drain, so that no liquid would be wasted, and in two hours it was ready for sowing.

By this plan the wheat is thoroughly saturated.

## TRADE TOPICS.

Choice white seed oats of superior varieties, grown from seed obtained of a leading Canadian seed house, are advertised for sale in this paper by Mr. John Lee, of Galt, Ont. Write him for particulars, stating that you saw the advertisement in "The Farmer's Advocate."

Molassine meal used in a mixture with ordinary farm foods for horses, cattle, hogs and poultry, has, judging from many testimonials from farmers and others having used it, been proved a very wholesome and economical stock food, effecting a considerable saving in the cost of feeding, while the health and condition of the animals has shown very satisfactory improvement, and weight of flesh has been gained at moderate cost of production. For particulars, see the advertisement in this paper.

## ALFALFA AS A SILAGE CROP.

The Kansas Experiment Station, according to the Drovers' Journal, reports an experiment of putting the first cutting of alfalfa into the silo. On account of continuous rains, the alfalfa had been allowed to stand too long, and, consequently, was rather coarse and badly rusted, and contained a considerable quantity of horse weeds (Leptilon Canadense). This alfalfa would have made exceedingly poor hay. When the silo was opened, it was found that the top two feet was moulded badly, but below that it was in excellent condition. The moldy silage was hauled into the pasture, where it was noticed that the cows ate it readily. When fed in the stable, it was noticed that two-thirds of the cows ate the silage, weeds and all, and the other third ate all but the weeds, and it was possible to keep up the flow of milk

in July when the pasture was dry and scanty by the use of this alfalfa silage.

A FREE TRIAL THAT MEANS SOMETHING.—Most of the "Free Offers" that appear in advertisements do not pan out very well. There is usually some string attached or some conditions to be complied with that amount to a good price for all you get. A notable exception, however, is the offer made by Mrs. F. V. Currah, of Windsor, Ont., as stated on page 706, in her advertisement, entitled, "Proving by Actual Experiment." She sends, absolutely free, a box of Orange Lily, an expensive, concentrated remedy, put up in pure, hermetically-sealed, gelatine capsules, which is sufficient for ten days' treatment, and which is worth 35 cents. Mrs. Currah finds it pays to do this, for the reason that being a strictly scientific preparation, its good effects are noticeable from the start, and almost all who give it a trial continue its use until completely cured.

## GOSSIP.

## THE FORESTVIEW HEREFORD SALE.

The dispersion sale of the noted prize-winning Forestview herd of Hereford cattle belonging to Mr. John A. Govenlock, of Forest, Ont., to take place on May 13th, as advertised in this paper, should attract the attention of breeders of this popular beef breed, and farmers desirous of grading up their cattle to produce profitable feeders. The record of the Hereford breed at the great International Live-stock Show, at Chicago, in competition with all other breeds in the fat-stock classes, is a proud one, proving beyond doubt their superior feeding propensities. The Forestview herd has made

a splendid record in the last few years in winning first prizes, championships and herd prizes at the Canadian National and other leading exhibitions, as stated in the advertisement on another page. A useful lot of Shorthorns are also included in the sale.

Dr. Geo. Bell, V. S., D. V. D. S., of Kingston, Ont., advertises in this paper his veterinary-medical specific for ailments of horses and other farm stock, which has been used by many hundreds of farmers and livery owners in the United States and Canada in the last twenty years, numerous testimonials to its marvellous curative powers having been received, a sample of which is the following:

Brockville, Ont., May 18, 1906.

My dear Dr. Bell,—You have the best medicine in Medical Wonder, for sick horses, that it has ever been my privilege to use, or see others using. I have yet to see a case where it fails to deliver the goods. It is a great boon to horsemen in Canada, and should prove so throughout the civilized world.

Yours truly,

ANTOINE WENDLING.

(Owner of Deverus, 2,114.)

Agents are wanted in every county. Bright young men, general blacksmiths and others desiring to take up this work are invited to correspond with Dr. Bell. Address: 110 Clarence St., Kingston, Ont.

The imported, six-year-old, chestnut Hackney stallion, Wadsworth Squire, 15.2, by the champion Garton Duke of Connaught, is advertised for sale in this paper by Mrs. E. M. Routledge, Georgeville, Quebec. He is said to have proven a very successful sire of high class harness and saddle horses.

## THE GARDNER-PEARSON SALE.

The postponed sale of Shorthorns from the herds of F. A. Gardner, Britannia, and S. J. Pearson, Son & Co., Meadowvale, Ont., which took place on April 8th, despite unfavorable weather and almost impassable roads, was fairly well attended, many bidders being present from considerable distances. Though the prices obtained were in some cases rather low, the best things brought fairly good figures, and on the whole the sale was reasonably successful. Capt. T. E. Robson and John Smith, M.P.P., as salesmen, conducted the sale very acceptably, and buyers secured good bargains. Following is the list of animals sold for \$70 and upwards:

## COWS AND HEIFERS.

Scotch Thistle 2nd (imp.), 6 yrs.; J. F. Mitchell, Burlington.....	\$300
Scotch Thistle (imp.), 8 yrs.; A. McKinnon, Hillsburg.....	185
Mysie Maid, 2 yrs.; John Campbell, Woodville.....	160
Scotch Thistle 3rd, 2 yrs.; J. Ray, Scromberg.....	165
Scotch Thistle 4th, 2 yrs.; John Dryden & Son, Brooklin.....	140
Scotch Thistle 5th, 1 yr.; N. Cameron, Norval.....	110
Scotch Thistle 6th, 1 yr.; John Campbell.....	145
Nonpareil 64th, 2 yrs.; J. F. Mitchell.....	100
Marchioness 16th, 2 yrs.; John Goodfellow, Meadowvale.....	75
Mena Maid 8th, 6 yrs.; Oscar Armstrong, Mayfield.....	85
Mena Maid 4th, 3 yrs.; J. Willis, Brampton.....	85
Lady Banff, 4 yrs.; A. McIntosh, Elora.....	80
Mena Maid 12th, 2 yrs.; Thos. Short, Brampton.....	75
Lady Brant 8th, 3 yrs.; T. Andrews, Meadowvale.....	75
Loretta, 4 yrs.; J. A. Fraser, Ventry.....	80

## BULLS.

Gold Mine (imp.), 5 years; E. C. Forster, Milton.....	\$170
Scottish Archer, 3 yrs.; W. B. Gardner, Meadowvale.....	100
Brave Scot, 2 yrs.; J. A. Forster, Ventry.....	105

## FORTHCOMING EVENTS.

April 29th to May 2nd.—Canadian National Horse Show, Toronto.  
 May 6th to 9th.—Montreal Horse Show.  
 May 6th and 7th.—Glasgow National Stallion Show.  
 June 18th to 20th.—Galt Horse Show, Galt, Ont.  
 June 18th to 27th.—International Horse Show, Olympia, London, England.  
 June 30th to July 4th.—Royal Agricultural Society's Show, at Newcastle-on-Tyne.  
 June 29th to July 9th.—Dominion Exhibition, Calgary, Alta.  
 July 11th to 17th.—Winnipeg Industrial Exhibition.  
 July 21st to 24th.—Highland Society's Show, at Aberdeen.

Thos. Southworth, the efficient Director of Colonization and Immigration in the Ontario Government, has resigned this office to accept the position of Parks Commissioner in the City of Toronto.

Two Suffolk-Punch stallions, one five, the other three years old, are advertised for sale by Mr. Thos. Knaggs, Vandecar, Oxford Co., Ont.

The auction sale to take place on April 23rd, of the great herd of Holstein cattle and high-grade Holstein dairy cows, belonging to the Rathbun Co., at Deseronto, Ont., should claim the attention of dairymen and farmers generally. The 140 breeding ewes, with lambs, should also find ready buyers, as also should the Berkshire and Yorkshire breeding swine. Deseronto is a station on Bay of Quinte Railway, nine miles from Napanee Junction, on the G. T. R.

Editor, "The Farmer's Advocate":

In your issue of Feb. 27th, Prof. Cumming, of the Nova Scotia Agricultural College, Truro, writes that he has a calf which he thinks is a record, at 136 lbs. at birth. I have one that weighed 139 lbs. in less than three hours after it was dropped, March 30th. I took it away immediately, so that it got no milk before being weighed. The mother is a 15-16 Shorthorn, and the sire a Holstein. Who can beat it? D. BURCH, Norfolk Co., Ont.

## SALE DATES CLAIMED.

April 17th.—Myrtle Sales Association, at Myrtle, Ont., Shorthorns, Clydesdales, Yorkshires.  
 April 17th.—R. Reid & Co., Hintonburg, Ont., imported Clydesdales.  
 April 23rd.—Rathbun Company, Deseronto, Ont., registered Holstein and high-grade dairy cattle, Shropshire sheep, Yorkshire and Berkshire swine.  
 May 13th.—John A. Govenlock, Forest, Ont., Herefords and Shorthorns.  
 June 4th.—John Dryden & Son, Brooklin, Ont., Shorthorns.

**READY MONEY**

A good friend always. If you deposit your money in the Bank of Toronto it will be safe while you leave it, and ready when you need it, and will be

**ALL THE TIME**

Earning for you three per cent. interest. Small or large sums may be deposited at any time.

**70 BRANCHES** in Ontario, Quebec and the West.

Capital, \$4,000,000  
Reserve, \$4,500,000

**BANK OF TORONTO.**

**MARKETS.**

**TORONTO.**  
**LIVE STOCK.**

Receipts of live stock at the City and Junction markets last week were larger than for the previous two weeks, there being 231 carloads, composed of 4,978 cattle, 2,305 hogs, 507 sheep, 1,119 calves, and 111 horses. The quality of cattle was better than at any market since last Christmas. Trade was brisk, especially at the beginning of the week, with prices higher in all classes, but more especially for cattle prepared for the Easter market, of which there were some fine specimens.

At the Junction market, on Monday, April 13th, receipts numbered 1,114 cattle; generally good; prices steady. Export steers, \$5 to \$6; bulls selling at \$5.50 to \$5.75; export bulls, \$4 to \$4.75; picked butchers', \$5.50 to \$5.75; loads of good, \$5 to \$5.25; medium, \$4 to \$5; common, \$4 to \$4.50; cows, \$3.50 to \$4.40; canners, \$3 to \$3.25; calves, \$5 to \$6 per cwt.; milkers, \$30 to \$50 each. Sheep, \$5 to \$5.50 per cwt.; yearling lambs, \$8 per cwt.; spring lambs, \$5 to \$10 each. Hogs, \$6.50, fed and watered; \$6.25, f. o. b. cars at country points.

Exporters.—Export steers sold last week from \$5 to \$5.60, but a few of the best were bought by the Harris Abattoir Co. for the local trade at \$5.75 to \$6, and one lot of six prime steers at \$6.50, while one two-year-old steer, 1,390 lbs., a pure-bred Shorthorn, was sold at \$7 per cwt. Export bulls sold at \$4 to \$4.75, and a few of prime quality reached \$5 per cwt.

Butchers.—Choice picked lots of prime heifers and steers, 1,050 to 1,200 lbs. each, sold at \$5.50 to \$6; loads of good, \$5.20 to \$5.50; medium, \$4.70 to \$5.10; common, \$4.20 to \$4.60; good cows, \$4.25 to \$4.60; common cows, \$3.50 to \$4; canners, \$2 to \$3; butcher bulls, \$3 to \$3.75 per cwt.

Milkers and Springers.—Trade in milkers and springers was strong, owing to two buyers from the East, one from Montreal, and another from Quebec, being on both markets. Prices for medium to good cows ranged from \$35 to \$45, with a very few extra-quality cows at \$50 to \$58 each. Common, light cows sold at \$20 to \$30.

Veal Calves.—Deliveries were much larger than in months, but not greater than the demand. Prices ranged from \$4 for common to \$5 and \$6 per cwt. for medium to good, and choice sold at \$6.50 to \$7.50 per cwt.

Sheep and Lambs.—Receipts light. Trade brisk, and prices higher. Export ewes, \$5 to \$5.50 per cwt.; rams, \$4 to \$4.75; yearling lambs of common quality, \$6.50 to \$7.50; while prime, picked lots of ewes and wethers, for Easter purposes, at \$8 to \$9 per cwt.; spring lambs sold from \$5 to \$10 each, the bulk selling at \$6 to \$7 each.

Hogs.—The market for hogs has been strong for a couple of weeks, with prices rising almost daily, until selects were quoted at \$6.50, fed and watered at the

market, and \$6.25, f. o. b. cars at country points.

Horses.—J. Herbert Smith, Manager at the Union Horse Exchange, Toronto Junction, reports the horse trade as being good, better than was anticipated. Buyers from Guelph, Elmira, Acton, Oakville, St. Catharines, Bowmanville, as well as many other parts of Ontario, and several from the city. Over 100 horses were sold at the following prices: Drafters, \$155 to \$195; general-purpose, \$150 to \$190; delivery, \$140 to \$180; drivers, \$125 to \$195; and serviceably-sound, \$65 to \$127.50.

**BREADSTUFFS.**

Wheat.—No. 2 white, winter, 89c. to 90c.; No. 2 red, 90c.; No. 2, mixed, 89c.; Goose, 87c.; Manitoba, No. 1 Northern, \$1.20½; No. 2 Northern, \$1.16½; feed wheat, 69c.; No. 2 feed, 64c., on track at Georgian Bay ports.

Barley.—No. 2, sellers, 63c.; ibuyers, 60c.

Peas.—No. 2, 88c., outside points.

Rye.—No. 2, 85½c. to 86½c.

Buckwheat.—No. 2, 67c.

Oats.—No. 2 white, 46c., outside; 49c., on track at Toronto; No. 2, mixed, 44c.

Bran.—\$25, for car lots at Toronto.

Shorts.—\$26, for car lots at Toronto.

Flour.—Ontario, 90 per cent. patents, \$3.40 to \$3.50; Manitoba patent, special brands, \$6; second patents, \$5.40 to \$5.50; strong bakers', \$5.30.

**COUNTRY PRODUCE.**

Butter.—Market steady. Prices unchanged. Creamery, pound rolls, 32c. to 33c.; separator, pound rolls, dairy, 30c. to 31c.; store lots, 26c. to 27c.

Cheese.—Market strong; prices firmer. Large, 14c.; twin, 14½c.

Eggs.—Market firmer, at 17c. to 18c.

Honey.—Market firm; prices steady. Extracted, 11c. to 12½c.; combs, per dozen sections, choice clover, \$2.75 to \$3.

Potatoes.—Market steady. Ontarios, 85c.; New Brunswick Delawares, 90c., for car lots, on track at Toronto.

Beans.—Prices unchanged. Primes, \$1.70 to \$1.75; hand-picked, \$1.80 to \$1.85.

Hay.—Baled, in car lots at Toronto, \$15.

Straw.—Baled, in car lots at Toronto, \$8 to \$9.

Poultry.—Receipts light; prices firmer. Turkeys, 20c. to 24c. per lb., dressed; chickens, 16c. to 20c.; old fowl, 11c. to 12c.; squabs, per doz., \$2 to \$3.

**TORONTO FRUIT MARKET.**

Receipts on the farmers' market were light. Prices easy, at following quotations. Spies, \$2.50 to \$3.50, and \$4 per bbl., asked for those in cold storage; Baldwins, \$2.50 to \$3; Greenings, \$2 to \$2.50; dried apples, 5½c. to 5½c.; evaporated, 7c. to 7½c. Onions, \$1.25 to \$1.40 per bag.

**HIDES AND SKINS.**

E. T. Carter & Co., 85 East Front St., wholesale dealers in wool and hides, were paying the following prices: Inspected hides, No. 1, cows and steers, 54c.; No. 2 inspected cows and steers, 44c.; country hides, 4c.; city calf skins, 10c.; country calf skins, 9c.; horse hides, No. 1, \$2.50; horse hair, per lb., 23c.; tallow, per lb., 4½c. to 5½c.; sheep skins, 70c. to 80c.

**TORONTO SEED MARKET.**

The Wm. Rennie Company quote the following as their selling prices for seeds: Red clover, No. 1, per bushel, \$14.40; red clover, No. 2, per bushel, \$14.10; alsike clover, No. 1, per bushel, \$12.30; alsike clover, No. 2, per bushel, \$11.10; alfalfa, No. 1, per bushel, \$13.80; timothy, No. 1, per cwt., \$7.75; timothy, No. 2, per cwt., \$7.25.

**CHICAGO.**

Cattle.—Steers, \$5.50 to \$7.30; cows, \$3.60 to \$5.75; heifers, \$3.40 to \$6.25; bulls, \$3.50 to \$5.10; calves, \$5 to \$6.75; stockers and feeders, \$3.25 to \$5.15.

Hogs.—Heavy shipping, \$6.05 to \$6.10; butchers', \$6.10 to \$6.20; light mixed, \$5.95 to \$6; choice light, \$6.05 to \$6.10; packing, \$5 to \$6; pigs, \$4.50 to \$5.50; bulk of sales, \$5 to \$6.

Sheep and Lambs.—Sheep, \$4.50 to \$6.25; lambs, \$6.50 to \$7.75; yearlings, \$6.75 to \$7.

**MONTREAL.**

Live Stock.—In the local market the offerings of cattle showed a very considerable increase last week. Notwithstanding, the market evinced a strong undertone, and prices advanced by from 10c. to 15c. per 100 lbs. The number of local and outside buyers was fairly large, and the demand, especially from the latter, was satisfactory. Choicest cattle are sold at 5½c. to 5½c. per lb.; fine, 5½c. to 5½c.; good, 4½c. to 5c.; medium, 4c. to 4½c., and common, 3½c. to 4c. per lb. The supply of sheep and lambs continued very light, and the tone of the market strong. Yearling lambs were in good demand, and sold at 7c. to 7½c. for choice, and 6½c. to 6½c. for good. Spring lambs were scarce, and prices ruled high, at from \$4 to \$8 each. Sheep were also scarce, and dealers were paying 5½c. per lb. for them. Notwithstanding the poor quality of the calves offered during the past few weeks, the demand for them was good, and nice stock sold readily at \$4 to \$6 each. A feature of the week was the demand in the hog market. Prices advanced in some cases as much as 1c. a lb., notwithstanding the general condition of the market and the period of the year. Supplies were light, and demand good. Selected lots sold at 7½c. to 7½c. a lb., 7½c. having been paid for choice stock, off cars, both on spot and for future delivery.

Horses.—Heavy-draft, 1,500 to 1,700 lbs., \$250 to \$300 each; light-draft, 1,400 to 1,500 lbs., \$225 to \$275 each; good blocks, 1,300 to 1,400 lbs., \$200 to \$225; express, \$150 to \$225; common plugs, \$50 to \$75, and choice saddle and carriage horses, \$300 to \$350 each.

Dressed Hogs.—Strong at marked advances. Sales of abattoir-dressed, fresh-killed stock were made at 10c. a lb. Pure lard, 11½c. to 12c., and compound, 8½c. to 9½c.

Potatoes.—A falling-off in receipts last week, and market considerably stronger. Dealers were paying about 80c. for good red stock per 90 lbs., carloads, on track, whites costing about 90c. These were available in car lots, on track, at an advance of 5c., and in broken lots at an advance of 10c. Smaller lots, delivered into store, \$1.10 per bag.

Eggs.—Prices last week advanced about 2 cents, fresh-laid changing hands at 20c. per dozen. Subsequently, they declined, and prices on Monday, 13th, were reported 17½c. to 18½c.

Maple Syrup.—New maple syrup was arriving freely last week, the quality being good. Demand was quite active. Sales were made at 6c. per lb. in wood, and at 60c. to 65c. each for tins of about 9 lbs. Sugar is coming along more freely. The quality is good, and sales were made at 8c. to 9c. per lb.

Butter.—Sales, wholesale, at 32c. per lb. Consumption moderate. On Monday, April 13th, stocks were reported scarcer and dearer at 33c. to 34c. for new-milk goods.

Cheese.—Dealers have continued to quote 13c. for best white makes, and 13½c. for colored, but practically no sales have been made at these or any other figures.

Grain.—Oats.—Eastern Canada, No. 2 white, 50c. per bush., carloads in store; No. 3, 47c. to 47½c.; No. 4, 46c. to 46½c., and rejected, 44c. to 44½c. per bush.; Manitoba rejected, 47c. to 47½c., here or North Bay.

Flour.—No export, and local trade quite moderate. Manitoba patents, \$6.10 per bbl., in bags; seconds, \$5.50; Ontario patents, \$6.30; straight rollers, \$4.75.

Feed.—The demand for bran continued very active, and, while Manitoba millers still quoted \$23 to \$24.50 per ton, in bags, they could sell at considerably more. Shorts, \$25 per ton. Ontario bran and shorts are about the same price as Manitobas, or perhaps 50c. more; ground oil cake, \$33 a ton; gluten meal, \$1.50 per 100 lbs.

Seeds.—Demand continues quite active, and shipments large. Red clover, \$23.50 to \$25 per 100 lbs.; alsike, \$18 to \$21; alfalfa, \$21 to \$22, and timothy, \$6.25 to \$7.50 per 100 lbs., Montreal.

Hides.—Demand reported fair. Quality continues poor as usual at this time of the year. Dealers have been paying 11c. per lb. for No. 2 calf skins, and 13c. for No. 1; beef hides being 5c., 6c., and 7c. per lb. for Nos. 3, 2 and 1, respectively, and selling to tanners at ½c. advance. Sheep skins, 75c. to 80c. each, and horse

hides, \$1.25 each for No. 2, and \$1.75 for No. 1. Tallow, 1c. to 5c. per lb. for rough, and 5c. to 5½c. for rendered.

**BUFFALO.**

Cattle.—Prime steers, \$6.50 to \$6.85. Veals.—\$5 to \$8.25. Hogs.—Heavy and mixed, \$6.45 to \$6.50; stags, \$4 to \$4.50. Sheep and Lambs.—Lambs, \$5 to \$8.10.

**BRITISH CATTLE MARKET.**

London.—London cables, 18c. to 14c. per pound, dressed weight; refrigerator beef, 11c. per pound.

**GOSSIP.**

**NEW SHIRE IMPORTATION.**

That the Shire horse is rapidly gaining favor with the Canadian public is evidenced by the greatly-increased demand experienced by the importers of this great English draft breed of horses. It is only of comparatively recent date that any organized effort has been made to bring before the notice of Canadian farmers the sterling worth of the "Shire" as an ideal draft horse, possessing all the attributes necessary—great size, strong, flat bone, robust constitution, easy feeding and clean, true action—to particularly well fit him for the purposes for which he is intended, and certain it is that the more that is seen of the Shire horse, and the better he is understood, the more popular he becomes. As is now pretty well known, the great Shire-horse-breeding firm of John Chambers & Sons, of Holdenby, Eng., have established Canadian headquarters at St. Thomas, Ont., under the management of Dr. C. K. Geary. The third importation to their St. Thomas stables arrived a few days ago. In opening permanent headquarters in Canada, for the introduction and sale of their Shire horses, the firm's intention was to send over nothing but a class of horses representative of the breed, as they are in everyday use in England, being convinced that comparison with other breeds of draft horses would stimulate an active demand for Shires in Canada. That they reckoned well is proven by the rapidity with which their former importations were picked up, and the entire satisfaction expressed by their purchasers. One purchaser of a stallion last spring told the writer that from 120 services in 1907, he had 91 colts born. This is only one of many such testimonials. At the present time in their St. Thomas, Ont., stables there are on hand 9 stallions and 4 fillies; but, of these, two stallions were sold the day of our visit: Ouse Bridge Champion, a bay, rising two, weighing 1,620 lbs., by Knowle Orion, dam by Bury Swell, going to Mr. Charles Gardhouse, of Highfield, Ont.; this colt is one of the very best in the country, combining, to a wonderful degree, size, smoothness, style and action, and standing on a faultless bottom. Waundon Duke, a brown, rising eight, by Duke of Worsley, in Lancashire Lad, by the great Lincolnshire Lad, dam by Better Times 4th, goes to J. D. Malott, Ruthven, Ont.; this horse has proven a sire of show stuff in England; he is a big, flashy horse, and fortunate is the district that is favored with his services. On hand for sale are the following: Kuroki 2nd, a chestnut, rising six, by Woodford Harold, by Harold, by Lincolnshire Lad, dam by that great sire of winners, Ridgeway Ranger. Here, without doubt, is one of the richest-bred Shires ever landed in Canada, as well as one of the best individuals. Put up strictly on show lines, he has style and quality galore, and the action of a Hackney. Anyone wanting a Shire stallion should look after this horse, as he is a winner sure. Byford Earle, brown, rising three, by Royal Regent 2nd, by Regent 2nd, by Harold; dam Byford Countess, by Sheriff; is bred on championship-winning lines, and there is no richer-bred Shire stallion living. Regent 2nd and Harold, both many times champions, appear in his lineage; and the dam, Byford Countess, has several championships to her credit; while, as an individual he is certainly a coming winner himself, with a beautiful, stylish top, flashy quality, and faultless bottom; he is a mighty desirable kind. Winston Tom, black, rising three, by Xerxes of Hothfield, by Rubicon of Hothfield; dam

(Continued on page 708.)



## Life, Literature and Education.

[Contributions on all subjects of popular interest are always welcome in this Department.]

### EASTER DAWN.

Awake, O earth! the rose of dawn  
Flames softly over Olivet,  
The night of pain and death has gone,  
The air is full of fragrance drawn  
From blossoms of the thorn, dew-wet.  
Awake, O earth! awake and greet  
The day and all it brings to thee—  
Love's crowning triumph, full, complete;  
Awake and sing with rapture sweet  
Thy song of Immortality!  
Awake, O earth! the rose of dawn  
Flames softly over Olivet.

—Jean Blewett, in the Canadian Magazine.

### THE DAUGHTER'S SHARE.

"The Farmer's Advocate" is proving itself the friend of every farmer and his daughter in raising the question of the daughter's portion.

It is a very old idea, belonging to the days of barbarism, that sets aside the daughter's claim, though there are some few who, even in these better days, believe that a daughter has a right to nothing more in her parents' estate than her board and keep. Simple justice laughs such an idea out of court. The daughter, in her way, works quite as hard in the financial interests of the homestead as does her frequently more-amply-rewarded brother. It is she who does her full share in making the farmer's house, not a shanty or a shack, but a home. Further, she renders valuable service in the garden, in the poultry-yard, and in the dairy. Added to these, she has the duties of sick nurse, to say nothing of her work as a maker and mender. It may be said that these are the duties of her womanly sphere. But are not the duties of the son simply those of his manly sphere? For that reason, he has no better claim upon the family purse than his equally-deserving sister.

Common chivalry demands that the daughter should have the better chance. Physical limitations and custom close many a door that stands wide open to her brother. Nature and social life have placed a handicap upon her, and a sense of fairness demands that she should not only be equally well provided for with her brother, but that, if any advantage is to be given, it should be conferred upon her.

Further, a girl's preparation for facing the problem of earning her living should be carefully attended to. It is a disputed question as to whether parents should leave their children any considerable portion of money, or its equivalent. There can be no question as to the necessity of parents doing all they can to equip their children for a successful part in the inevitable struggle for existence. Particularly is this the case regarding the daughters in the family. There is no more pitiable spectacle than that of the middle-

aged woman without means, and yet unfit to do anything whereby she can keep poverty at arm's length. Parents responsible for such a condition of affairs have a deal to answer for.

On no account should a daughter be allowed to feel that her parents regard her very much as a chattel, to be passed on, when she has served their turn, to someone else. Even clerks in our better class of stores are treated better than that. Business firms everywhere find that it pays, in financial returns, to consider the welfare of their employees. Every dollar wisely invested for this purpose gives astonishing returns in enthusiastic service and increased sales or product. Many parents are quite unaware of the returns awaiting them by bestowing a little more attention upon their growing girls.

In the last place, many a father will do well, when apportioning his estate, to ponder the following lines, and to act in view of their teaching:

"A son's a companion till he gets him a wife,  
But a daughter, you'll find, is a helper for life."  
Wentworth Co., Ont. J. M.

the plane of the mere fairy tale. We have, indeed, never read anything better in patriotic Canadian literature, and we venture to suggest that the reading of "The Storm King" might well be made a part of the next Empire-Day programme in the schools of Canada.

Among others who submitted good work, we may mention H. Toley, Wellington Co., Ont.; Sonora, Bruce Co., Ont.; Milla, Rouville, Quebec; M. C. Dawson; Apto, Halton Co., Ont.; M. C., Carleton Co., Ont.; and M. H. Veale, Oxford Co., Ont.

### The Storm King: A Story for Children.

Far, far away in the North, on a great white mountain of snow which the eyes of Man may never behold sits old King Storm. On a throne of strangely-carved ice is he seated, the back of which, rising high into the blue sky, glitters and sparkles—now crimson, now blue, now green, now like the rainbow—until the aged Sun, shamed by a brilliance he cannot equal, hides his head for long

North and sends them far southward, like hungry wolves, to raven the Earth.

When, in the long night, the wail of the lynx is lost in the roar of the blast; when the swaying trees in the lane sigh and moan; when within is light and cheer, and the merry faces of children, and without nought but the scream of the wind, the hissing snow and the loneliness, then you hear the cry of the Storm King. Draw near, therefore, O Children, and list to a tale of the Northland—a tale of the Old King who sits on the Lone Mountain forever, waiting for the world to freeze.

One day great excitement prevailed among the warriors of His Majesty, for had not the retreating sun, ere finally departing, signalled all along the flaming horizon that the Earth was awaiting the onslaught? The small Snowflakes, whimpering excitedly, hurried hither and thither. Old Frost, whom Man fears, noisily crackled with laughter, while the stout North Wind whistled aloof his wild battle song. Suddenly the King arose, and, summoning his forces, assembled them there before his stern eye; and truly they presented an awesome sight. First stood the Snowflakes, rank on rank, myriad on myriad, farther than the eye or imagination might extend, and next came strong Frost and the fierce Wind. Old Storm, perceiving all was ready, threw out his hands with the shout, "The time has come, away, smite the Earth!" and the Snow flew, and the Frost soared, and the Wind blew, and all of that great host rushed out over the world.

Far-flung on either hand, the squadrons rushed quickly onwards. On and on they flew, over mountain and sea of ice; over plain and precipice, river and lake, until a great forest, black and forboding, loomed grimly on their van, which for years had been their battle-ground, and in front of which stood the champion, the White Oak. For a moment all seemed hushed and still—then came the shock. And the Snow crushed upon that Oak, and the Frost bit him to the heart, and the lusty Old Wind smote him with his power. But the victor of an hundred battles bowed himself in his might, and his feet gripped the rock, and his gnarled arms grappled the foe, and though he quivered and groaned with the struggle, he moved never an inch.

"Ho! Ho!" roared the North Wind, "Long years have we fought with thee, O Tree, and thou, with the courage of the North in thy heart hast prevailed; yet, know this, in the end we conquer," and the host swept on—on over and around the homes of Men. And Man, like the Oak, groaned and vanquished, for this is the law of Old Storm, that, though he assail his servants in fury, yet to them he gives the courage of three, and a strength which the South knows not.

Still the tempest sped forward, over little streams and broad rivers; over high mountains and great prairies; over the proud cities of humanity, and where human foot had never trod, until the white-haired sentinels hove in view, which, placed along the great water by God in the beginning to guard the land forever, are standing there as stand the sol-



Spirea Van Houttei.

One of the most attractive shrubs for the lawn. Flowers in June.

### OUR LITERARY SOCIETY.

#### SHORT-STORY COMPETITION.

It was with some misgiving that we announced a short-story competition for our closing Literary Society tourney, but we shall never be afraid again. Although fewer entered the lists, the quality of the work submitted was, on the whole, better than we had expected, while that of the best story, which appears in to-day's issue, was a decided surprise. Mr. Miller has, in short, given evidence of unusual talent in his tale of "The Storm King."

Poetical both in conception and expression, this story is well worthy of ranking with some of Hans Andersen's best, while the meaning underlying the whole raises it far beyond

months beyond the southern hills. Then it is that silver censers filled with luminous light, swung to and fro around that mountain by unseen hands, fill the air with the soft, rosy illumination that glows so rudely on the northern sky. The king's robes are made of finely-woven ice, embroidered with delicate snowflakes and gleaming frost-spangles; and his crown, likewise composed of ice, gleams in the sunshine and red light like a circle of living gems, beneath which his long white hair, sweeping downward, partly falling over his shoulders, mingles with his hoary beard—for he is old, old as Time, and wise. Much of the time he slumbers peacefully beneath the lone North Star, but at stated periods, which Men call Winter, he, awakening, gathers the legions of the

APRIL 16, 1908

dieters of the Great King, with the cold and the fury beating around their bases, but with their heads far above in the blue sky. Here the little Snowflakes, quite tired with so long a journey, joined their small companions above the clouds, which, sitting aloof in eternal brilliance, await the death of the Sun. Here, too, Old Frost, after much wandering, became lost in the passes, and, soaring high in the air, returned to his master, so that of all that host only the North Wind crossed the Mountains. He, however, still undaunted, flew to the ocean, and over the ocean to other lands.

The Deep Waters, whipped to fury, pitched and roared, and thundered huge waves against the cliffs. The frail ships built by puny Man were thrown on high or swept beneath on rocks, and over all the deep was confusion, spread by the touch of the White King. And in those other lands brilliant birds crept fearfully under shivering leaves, while gaudy butterflies bowed to the earth, and gay butterflies floating over rose-decked lawns fell among the grasses. A Southern Mother, standing in the glory of the dying sun, turned at the touch, and as she gazed the light of fear shone in her eyes. Well she knew that from whence came the North Wind there lives a blue-eyed Race, terrible and tameless as Old Storm its father, which, under the flag bearing the three crosses and a newer flag, has shaken the world. And she clasped her dark-haired babe closer to her bosom, and prayed her god that never might he feel their power, for their banners go never backward, and their ships encompass the earth.

Far away in the Northland sits the King as before, and lo! all is still. The wee stars, the children of God, twinkle merrily in the frosty light, while the pale moon, guided by the angels, rolls on her way. The frost-spangled trees, standing white and spectral in the magical scene, throw strange, checkered shadows for the fairies to dance upon, and here and there from the villages of the mountain and plain thin spirals of blue smoke twist upwards into the clear heavens. He looks around well pleased, for, from the High Hills to the Bay, and from the Islands to the Great Lakes, and beyond the lakes, a white blanket envelops the Earth where his armies have trod. And as he looks over the "Great Lone Land," so grand in its resources, so pitiful in its undeveloped greatness, his heart glows within him, and he softly murmurs, "Ah, my children of the North! My little ones of Canada, I send my legions down upon you, but to give you strength, for I love you. So will I make of you a nation so great that wise Time, though older than the world, shall wonder. Behold, the time approaches! Arise, make our Mistress of the North the Empress of the earth."

Thus spoke the Old King, and, O Children, the words are for you alone. Listen! Hear the promise in the song of the North Wind.

JUSTUS MILLER, Jr.  
Oxford Co., Ont.

Our only question in regard to the above concerns the use of the word "servants," in "though he assail his servants in fury," etc. It might be objected that the Snowflakes, North Wind, etc., were the servants of the Storm King, and not man, as here implied.

A FEW WORDS FROM THE MEMBERS.

Writing us just a year ago, the writer of "The Storm King" said: "The Literary Society is possibly the most useful portion of 'The Farmer's Advocate.'" Anyone attending the cheese meetings, etc., cannot fail to notice the inability of the ordinary farmer to express his ideas clearly and concisely. In helping the farmers along this line, the Club should and no doubt will exert a great influence. Also, it cannot fail to create in the members a true

appreciation and a desire to study first-class literature, rather than the inferior material that is so largely read at the present time. This will probably be the greatest benefit of all."

To-day, "Milla," Quebec, says: "I have enjoyed the Literary Society very much this winter. I much appreciate your efforts in this work, and I hope and believe that many a writer in the future will look back to this Society as their starting-point."

We should be rewarded indeed should these prognostications prove true. To help our farmers to express themselves, to inculcate a more general love of good literature, to inspire, here or there, the literary genius—this would truly be a crown worthy of all effort.

PHYSICAL EDUCATION AND INVALIDISM.

Some time ago, when the question of a definition of education as the all-round development of the man physically, morally, intellectually, was under discussion, we received the following letter:

Editor, Literary Society:

I notice, in a recent issue of "The Farmer's Advocate," that you wish me to modify my assertion, that a good physical development is not necessary to the well-educated man. While not wishing to depreciate the value of good physical development, I do not think that a man who is physically weak need despair of becoming well educated. True, he cannot accomplish so much work, or acquire so much wealth, or win so much fame, as he might were he possessed of a more robust constitution, but if he does all he can, and uses what strength he has to the best advantage, he shall at least, "Bear, without abuse, the grand old name of Gentleman."

RALPH ERSKINE.

Queen's Co., P. E. I.

Owing to pressure of other things, this letter has been crowded out overlong, but the subject of which it treats is at all times opportune.

Mr. Erskine's misunderstanding has no doubt arisen from the fact that he has clung to the popular idea of education as a merely mental factor, whereas we had dwelt upon it in its

pedagogical sense of an all-round development, physically, mentally, and morally. For instance, in starting to educate a child, we must not aim solely at developing his brain-power, caring little whether his morals or his body be dwarfed or not. We must aim at developing the whole child; at giving him a sound mind in a sound body which will be a pleasure to him; at inculcating in him principles of right and honor; at stimulating in him the habit of independent thought; at awakening in him a love of knowledge and of the beautiful, and fixing in him a conviction that all that he learns and all that he is should be expressed in useful work. In these terms is education, in its broadest significance, contained.

Upon the other hand, we have no wish to quarrel with the common use of the term as referring to merely mental accomplishment. We must call Bacon an educated man, notwithstanding the fact that he was both physically infirm, and possessed of so little honor as to betray a friend; we are willing to call George Eliot an educated woman, even while recognizing that her morals, in some respects, might have been improved. Indeed, were physical infirmity alone to be considered, it would almost appear, judging from the long list of illustrious invalids, that ill-health might be a concomitant to brilliant mental work, as indeed it may in some cases be, since physical inability so often cuts its subjects off from the active life, throwing them back upon mental labor as a resource for passing otherwise weary days. Invalidism also often begets a certain strength of character, a sweetness of disposition, which may have had no little to do with the worth of thought recorded by illustrious invalids. Among the latter, it may be interesting to note, have been Aristotle, Alfred the Great, Bunyan, Pope, Schiller, Heine, Pascal, Mrs. Browning, Wilberforce, Voltaire, Kant, Kepler the astronomer, Green and Parkman the historians, Lever, Gray, and R. L. Stevenson, that most glorious invalid, who, at the time of his greatest extremity, could write, "I am too blind to read, hence no reading; I am too weak to walk, hence no walking; I am forbidden to talk, hence no talking; but the great simplification has yet

to be named, for, if this goes on I shall soon have nothing to eat—and hence—oh, hallelujah! hence, no eating."

At the same time, we believe that it is not wise to be an invalid if one can help it; and that, recognizing that his body needs educating as well as his mind, every invalid should strive his utmost to attain a fair degree of health and bodily development. We believe, also, that will-power and perseverance in a sane method of living can do more towards inducing good health than can readily be believed; and we are inclined to think that many ailments, especially among the student classes, have been simply invited by indiscretion of some sort, by overstudy, lack of exercise and fresh air, in some cases by overexertion, and so on through a long list of avoidables.

It is only too easy, perhaps, for the ordinary invalid to grow weary and dependent; to give up the little walks or outings really so necessary to him; to keep thinking about himself and his infirmities; to let all interest in doing things drift. And yet, if he only knew it, the very exercise of his will-power in compelling himself (if necessary, under his physician's direction) to do those things which are absolutely needful for well, not to speak of sick, folk, and to live outside of himself as much as possible, is likely to be the very foundation stone of his improvement.

This last point is very important. The most eminent physicians everywhere now admit the strange influence of the mind over the body. They are indeed convinced that if the mind is morbid, continually bent on the infirmities of the body, the effect is almost as of a poison throughout the system, and they have even succeeded in demonstrating that people who have imagined disease in any part of the body, and have dwelt fretfully and constantly on the apprehension, have brought on the very thing they feared. As a consequence of this understanding, the necessity of "taking up the mind" of the invalid, of getting him out of himself, interested in something that may make him forget his malady, is now universally urged.

We believe, in short, that physical education is a duty which everyone owes to himself and to the world;



An Object Lesson on Good Taste in Lawns.

(From Country Life in America.)

[Note the broad central space, with irregularly-massed borders of trees, shrubs, and plants.]

that the weak or sickly should undertake such a course as may tend to strengthen him—take exercise, live in pure air, eat simple, nourishing food; work at something interesting, such as drawing; gardening, etc., and have such stimulus as may come from frequent meeting with friends outside of the home. We believe, also, that the poorly-developed body may be greatly improved by a systematic course of deep breathing and other exercises, kept up, not for days or weeks, but for months and years, if necessary.

All this reads like a creed. For the nonce, let it be our creed. Physical education may be the lowest form of education, but let it be carried on in conjunction with the development of the higher powers, and the story changes. Interdependent as mind and body are, who may reckon the effect which the vigorous body, under control of a firm and persistent will, may have on the whole life and its accomplishments. All cannot, perhaps, be physically strong. Yet, the weakest may, at least, make the attempt, and who dare place a limit as to what he may accomplish?

THE EASTER MESSAGE.

(Written for "The Farmer's Advocate" by Nelson Moses.)

Awake, awake, ye sons of earth rejoice,  
Arise ye and greet Him, the King of all kings;  
Your Alleluias swell with heart and voice,  
O sing the glad tidings that He brings.

It was for us He entered earth's dark tomb,  
In its deep shadow for three days He lay,  
Then He burst death's strong gate and all its gloom,  
Through the dark valley He now lights our way.

Swing open ye gates of Heaven above,  
And let Him, the great Conqueror, ride through;  
O ye angels of light, who know what is love,  
Bring forth your diadems and crown Him too.

What thund'ring strains come rolling on and on?  
And what heralds are these that sing so sweet?  
They sing of Him, who hath our battle won,  
Arise ye captives and your Captain meet.

Moon of moons, we bend in adoration,  
And we watch for Thy coming to appear;  
Stir in our hearts, an Easter Devotion,  
O help us to walk in Thy Holy fear.

All our failures and all our sadness done,  
He lifts us up from the region of death;  
He dispels our darkness, the night is gone,  
Wings of the morning, we hail thy new birth.

The Quiet Hour.

DEATH IS THE DOOR LEADING INTO LIFE.

And all wept, and bewailed her; but He said, Weep not; she is not dead but sleepeth.—St. Luke viii.: 52.

"It seemeth such a little way to me Across to that strange country, the beyond;

And yet not strange—for it has grown to be The home of those of whom I am so fond; They make it seem familiar and most dear,

As journeying friends bring distant countries near.

So close it lies that when my sight is clear

I think I see the gleaming strand; I know I feel that those who've gone from here

Come near enough to touch my hand. I often think, but for our veil-ed eyes, We'd find that heaven right round about us lies,

I cannot make it seem a day to dread When from this dear earth I shall journey out

To that still dearer country of the dead,

And join the lost ones so long dreamed about.

I love this world; yet I shall love to go

And meet the friends who wait for me, I know.

I never stand beside a bier and see The seal of death set on some well-loved face,

But that I think, 'One more to welcome me

When I shall cross the intervening space Between this land and that one over there.

One more to make the land beyond more fair.'

And so to me there is no sting in death,

And so the grave has lost its victory; It is but crossing, with abated breath, And white, set face, a little strip of sea,

To find the loved ones waiting on the shore.

More beautiful, more precious than before."

Easter following close on Good Friday should bring thoughts of solemn joy to those who have known what it is to watch by the death-bed of one who is very dearly loved. How quickly the sorrow of the true-hearted disciples who watched their Master's dying agony was turned to joy on that first great Easter day. "Why seek ye the living among the dead?" might well be said to many a mourner to-day. He whom you love is not lying in the dark ground; he knows far better than you do what the joy of life means. Can't you be "a little glad for him?" Do you remember how David fasted and wept for his dying child, but as soon as he knew that the dreaded blow had fallen he went to the house of the Lord and worshipped, and then returned to his own house and began the regular course of life again. "I shall go to him," he says, as though that thought made him cheerful and contented. When the Good Shepherd takes home one of His lambs, He is not care-

less of the sad hearts left behind, although perhaps they may feel almost ready to accuse Him of unkindness. Think how the shortest text in the Bible reveals the wonderful tenderness of Christ. We almost wonder when we read that "Jesus wept" with Martha and Mary, although He intended to turn their sorrow into joy in a few minutes. If He felt so sorry for them then, think how hard it must have been to hurt them as He had done before. When those dear friends sent their trustful message, "Lord, behold, he whom Thou lovest is sick," they did not even think it necessary to ask Him to come and heal their brother. Of course, He would do that, they must have thought; and yet He purposely delayed until Lazarus was not only dead, but buried. Surely He cared for their wondering grief as they asked each other why He had allowed the brother to die when He could easily have healed him. That shortest, most comforting text would never have been in our Bibles if He had not cared. God does not remorselessly carry out His plans without considering our feelings, but when He sees that pain or sorrow is what we need, He is not weak enough to draw back because we cry out in pain. If a little child you loved came running to you for help and comfort because he had been bitten by a mad dog, he would think you cruel and unkind if, instead of lessening his pain, you increased it by burning the wound with a hot iron. He might be too young to understand that you had to do this just because you loved him, but if he trusted you as we ought to trust our heavenly Father, he would feel sure that there was good reason for your apparently needless cruelty. If God asks us to trust Him in the dark now, He will explain afterwards, and we shall own that He was kind and good to us always. What confidence should we have in a surgeon who was too tender-hearted to set a broken limb or cut out a cancerous growth, just because it hurt the patient? We can all see that other men and women have gained great things by their sorrows. Worldliness and selfishness are often burned out by God's fires, and the soul gains new strength and beauty which nothing but suffering can give. Are we not ready enough to sing, "Nearer my God to Thee?" Surely, sometimes at least, we really mean the prayer that He will lift us nearer to Himself, even though it be a cross—and a real cross is always painful—that raiseth us. If we don't care enough about holiness to be willing to endure whatever training God sees to be necessary, then let us not dare to mock Him by asking for a gift we don't really want. Our Lord knows well that one of the best ways of drawing men and women after Him is to take the children they love into His arms and bless them. As Ian Maclaren says: "A young child with Christ does more to illuminate the other world than all the books that ever have been written, and it has often come to pass that at the touch of this unseen hand hard and sceptical men have arisen and set their faces towards God, for the hope of seeing again a golden head on which the sun was ever shining." H. W. Beecher says: "When engineers would bridge a stream, they often carry over at first but a single cord. With that, next they stretch a wire across. Then strand is added to strand, until a foundation is laid for planks; and now the bold engineer finds safe footway, and walks

from side to side. So God takes from us some golden-threaded pleasure, and stretches it hence into Heaven. Then He takes a child, and then a friend. Thus He bridges death, and teaches the thoughts of the most timid to find their way hither and thither between the shores."

The longest lives have not always the most influence. A man's faith in the life after death may be very weak; he may scarcely even take the trouble to doubt or believe the doctrine of the immortality of the soul, but when God takes away his nearest and dearest, his very misery makes him look for some light in the darkness—and they that seek shall find.

But at this glad Easter-time we should not only think of those earthly friends whom we hope to meet again some day. "I shall go to Him!" must be the inspiring thought of all who love the Great Master who has, like our other friends, passed through death into life. A poor girl, dying of consumption, once said, "I am so glad I did not have to die when Jesus was living in this world, for then I should not have gone to Him." That seems rather like the childish idea of the little girl who would not say her prayers at the same time as her sister, because she wanted God to pay particular attention to her prayer. It is impossible for us to understand how God can be everything to so many souls at once, but I feel quite sure that many who read this Quiet Hour will understand the dying girl's wish to go straight to Him. Those who do not understand may consider such talk nothing but cant and hypocrisy; the thought that they too must die brings no joy with it, and, therefore, they don't believe that anyone else can look forward to it with anything but fear. But others who do long to "see the King in His beauty," although they may look forward to death with a natural human dread, yet can joyfully look to the risen life beyond death, and echo Miss Havergal's beautiful words:

"A thrill of solemn gladness  
Has hushed my very heart  
To think that I shall really  
Behold Thee as Thou art;  
Behold Thee in Thy beauty,  
Behold Thee face to face,  
Behold Thee in Thy glory,  
And reap Thy smile of grace."

HOPE.

With the Flowers.

NOTES.

An expert says that dahlias should never be planted in very rich soil, as it has a tendency to make a soft rank growth. No fertilizer should be given until the plants begin to bloom; after that, now and again, a top-dressing should be applied, and well worked into the soil. Dahlias do not need a great deal of water, none unless the soil has become quite dry, as in time of drouth, when a thorough watering, enough to penetrate right down to the roots, should be given once a week.

Many people nowadays find much pleasure in having a wild-flower border in their gardens. It is well, of course, to provide the plants with their natural soil conditions as far as possible; nevertheless, many species will do quite well in any ordinary location, which is provided with mellow, rather moist earth. Among those that can be recommended are, for the background, such tall plants as cone-flowers, the pinkish Joe Pye weed of the swamps, honset, clumps of goldenrod, tall meadow rue, tansy, narrow, wild asters, and Oswego tea, commonly called bergamot. Lower-growing plants for the front of the border are dicentra (Dutchman's breeches), hepatica, bloodroot, low-growing ferns, yellow, white and mauve violets, Canadian aquilegia often called "wild columbine," trilliums, cardinal flower, turtle head, anemone and buttercups (not the yellow marshmallow, which requires boggy ground), dog's-tooth violet or "adder tongue," and various kinds of low-growing ferns. For ground cover between the plants, try low-growing violets, pigeon berry and wild geranium or herb Robert. If you have a grove of



A Wildwood Border.

trees near your house, keep the sheep and cattle out, and transplant all sorts of wild flowers to it. You will soon have a garden which will please you more than the most showy plot of exotics ever could.

Do not be in too great a hurry to set out annuals which have been started in boxes. Corn-planting time is usually early enough in Canada, as then danger of frost is usually past. In the meantime, as soon as young plants begin to crowd, transplant them to other boxes. A final transplanting may be made into little cotton bags filled with earth, which may be set out in the garden without disturbing the plants in the least; simply slit the cotton and place the balls of earth in holes prepared for them.

Mr. C. J. Fox, a well-known floral expert of this city, tells us that he always sows his mignonette, which is the admiration of all his friends, in April.

Rhubarb is said to be hastened to a quick, crisp growth by placing a bottomless keg or barrel over each plant. Try it.

### Current Events.

Measures are to be undertaken in India to dissuade Hindus from emigrating to Canada.

It is proposed to send the correct time by wireless telegraphy from the Eiffel tower to all ships at sea.

Severe rioting took place in Lisbon after the voting in the election recently, and several people were killed.

Owing to a failure of the crops in India, due to dry weather, millions of the people are on the verge of starvation.

The naval appropriation bill for the United States provides for the expenditure of \$103,967,518 on the navy for the fiscal year ending June 30th, 1909.

The boycott against the Japanese, arising out of the trouble between Japan and China over the seizure of the Tatsu Maru, is spreading rapidly throughout the Chinese coast provinces.

An important clause in the Anglo-American treaty which is awaiting ratification, provides that the British Government may defer the conclusion of an agreement on any subject in which Canada has been concerned until the Dominion Government has been consulted.

In an audience, at Biarritz, on April 8th, King Edward asked Mr. Herbert H. Asquith to form a new Ministry. Mr. Asquith is, accordingly, now Prime Minister of Great Britain. He will also serve as First Lord of the Treasury in the new Government, while the Right Hon. David Lloyd-George will fill the position vacated by him as Chancellor of the Exchequer.

### APRIL.

The gray hawk wheels in sunny sheen;  
The new sap throbs through trunk and bough;  
Earth wears a diadem of green  
Upon her brow.

The quick blood fills each swelling vein,  
Yearning to rush with wind and brook;  
It knows the sign of pool-starred plain  
And building rook.

What of the past?—its woes are naught;  
The future days?—dear filmy dreams.  
The sunlight's mesh of yellow caught  
By running streams.

—S. A. White, in the Canadian Magazine.

### About the House.

#### NEW RUGS FROM OLD—STENCIL-LING.

A writer in Country Life in America says that very handsome, "new" rugs may be made from old ingrain carpet. Rip the carpet, wash it, and, if necessary dye it. Cut it into strips three

inches wide, fringing each side slightly; sew as you would carpet rags; wind into balls, and send to the carpet weaver. The same authority is responsible for the statement that old body Brussels carpet, which is no longer presentable, may be given a new lease of life. Proceed as follows: Sew the carpet into the shape required for your rug, then tack it, right side up, on the attic floor. Give this side a coating or "sizing" of a strong glue solution, put on with a whitewash brush, and dry thoroughly. Next, turn

the carpet so as to place the wrong side—which is to be the right side of your rug—upward, and tack down again. Get some dye of the color you want, mix it much thicker than for ordinary use, and apply to the surface evenly. Let dry, then give another coat, and still a third, if necessary. Last of all, stencil a simple border in a darker shade all around the edge.

Speaking of stencilling, one of "The Farmer's Advocate" girls brought to the

repeat directions: Simply draw out your pattern on stiff paper, then cut it out, leaving a series of holes through which you are to paint your design. Take great care that the connecting parts of your pattern are strong, so that they may not break. Next, varnish the paper, or "stencil," as it is now called, on both sides with shellac; let it dry, and you are ready for work. Place your material on a table over a thick sheet of blotting paper; put your stencil in position, and paint the color on the exposed portion of the material with a paint-brush. When you have finished, lift the stencil and place it again in position wherever you wish the pattern to appear, repeating as often as necessary. The stencil may be made of tin, if preferred, but the tin is, of course, much harder to cut out.

Stencils may be used for wall borders, cushions, colored tablecloths, window curtains; in fact, for almost anything you choose, and the beauty of the work is that, provided you have enough originality, you may design patterns different from any others on the earth. For this reason stencilling cannot readily become tiresome. Conventionalized designs are, of course, the easiest, since shading becomes necessary as soon as natural effects are aimed at. Almost any large-petaled flower, or such composites as the daisy, may be conventionalized; tulips, poppies, wild roses, thistles, daffodils, marsh-mallows, cone-flowers, etc.—and almost any kind of leaves. Scrolls and geometrical designs formed of triangles, etc., may also be very effective, if carefully done.

If you have never done any stencilling, try a bit on scrim, cheesecloth or denim, and see how you will like it.

#### EGG RECEIPTS.

**Baked Eggs and Bacon.**—Cut slices of sweet, well-cured bacon very thin, allowing two slices for each egg. Fry the meat until crisp, and arrange in groups of two on a large, flat plate. Break one egg over each group; set in a hot oven, and bake.

**Devilled Eggs.**—Take six eggs, one heaping tablespoon cold boiled ham (minced), half a tablespoon olive oil or melted butter, half a teaspoon mustard, salt and pepper to taste. Boil the eggs fifteen minutes, and lay in cold water for half an hour. Remove shells, and cut the eggs in two lengthwise. Take out the yolks, and rub to a smooth paste with the oil and mustard, and add the ham and the salt and pepper. Mix well, and fill the whites with the mixture. Serve on a bed of watercress.

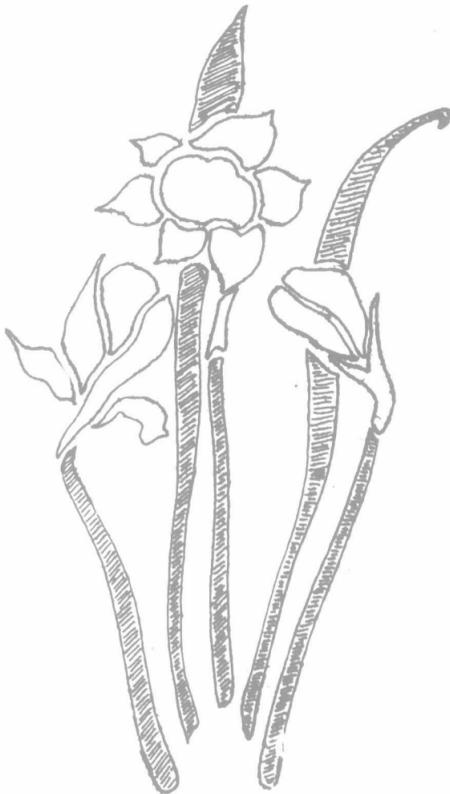
**Egg Chowder.**—Fry quite brown four slices of bacon. Slice about six potatoes, and lay over the pork; cover with water, and boil till tender. Next add three pints milk, a piece of butter, salt and pepper, and bring the milk to a scald. Now drop in very carefully so as not to break them, six eggs (yolks alone, if you choose, leaving the white for something else), and cook till done.

**Egg Fricassee.**—Boil three eggs until hard, and cut into slices. Put into one cupful of gravy or stock some minced parsley, a little chopped, cooked onion, a bit of butter, and a little flour. Simmer the mixture until thick, then add the sliced egg, one or two tablespoons of cream, and salt and pepper to taste. Mix well, and serve very hot.

**Eggs and Cheese.**—Cover the bottom of a flat, buttered dish with grated cheese, and let the cheese soften in the oven. Break three or four eggs over it, and return to the oven until the whites are set. Put on more grated cheese, then a sprinkling of pepper, then one of bread crumbs. Brown, and serve very hot.

**A Nourishing Lenten Dish.**—Boil as many eggs as you require hard, peel them, and cut in slices. Make a sauce of a tablespoon of butter, the yolks of 4 eggs, a little grated cheese, and half a cupful sweet milk. Stir over the fire till it thickens; pour over the eggs; strew with bread crumbs, and bake ten minutes. Serve hot.

**Steamed Eggs.**—Butter as many tea-cups as you need, and sprinkle in them chopped parsley, a grating of lemon peel, and a dash of onion and pepper and salt, all mixed together. Break a fresh egg into each cup, and steam till set. Serve on hot, buttered toast.



Design for Stencilling.  
Conventionalized from daffodils.



Design for Stencilling.  
Conventionalized from marsh-marigold.

## WILL NOT INJURE

### THE MOST DELICATE FABRICS

You can wash the finest laces, lingerie and handkerchiefs without breaking or injuring a single thread if you use a

### "1900 GRAVITY" WASHER

because this machine works on the opposite principle of the washboard. The clothes remain *stationary* while the water is *swirled* and *pressed* through them by the swirling and up-and-down motion of the tub.

Absolutely no rubbing, pulling, wearing or tearing; everything done simply by *agitation* of the water.

You can't afford to be without the "1900 Gravity" Washer; it will clean clothes quicker and more easily than any other machine, and make them last twice as long.

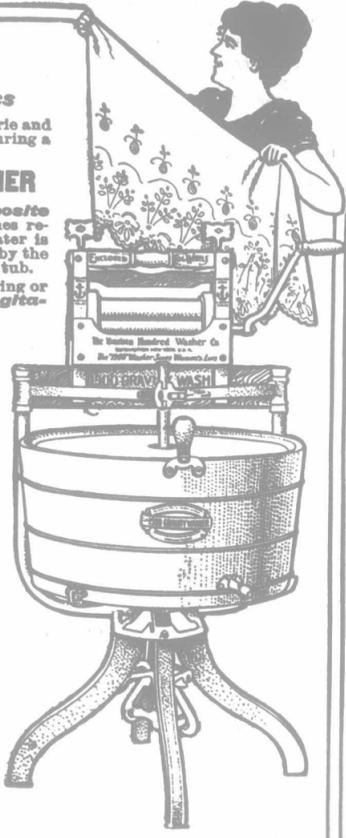
### OUR FREE TRIAL OFFER DON'T MISS IT

We are the only people on this continent that make nothing but washing machines, and that are willing to send a Washer on

**ONE MONTH'S TRIAL FREE** to any responsible party—without any advance payment or deposit whatsoever. We ship it free anywhere and pay all the freight ourselves. You wash with it for a month as if you owned it. Then if it doesn't do all we claim for it, ship it back to us at our expense. Could any offer be fairer?

Write to-day for our handsome booklet with half-tone illustrations showing the methods of washing in different countries of the world and our own machine in natural colors—sent free on request.

LOOK FOR THE LABEL ON THE TUB.  
None genuine without it.



Address me personally, F. A. F. Bach, Manager  
The 1900 Washer Co., 355 Yonge St., Toronto, Can.

The above free offer is not good in Toronto and suburbs—special arrangements are made for this district.

## The Ingle Nook.



A "Den."

### FURNISHING A DEN.

Dear Dame Durden,—I'm coming in for just a peep at your cozy nook. I'll promise not to stay long, but just let me tell you I've enjoyed the Ingle Nook immensely.

Now, could you give a few novel ideas about furnishing a den? The room I intend using is facing the south and east, is already papered in light blue paper, and has a fawn carpet. Also, do you know of any little inexpensive way of decorating a dining-room? What I mean is do you know of any way to arrange fancy china or plates in little racks that would look nice?

Don't you think "Carmichael" is a nice story, Dame Durden? I thought it would turn out that Dick and Peggie would be married in the end.

As everybody is sending recipes, here is an excellent one for biscuits: Take the sifter nearly full of flour, add three teaspoons of baking powder, a pinch of salt, and sift. Mix soft with 1 cup of good sour cream and one and one-quarter cups of buttermilk, in which one teaspoon of soda was dissolved. Bake rather quickly for 15 minutes generally. They are splendid, and so easily made. Hoping this evades the W.-P. B. JEAN.  
Elgin Co., Ont.

Warm colors, such as red, olive, etc., are usually chosen for dens; however, since your room is a southern one, I should say the blue paper might do very nicely. If you wished to have some little change in it, without going to much expense, you might put on a drop ceiling of very light fawn ingrain paper, which you can get for fifteen cents a roll. Let the drop come down about two feet on the wall, and finish it off where it joins the blue paper with a narrow wooden moulding, either painted ivory color or stained brown. . . . And, now, your fawn carpet, and fawn and blue paper will give you a key as to furnishing the rest of the room.

As a den must be, before all things, cozy and usable-looking, you must have a couch, books, plenty of cushions, a table with a big lamp on it, and a few easy chairs. For the couch, buy a strong cot, with a mattress on it; then make a fitted cover of fawn or old blue denim. This may be easily done by cutting a piece to fit the top, and pleating about it a valance, which will hang down to the floor all the way around. Of course, if you could have a homespun woollen "throw" instead of this, all the better. Now pile your couch with cushions, not cushions of all sorts and colors, but quiet, downy-looking things, in colors that harmonize—chiefly in fawn and old blue; there are denims and shirts that will do admirably for slips. Don't sew them to the cushions; make them separate, and simply button them on under the frill so that they may be easily removed when in need of laundering.

Have bookshelves or a little stationary bookcase made for your den, and stained brown. Smuggle in a five-ounce tea set and a copper kettle with an alcohol lamp for heating it, if you are so fortunate as to be able to get them, but, of course, you must have a little table especially for these; you would never want cups and saucers on your larger table, on which your big lamp stands, and which you will use so often for your "pick-up" books and magazines.

For ornaments in this room, I should say have nothing but a few water-color paintings, or sepia-prints, framed in brown wood, for the wall—gilt-framed oil

paintings would be too harsh for the pale-blue paper; some flowers in the window, and some bronze or pottery jars, etc., for the top of the bookcase or for the mantel, if you have one. Brass candlesticks, too, would be a welcome addition. If you felt like introducing a touch of brighter color to give character to the room, you might have a pumpkin-yellow cushion on the couch, and a shade of the same color for the lamp.

And now for your window curtains,—why not make them of scrim with a stencilled border of conventionalized daffodils or tulips, yellow, with green leaves? If you preferred blue, you might have a bluebell design, with blue flowers and green leaves. Have the curtains, of course, just of sash length, not to the floor. You will find directions for stencilling, by the way, in another portion of to-day's issue of "The Farmer's Advocate."

We do not know of any way of decorating a dining-room, except by painting or staining the floor, papering the walls prettily with plain paper above the plate-rail or moulding and figured below, and putting pretty curtains, dyed or stencilled, to match the wall paper, at the windows. Some put plain paper below the plate-rail and figured above, but the other way is rather better, as the plates, etc., look so much better against a plain background.

We presume the plate-rail is what you mean by the "little rack." It is simply a sort of wide-topped moulding (some use a narrow shelf with a flat board-finish beneath), which runs quite around the room, or across part of it, as preferred, at a distance of about 6 feet from the floor. The top is grooved, so that fancy plates, plaques, etc., may not slip off. Of course, you understand that the rail must not be crowded with things; it is not intended to be a cupboard, but merely a place for putting odd decorative bits; a few plates, hand-painted or old willow-pattern, etc., an odd jug or piece of pottery, or a handsome plaque, or shield, will be found quite enough to give a good effect. Plate-rails may not be of much practical use, but their decorative value is unquestioned. . . . They may be bought, by the way, at any good wall-papering establishment, and cost, for the cheapest kind, unstained, about 7 cents a foot. Any handy man should, however, be able to make one at even less expense than this.

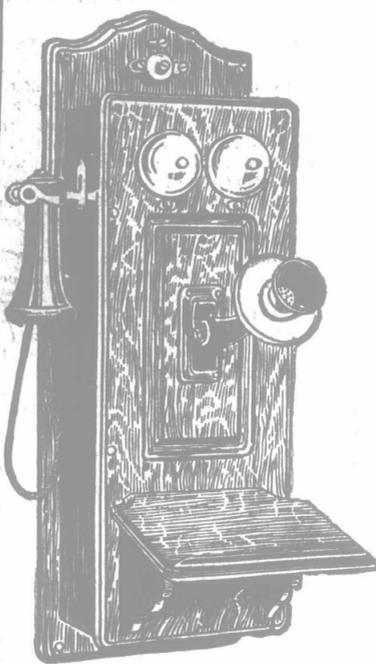
### AN ATTRACTIVE WALL FINISH.

After writing the above, it suddenly dawned upon me that I had forgotten to mention a wall-finish, which, when it is necessary to be careful of the dimes, gives a very good appearance at comparatively little expense. I refer to Alabastine, a sort of "water-paint," which is much prettier than ordinary oil paint, because it lacks the glaze. A wall may be completely finished in Alabastine in two tones, say golden brown for the lower two-thirds, a harmonizing tan above, and a wooden moulding or plate-rail between; or the Alabastine may be used for the lower part only, the portion above the moulding being papered with a pretty flowered or figured paper. In a dining-room, the paper might be used below the plate-rail, the ceiling and portion above the rail being Alabastined. Alabastine comes in all tints and colors, but in buying it be sure to insist on soft, not bright or crude tints. Ask to see the samples of colors, and if the very tint you want is not in stock, ask your hardware man to send away for it. Do not take "anything" simply because it happens to be on hand. You can't afford to waste money in that way.

### Keeping Fresh Meat.

Dear Dame Durden,—As I am a reader of your excellent paper such a short time, I don't like to bring my difficulty so soon, but seeing such satisfactory answers I will venture with mine. I would like to get a recipe for canning fresh beef that would keep for over a month, as we have quite a supply on hand, and I don't like pickled beef.

Grey Co. FARMER'S WIFE.  
Fry the meat, or boil it till it falls from the bone, and remove the bone. Press the meat down in sterilized stone cracks, and pour melted lard until all is well covered. Tie a cloth or paper over the cracks, and keep in a dark, cool



WALL TELEPHONE, MAGNETO TYPE Telephone System. It won't cost much.

Write us for book of "Rural Telephone Lines—how built, equipped and maintained."

Write and we will tell you how you may have the best telephones and the best service at a fair price—and be independent of the trust. Ask for a copy of our free booklet.

## Canadian Independent Telephone Co.

LIMITED  
26 Duncan Street, Toronto, Ont.

16

## HOW ARE YOU GOING TO KNOW WHEN PRICES ARE UP?

You can't go into town several times a week to keep track of the market on dairy products, grain, vegetables and fruits. Yet if quotations are not closely followed, sales may be made when prices are low instead of high.

The only way to keep in close touch with the market is to have a

### CANADIAN INDEPENDENT TELEPHONE

then you can get information as often as necessary. When roads are bad or farm work pressing, the telephone will save you no end of driving, time and trouble.

Get the neighbors to go in with you and put in an Independent

# "Puritan" Reacting Washing Machine

The machine with the improved roller gear—a time and labor saving invention, exclusive with the "Puritan."

Then, there's the extra heavy Balance

means easy running.



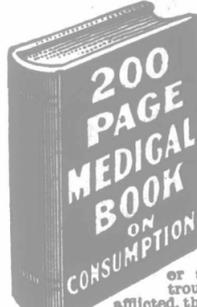
"Puritan" Washers take all the work out of washing. Write us if your dealer does not handle the "Puritan."

## "Favorite" Churn

You can churn with your hand—with your foot—or both together, with the "Favorite". Easiest churn you ever used. Roller bearings make it so. In 8 sizes—churns from 1/2 to 30 gallons of cream. Ask your dealer to show you the "Favorite" or write us for full description.

DAVID MAXWELL & SONS  
St. Mary's, Ont.

## Consumption Book



FREE

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma, or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case hopeless. Write at once to the Yonkerman Consumptive Remedy Co., 532 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot, a free and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.

## Every Woman is interested and should know about the wonderful Marvel Whirling Spray Douche

Ask your druggist for it. If he cannot supply the MARVEL, accept no other, but send stamp for illustrated book—sealed. It gives full particulars and directions invaluable to ladies. WINDSOR SUPPLY CO., Windsor, Ont. General Agents for Canada.

## LEARN DRESS-MAKING BY MAIL

In your spare time at home. We will give, direct to the public, our \$15 course, including our Ladies' Tailor course, which teaches how to make a perfect fitting waist to lesson (which teaches how to make a course of lessons). We guarantee \$5 and we will forward full course of lessons. These lessons are to give \$500 to anyone who cannot teach, from the plainest shirt waist suit to the most elaborate dress. We have been in business for over ten years, have taught over 7,000. Write for particulars. Address—SANDERS' DRESS-CUTTING SCHOOL, 31 Erie Street, Stratford, Ontario, Can.

place. All kinds of meat, also fish, will keep if treated in this way, as long as the lard is not broken to let in the air. For this reason, it is better to use small crocks, so that the contents may be quickly used up. . . . You may also keep meat by boiling it down and putting it into sterilized jars while boiling hot. When filled with the boiling meat, pour as much of the boiling stock as the sealers will hold about it, and seal tight. The only trouble with putting meat in sealers is that it is so hard to get it out in good form for slicing.

### Re Cheesemaking.

Dear Dame Durden,—We have been taking "The Farmer's Advocate" for a good many years, and have received a lot of useful information, both for farm and housework. The Home Magazine department, of course, interests me the most, and I thoroughly enjoyed Carmichael. It seemed to ring so true. I notice in March 19th issue, "Essex Farmer's Wife" asking about rennet for cheesemaking. I tried making homemade cheese last summer, and had excellent results. I went to a cheese factory, and for 25c. got enough rennet and coloring to make 100 lbs. of cheese. I used one large tablespoonful of rennet and a teaspoonful of coloring to twenty gallons of milk. This amount of milk makes about 20 lbs. cheese. I found cheesemaking very interesting work, and intend making more this summer. I wonder more farmers' wives do not try it instead of making butter in the hot weather, and I think it would pay when cheese is so high-priced. I tried making some with skim milk, but we did not like it. The whole milk is so much better. If "Essex Farmer's Wife" would like any other information, I will be very pleased to supply it, if I can. BRANT FARMER'S WIFE.

Brant Co., Ont.  
Many thanks for this information.

### Recipe Wanted.

Dear Dame Durden,—Will somebody please send me the recipe of milk chocolates, and a few recipes of homemade candy? I am sending a recipe for cream candy: Four cups of brown sugar, 1 1/2 cups of cream, 1 teaspoonful of butter. Boil till it becomes thick; then add 1 teaspoonful of vanilla, and, as you are taking it from the fire, put in a cup of chopped walnuts. Beat till cool, and put in buttered pans. JEAN HARTLEY.

Halton Co., Ont.

Can anyone send a recipe for milk chocolates? . . . Try the following for homemade candy: Chocolate Kisses.—Mix well 2 ounces grated chocolate and 1 pound sugar. Beat the whites of 2 eggs, and add; then drop on a buttered paper, and bake in a slow oven.

Peanut Brittle.—Shell, skin and chop fine enough peanuts to make one cup of nut meats. Put 1 cup sugar in a saucepan without water, and heat, stirring all the time until melted. Mix the peanuts in thoroughly; pour on a tin. When the candy begins to stiffen, mark into small squares, and continue to shape and re-mark until it hardens.

Fudge.—Put into a pan 1 lb. brown sugar, 1 cup milk, 1 ounce butter, 2 ounces grated unsweetened chocolate. Boil 15 minutes, then add 1 teaspoon vanilla extract, and pour into buttered tins. Mark into squares before it hardens.

### Some House-building Hints.

Dear Dame Durden,—As "Dapple Gray" has asked for suggestions regarding house building, I am sending a few ideas which, if they do no more, may set her and others thinking over the different points suggested.

For whom are you building—yourself or your occasional guests? If for the latter, you will probably erect a fine "city mansion," and live in the kitchen and basement; if for your own comfort and pleasure, you will have living-rooms for parlors, a cosy, cheerful dining-room, and a small convenient kitchen, which will be reserved for its proper use. Remembering that the house you build will probably stand twenty, thirty or, perhaps, fifty years, shall you build for the greatest immediate convenience of yourself and, perhaps, a large and grow-

ing family, or shall it be a house adapted to the needs of any ordinary family, not too unreasonably large for the young couple just starting in life or the parents after the children have grown and gone; nor yet too small for a family of six or eight persons?

Like Dame Durden, I am a lover of "built in" furniture, for, as she said about a year ago, there is no, above, below, or behind "to keep clean." Book-cases, chimney seats, window seats, dressers and sideboards may all be made permanent fixtures, costing about one-quarter as much as those you buy, and are, if properly made, many times more durable and more artistic. But my special "built in" hobby is the double cupboard, which forms the partition between kitchen and dining-room. The top and bottom parts of this cupboard are separated by a wide, deep shelf, reaching from one room to the other, a sliding door making the necessary closing. On the dining-room side, the top would be a china cabinet, with glass doors of leaded, diamond-shaped panes; while below the shelf would be at least one long drawer for tablecloths, and several smaller drawers for napkins, silver and other things. On the kitchen side, the top would hold all serving dishes and ordinary kitchen paraphernalia, while below would be more drawers for aprons, towels, knives, etc., and cupboards for pans and pots. Do not let this cheat you out of a kitchen cabinet in which the flour box is raised up so you sift from the bottom, and a sugar box, where you put the sugar in at the top and take it out at the bottom. These keep themselves clean; you never have to empty them and dig out the corners.

If you have a fine view from any side, I would face the dining-room that way, and have a long, low window, with a seat built below it, and never let anyone cover this window with lace curtains. Place your veranda on this side also, making the veranda at least ten feet wide, and let this be your summer living-room and dining-room. Even though it may be exposed, vines and shrubs will screen you from public gaze. But just here let me say that, in these days of autos and fast horses, it is well to keep a reasonable distance from the highway.

If possible have a hall from the front door to the back door, a vestibule in the front stairway, and doors into the rooms in the center, and another vestibule at the back in which men may wash and hang outdoor garments. "Jack" has just suggested that you be sure this rear hall is warm so that getting into one's coat in the morning may not be like taking a cold bath. If you can have this hall, never allow a "man-body" to set foot in your kitchen, but send them to the dining-room or living-room, or wherever they belong.

There is a tendency among farmers to make the dining-room a living-room. It is so easy to turn away from the table, pick up a convenient magazine or paper and settle down for the evening. I wish the Chatterers would give their views on this problem, also tell me whether we shall have a downstairs bedroom. Of course, I know it is handy in case of sickness, but would it be cheaper to build this room or hire a nurse when sickness comes? As a "spare" bedroom, I find it a distinct failure unless there is a man to sleep in it. I tried mine recently on a friend, but she came flying upstairs in the middle of the night, declaring there were burglars in the house. It took her several hours to get over her fright (it was only a mouse nibbling in the wall), but it took me a very few minutes to decide that never again would I put a woman in that bed alone.

Of course, you will put in a bath-room, a kitchen sink, and a basement laundry with a sink into which all wash water may be emptied.

In regard to mouldings and finishings, I have yet to be convinced that there is any beauty in "gingerbread" scrolls and curves, in cutting good boards into dust-catching furrows for mouldings, making doors a series of tiny panels with corners no one ever keeps clean. but the crowning evil comes when a "grainer" is turned loose with his paints and brushes to make streaks and splashes, such as never grew in any tree on earth. Surely as long as we have ash, oak, chestnut and Georgia pine in the land, with their beautiful natural "graining," it is a case of "gilding refined gold and

# Send for this now



Get the free book that tells "When Poultry Pays," and is packed with facts you ought to know about the up-to-date way to go into poultry-farming without big capital. Book describes outfits and the plan that makes success certain. Costs nothing to get it. Explains how we find you a cash buyer for your product. Proves why Peerless Incubators, Peppercorn Brooder and our so-called cash-down way of selling, guarantee success for you before edition is gone—no charge for it. With the free book we send full details of how to get a Peerless Poultry-See-Fruit Quality without putting up a cent of ready money. . . . How to make your house your start that poultry-raising will pay you. Get the book NOW.

Address The LEE-HODGINS CO., Limited  
485 Pembroke St. PEMBROKE, ONT.

## WE KNOW HOW, THAT'S WHY

We are often asked how it is we are so successful in the treatment of skin troubles and facial blemishes even after other well known specialists fail. We know how, that's all, and we never experiment. When we say

Our Home Treatment will cure pimples, blotches, blackheads and eczema, we tell you what is true. We never publish testimonials (we have any number and none are bogus), they savor of quackery. Consult us free at our office or by mail. SUPERFLUOUS HAIR, Moles, Warts, Etc., eradicated forever by our method of electrolysis. Satisfaction guaranteed. Booklet "E" sent on request.

Hiscock Dermatological Institute,  
Dept. F. 61 College Street, Toronto. Estab. 1890



## A Suffering Hen

Lice attack the vitality of an infested hen so persistently that there is no "let up" in her misery. There will be a "let up," however, in your profits, for no hen is sufficiently vigorous to support voracious myriads of hungry lice and also lay eggs. Whether you suspect the presence of lice or not, now is the time to begin to use

## Instant Louse Killer

It will kill them if present and prevent their coming if you don't have them. Sprinkle it freely about nests and roosts, dust the hens with it and apply wherever there is the possibility of lice harboring. Instant Louse Killer is the prescription of Dr. Hess (M.D., D.V.S.) and destroys lice on cattle, horses, ticks on sheep, rose slugs, cabbage worms and bugs on cucumber, squash and melon vines. Comes in shaker-top cans and may be used winter and summer alike. Good also as a disinfectant.

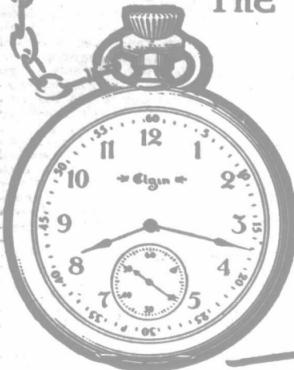
SOLD ON A WRITTEN GUARANTEE  
See that the word "Instant" is on the can.  
1 lb. 35 cents 3 lbs. 85 cents

If your dealer cannot supply you, send your order to us.

Manufactured by DR. HESS & CLARK, Ashland, Ohio, U. S. A.

"Not for an age, but for all time"

The **ELGIN** WATCH is the world's timekeeper



Every Elgin watch is fully guaranteed. All jewelers have Elgin Watches. An interesting, illustrated booklet about watches, sent free on request to **ELGIN NATIONAL WATCH CO., Elgin, Ill.**

### Proving by Actual Experiment



This experiment will always interest the children, and will provoke a good deal of thinking. The explanation, of course, is, that the lighted piece of paper which is inserted into the inverted glass drives out most of the air, so that when the mouth of the glass is quickly put down into the water there is very little air, and, consequently, very little pressure above the water within the glass. Hence, the weight or pressure of the air on the water outside the glass drives the water up into the glass to occupy the space from whence the water was driven by the burning paper.

A practical demonstration of this kind is always more convincing than any mere statement. This is particularly true of medical remedies.

The effect of the anti-toxin treatment for diphtheria is noticeable within a few hours, so that everyone must believe in its virtue. In a similar way, the treatment known as **ORANGE LILY** gives a practical proof of the progress it is making in curing women's disorders, and that, too, within a few days after commencing its use.

All authorities agree that in every case of women's disorders there exists a congested condition of the womanly organs. The circulation in these parts is sluggish or stagnant, and the result is that the broken-down tissue or waste matter which should be carried off if the blood was circulating freely, remains in these parts, causing inflammation, irritation, oppression of the nerves, etc. **ORANGE LILY** is not taken internally, but is applied direct to the suffering organs. It is absorbed into the circulation, and its antiseptic properties at once act on the waste matter referred to above. The consequence is that this waste matter, which is causing the inflammation, ulcers, nervous troubles, etc., begins to be discharged, and it continues to be discharged until all the foreign matter is removed from the circulation. At the same time the blood vessels and nerves are toned and strengthened, the nervous trouble disappears, the circulation is restored and good health follows.

Toronto, Ont., June 2, 1904.

Dear Mrs. Currah:—I wish to tell you that Orange Lily is doing me a great deal of good. Those ulcers come away one or two every week, and I have less pain and fewer headaches. I feel sure I will be perfectly cured in a little longer time. MRS. D. S. T.

The explanation of the wonderful cures performed by **ORANGE LILY** is very simple. It is a scientific remedy, based on the discoveries of Pasteur and Lister. The conditions existing in all female troubles are alike in character, differing in degree and development only, so that a positive remedy, as **ORANGE LILY** is, acts with all the certainty of a chemical experiment. In order to convince every suffering woman that **ORANGE LILY** will cure her, I make the following

#### FREE TRIAL OFFER

I will send without charge, to every reader of this notice who suffers in any way from any of the troubles peculiar to women, if she will send me her address, enough of the **ORANGE LILY** treatment to last her 10 days. In many cases this trial treatment is all that is necessary to effect a complete cure, and in every instance it will give very noticeable relief. If you are a sufferer you owe it to yourself, to your family and to your friends to take advantage of this offer, and get cured in the privacy of your home, without doctor's bills or expense of any kind.

Should any lady desire medical advice or information on any special feature of her case, I will be happy to refer her letter to the eminent specialist in women's diseases, Dr. D. M. Coonley, President of the Coonley Medical Institute, and he will answer her direct. Dr. Coonley is the discoverer of the **ORANGE LILY**, and has had over 30 years' experience in the treatment of these diseases. No charge will be made for this medical advice. Address, inclosing 3-cent stamps, Mrs. Frances V. Currah, Windsor, Ont.

**Orange Lily is recommended and sold in Toronto, Ont., by The T. Eaton Co., Ltd. (Drug Dept.).**

## Subscribe for the Farmer's Advocate

painting the lily" to use anything but oil and wax on woodwork.

As a last suggestion, let me say be sure you know what YOU want, not what the architect may tell you you should have. Let your house express your own individuality, and not be a copy from anyone. JACK'S WIFE.

I am heart and soul with "Jack's Wife" in all of the ideas above, except one. I think I should have the living-room face the finest view, and have the best window placed therein, keeping the dining-room apart. To my mind, a dining-room should be just large enough for table and chairs, with a goodly passage left on all sides for the use of those who wait on the table. I should have the sideboard built in, and the decoration of the room dependent upon flowers in the windows, beautiful wall paper, and a very few good pictures or a plate-rail. I don't think a dining-room should be used for a living-room. If not, the tablecloth may be left on all week, and the dishes may be replaced as soon as washed, the whole table being covered with a cheesecloth spread when not in use. You have no idea how much work this plan saves until you have tried it. . . . More ideas, please.

#### Scroll Rug Patterns.

Having read in your valuable paper of "Maple Leaf's" (Huron Co., Ont.) request for a scroll pattern for a mat, am sending you an address. If she writes to it, she will get their price list and several patterns to choose from. Ad-

dress: John E. Garrett, New Glasgow, Nova Scotia. Hoping this will be a benefit. A READER.

Leeds Co., Ont.

#### From Maple Leaf.

Dear Dame Durden.—It is with pleasure I enter your Nook. I often thought I would like to, but felt a little shy about coming, but I have been treated so well I will not fear in the future. I thank "Valentine" for the lovely scroll pattern she has sent, and I am sending an excellent recipe for Spanish bun and one for ginger cake.

I thank Miss Nellie Sutherland, too, for her trouble. I might help her some time in the future. We have all the back numbers of "The Farmer's Advocate," and the children have a treat reading them over again. We have taken it a long time, and it is a welcome visitor. I love the "Quiet Hour." May "Hope" long be spared to fill her little corner.

Spanish Bun.—Excellent. Stir well together 1 pint sugar,  $\frac{1}{2}$  cup butter, add the beaten yolks of 4 eggs, 1 cup sweet milk, 1 tablespoon cinnamon,  $\frac{1}{2}$  spoon of cloves, 1 heaping pint of flour, 1 cup chopped raisins. Mixed with part of the flour and 2 teaspoons baking powder. Add, last, whites of 4 eggs well beaten. Bake in a small dripping-pan, and frost with chocolate icing.

Ginger Cake (without milk or eggs).—One cup molasses,  $\frac{1}{2}$  cup butter, 1 cup boiling water,  $2\frac{1}{2}$  cups flour, 1 teaspoon soda, 1 teaspoon ginger.

Huron Co., Ont. MAPLE LEAF.

#### "THE FARMER'S ADVOCATE" FASHIONS.

## POWER LOT

A Story of "Down East."

BY SARA McLEAN CREINE.

[Rights of publication secured by The Wm. Weld Co., Limited, London, Ont.]

#### CHAPTER III.—Continued.

"Say, I c'd kick myself"—expostulated Captain Belcher reasonably—"for not havin' no more memory. 'Hilton—Hilton'—Sure. That's it. Now I'm goin' ter lay that away, jest the way it is, along o' the dried sage an' boneset in my old garret here," he tapped his forehead depreciatively.

"And remember, it's you that's carryin' the 'stuff,'" Rob reminded him, bitterly.

"'Hilton.' Yes. Le' me see, what was I sayin'? Oh, yes—we got a prescription 'round here that's a wonder-worker on any man what's predisposed to pulmonary affectations. This 'ere prescription—she's a mericle."

"A what?" sniffed Rob. "She's a mericle in her drawin', savin' power, that's what she is. She sucks out the inflammation like a double pad o' Griswol's Ol' Family Salve, that's what she does."

"Well, what is it?" said Rob, as testily as his general contempt and indifference for the subject would allow.

"It's—she's—ahem—she consists of—Giddup thar! giddup! what ye yavin' all over the road for! She consists o' a plow, an' a shovel, an' a spade, an' a hoe, an' other implements, an' it'd every half-hour with a gallon er two o' elbow-grease. She's a d—n hard dose ter take. I been a-takin' of her, all my life. But she socks right down ter work 'an' does the job every time. She reds ye o' every pulmonary affectation so clean ye wouldn't know ye'd got any pulmonary for affectations ter light on. By the Livin' Wheelbarrow, I know what I'm talkin' about too."

"That's lucky," Rob managed to sneer painfully, his great overcoat sagging on his arm, his spent breath coming in gasps that were almost sobs, as he made another desperate effort to keep up with the procession; "that's lucky, for I don't."

"No, ye don't, Mr. Lee—Mr. 'Hilton,' as soon as ye get to the top—I won't forgit my 'ngagements. No,



5951 Child's Coat with Cape, 2, 4 and 6 years.



5947 Tucked Blouse, 32 to 42 bust.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Be careful to give Correct Number and Size of Patterns Wanted. When the Pattern is Bust Measure, you need only mark 32, 34, 36, or whatever it may be. When Waist Measure, 22, 24, 26, or whatever it may be. When Misses' or Child's pattern, write only the figure representing the age. Allow from one to two weeks in which to fill order, and where two numbers appear, as for waist and skirt, enclose ten cents for each number. If only one number appears, ten cents will be sufficient.

Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

Readers interested in extravagant action in horses, such as is so much demanded and admired in Hackneys, should make note of the advertisement of G. E. Gibson, of Oakham, England. Mr. Gibson is the inventor of an appliance made of strands of elastic that teaches horses to bend their knees and flex their hocks. Write to him for particulars.

ye don't, but the medicine's waitin' for ye all right, and, as man ter man, I wish ye the pluck ter swaller it without kickin'.

"I have not," said Rob with apparently dying breath. "I'm going back—to New York—first chance I can get."

"Sho. Wal', brace up," said Captain Belcher, with genuine commiseration, as he surveyed the exhausted victim; "brace up. We're most thar. Mebby now, God A'mighty sent ye, arter all, in some kind o' katy-cornered way ye don't see the lights of, yit."

"I do," sobbed Rob, with an oath. "Wal', I been sayin' to myself, you're a cur'ous kind o' crittur ter be exploitin' 'round up here for ways ter make a livin'.

"I've had a dirty trick played on me, that's all," muttered Rob. "Joke, eh?" The captain's red face fairly cracked in a grin of helpless sympathy for those on the other side of the game.

"Say, jest cock yer eye off thar to wind'ard," he continued, in that unaccustomed comment upon nature which the presence of a stranger probably incited in him.

Rob, still panting, purposely kept his back to the vision, an angry and despairing growl in his eye.

"Perhaps ye'd rather look at things 'round nearer hum'?" suggested the captain. "Wal', that's Mary Stingaree's place off thar, 'tother side the lane."

Rob saw, and turned with an unstill groan to face the terrors of the larger view. He shuddered, and once more turned about.

"Don't feel so down-in-the-mouth," Captain Belcher again entreated him kindly; "it's good pertater land."

"What kind o' land?" Rob echoed, with the now pallid ghost of a sneer.

"Good land fr raisin' pertaters, ef ye take the foresight ter lay on a top-dressin' o' fish-gurry an'—"

"Spare me the particulars," interposed the fastidious Rob, with a dying snarl. "I'll take your word for it."

"Why, I was jest goin' ter mention"—there was an inflection of chaste dignity and reproach in Captain Belcher's tones—"I was just goin' ter mention a leetle kelp, 'r sea-weed, along o' the fish-gurry. Ye ain't so qualmy but what ye c'n hear them mentioned, be ye?"

"I was tryin' ter ding it inter ye, 't a man with any gumption 't all, even ef he had come off the nest kind er half-baked, could cl'ar a hundred dollars a year off'n his pertaters, over 'n above livin' expenses; pervided, of course, 't he don't make a hog o' himself."

"And if he should make a hog of himself?" asked Rob, in confiding satire. The struggle with the hill had cleared his brain, and he spoke with treacherous smoothness.

"Depends entirely," said Captain Belcher, faithfully, "on how much er a hog he makes er himself."

"Exactly. And if he doesn't make a hog of himself, he clears a hundred dollars a year?"

Laughter hung, open-mouthed, on the visages of the surrounding group.

"Are all this lot, that's tagged me up the hill, going to the house with me?" Rob further complained from the sodden depth of his despair.

"I 'low ye," Captain Belcher responded heartily, "that ain't fair. See here, boys, Mr. Hilton is a-goin', kind er petered-out, an'—ahem—all mussed-up, with his long journey, ter meet a beautiful, highly-eddicated young lady, what you knows on, over yander. She knocks the sand all outer me with them eyes o' hern when I got my Sunday rig on. How d' ye suppose Mr. Hilton feels?—all sweaty, an' sick 's a cat at the aspecks o' the kentry? Now you git—hum'."

That Captain Belcher was a man of valiance was exemplified by the obedient haste with which the group dispersed, dodging off among the fir trees and boulders that surrounded the trail of the "Steep Way."

Rob and the captain, and the exceeding noise made by the cart bearing the boxes, progressed toward the Stingaree house; and that, it must be said, with a reluctance on Rob's part that was well-nigh recalcitrant.



# Farmers Who Want Roofing

Should not be misled by extravagantly-worded advertisements making false claims. An inferior roof requires statements such as these to sell it. Wise farmers ask for proof, and are not influenced by useless conditional guarantees.

## Our "Safe-Lock" Steel Shingles

are, beyond doubt, the best-constructed metal shingles on the market. They lock perfectly on all four sides, and cannot leak. We have been making "Safe-Lock" Shingles for ten years, and those which we sold the first year are still giving satisfaction—they're just as good as the day they were put on.

MR. W. J. MCPHERSON, OF BERRYTON writes us on March 18th, 1908, as follows: "The Safe-Lock Shingles that I purchased from you ten years ago have given splendid satisfaction. The roof has never leaked a drop, and they seem to be just as good as the day they were put on."

MR. GEORGE HARDY, OF ASHGROVE, under date of March 23rd, says: "It will be eight years in June since the barn was shingled. I never had any trouble with it in any way, and it appears to be as good as when put on. I have been recommending your shingles as the best that can be bought."

These are only samples of letters which we are constantly receiving, and we think they are a stronger proof of lasting satisfaction than any proud boast or guarantee that we could give. Is it not wisdom to use Roofing which has given satisfaction for ten years and shows no signs of wear, in preference to buying on the strength of some unreliable claim, backed by a worthless guarantee? If you place your order with us, we will give you honest goods and fair, liberal treatment. You are privileged to return any shipment we make if the goods are not strictly equal to the catalogue description.

## Our "Acorn Quality" Corrugated Galvanized Sheets

for use on new barns where sheeting boards are dispensed with, are specially selected for farm roofing. If you buy corrugated sheets from us, you will be assured of getting good quality at lowest prices, and avoid being caught with some of the inferior sheets now being offered.

MR. CHAS. CLARKE, TATEHURST, QUE., says of our "Acorn Quality" Corrugated Galvanized Sheets: "I can recommend your roofing as the best."

MR. R. H. SPENCE, METZ, ONT., tells us: "We put your Corrugated Roofing last summer on our new barn, and we can safely recommend it as being dry."

We are "Roofers to the Farmers of Canada," and we will not send out any inferior sheets, representing them as best quality. We would refer you to any business house in Preston, or to any bank, as to our reliability and honorable business dealings. We want your orders, and we know that we can give you satisfaction. Send us particulars of your requirements, and we will be pleased to submit estimates. We will also send you our handsome new catalogue, No. 20, which contains cuts of many farm buildings covered with our materials. We shall also be glad to let you have a copy of our Book of References, with names of people who have used our goods in all parts of Canada. Remember This, Our Roofing Makes Buildings Lightning-proof.

THE METAL SHINGLE AND SIDING CO., LIMITED, PRESTON, ONT. "Roofers to the Farmers of Canada."



"Ef the God o' the elements don't thwart him with some queer ructions in the weather line, he does."

"You astonish me."

"I done it accidental, then."

"You fill me with ambition, with hope." There were wild tears, nevertheless, in Rob's eyes. "When does the next boat sail back to Waldeck?"

Captain Belcher shook his head. "Onsartin. Hit or miss. Jest as it happens. Sometime, or no time. Nothin' regular. Sure, we goes fishin' on the Basin, an' a ways out inter the Bay, more or less, 'cordin' to the weather, but take us, by an' large, we're more farmin' 'n what we use ter be; an' it's a peccoliar ledgy, murderin', nasty long sail over ter Waldeck. Jim's about the only one 'round here, now, 't associates, reg'lar, along o' the gulls. The wood-packets—they make out, occasional, but the 's no reckonin' on 'em, and they're so leaky the eels shins up through their bottoms."

"Where is Jim?"

"That's what we're allus askin'. He's here an' thar—Jim is;—mostly thar."

Laughter hung, open-mouthed, on the visages of the surrounding group.

"Are all this lot, that's tagged me up the hill, going to the house with me?" Rob further complained from the sodden depth of his despair.

"I 'low ye," Captain Belcher responded heartily, "that ain't fair. See here, boys, Mr. Hilton is a-goin', kind er petered-out, an'—ahem—all mussed-up, with his long journey, ter meet a beautiful, highly-eddicated young lady, what you knows on, over yander. She knocks the sand all outer me with them eyes o' hern when I got my Sunday rig on. How d' ye suppose Mr. Hilton feels?—all sweaty, an' sick 's a cat at the aspecks o' the kentry? Now you git—hum'."

That Captain Belcher was a man of valiance was exemplified by the obedient haste with which the group dispersed, dodging off among the fir trees and boulders that surrounded the trail of the "Steep Way."

Rob and the captain, and the exceeding noise made by the cart bearing the boxes, progressed toward the Stingaree house; and that, it must be said, with a reluctance on Rob's part that was well-nigh recalcitrant.

"Say, she is a han'some young woman, an' no mistake—Mary Stingaree is." Thus the captain attempted to prod the jaded senses of the being beside him. But Rob had another thought, and its essence was of the lowest dregs of bitterness.

"If you remember," he once more reminded the Captain, "it's you that's carrying the 'stuff.'"

"Don't mention it," shouted Captain Belcher obliviously, in a tone of lordly willingness to oblige, but he did not return the bottle to Rob's wistful hand; "don't never mention it. Allus glad ter do ye a favor when I kin. Whoa thar, Buck, Whoa, Bill. I offered to back ye up to the door, but I didn't want ye ter send the cart clean through the house, dang ye."

(To be continued.)

While there is a great variety of material fed to pigs, it should be remembered that it is the properly-matured animal that gains the place of honor, though unfortunately it often happens that the man who produces the right material too often fails to reap the reward and benefit to which he is entitled.

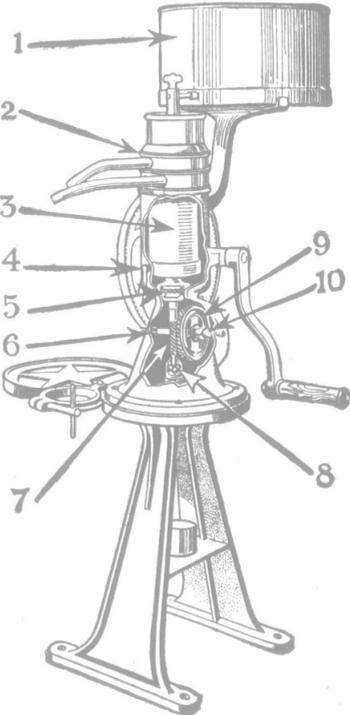


# FRICITIONLESS EMPIRE CREAM SEPARATOR

## Here are 10 Points Wherein It Excels

and, of course, there are a great many more which you will find in our Big Free Dairy Book which we will mail to you and as many of your friends as you suggest. It is considered the most interesting Dairy Book of the day. It cost us a lot to prepare, but it is free to you. Send for it to-day.

- 1 Heavy three-ply tin supply can. Holds good supply of milk and is low enough for a woman to easily pour milk into it.
- 2 Feed cup, skim milk cover and cream cover made of pressed steel, tinned. Absolutely true, and doubly as strong as the tin kind used in others.
- 3 Light weight bowl—chief cause of easy running.
- 4 Very simple brake, applied at the base of the bowl, the only place where a brake may be used without injury to the bowl. No wear on bowl—all on a little leather washer.
- 5 Ball Neck Bearing which eliminates all wear on the spindle. Takes but ten drops of oil a day.
- 6 Case hardened pinion gear cut out of worm wheel shaft. Practically indestructible.
- 7 Spindle threaded to bowl. If ever wear should occur it can be unscrewed and replaced at less cost than on any other separator.
- 8 Three ball bottom bearing on which the point of the spindle revolves when bowl is in motion. The point costs little to renew. No wear on the spindle proper. Bowl will always adjust itself to proper centre.



- 9 Worm wheel clutch stops all mechanism when crank is stopped, with exception of bowl and worm wheel. No lost motion in again starting crank as clutch grips instantly and without jar to the mechanism.
- 10 Points on worm wheel shaft are case hardened until they will cut glass. Fit into case hardened sockets. Wear is reduced to a minimum. Worm wheel and its shaft may be taken out and replaced by just removing a plug on one side. Cannot be put back wrong. In fact, there is not a single part of the Frictionless Empire that can be placed anywhere but in its correct position.

**Free Trial** We will send the Empire Frictionless to you for free trial if you will just say so.

**The Empire Cream Separator Company of Canada Limited**  
 Western Office, Winnipeg. Toronto, Ont.

**INSURE YOUR HEALTH AND COMFORT**  
 on stormy days by wearing a

**TOWERS' FISH BRAND WATERPROOF OILED CLOTHING**  
 Clean - Light Durable  
 Low in Price

PLEASE MENTION THIS PAPER

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.

### GOSSIP.

The prize-list for the Canadian National Horse Show, to be held in St. Lawrence Arena, Toronto, April 29th to May 1st, includes liberal prizes for horses in harness, single and in pairs, tandems and four-in-hands; saddle horses, hunters and jumpers, roadsters, ponies, polo ponies, Clydesdale mares or geldings, single and in pairs, and Hackneys, stallions and mares in harness. The prospect is bright for an exceptionally strong show, and reduced railway fares will render the expense of attendance moderate, so that a very large attendance is assured.

### BROWNLEE SHORTHORNS.

A short distance from Ayr Station (C. P. R.) is Brownlee Stock Farm, the property of Mr. Douglas Brown, breeder of high-class, dairy-bred Shorthorns. This now noted herd, some 25 strong, represents, without doubt, one of the greatest milking strains of Shorthorns ever introduced in Canada, namely, the descendants of that great cow, Imp. Beauty, by Snowball. Not only are this strain heavy and persistent milkers, but many of our most noted show animals trace their lineage to that great cow. The foundation cow of this herd was Elgitha 29th =39427=, by Duncan Stanley. The older ones, daughters and granddaughters of hers, are the get of Imp. Christopher, and Imp. Beauchamp, on which was used for a number of years the bull, Blenheim Stamp =42464=, by Imp. Kinellar Stamp, dam Rosebud of Blenheim, who is also a descendant of Imp. Beauty, by Snowball, thus giving the herd a double cross of that great cow, the influence of which is seen in the splendid yield at the pail. From such breeding as this, there are now for sale seven young bulls, from 6 to 19 months of age, and some of these are exceptionally choice individuals, as are their dams. There are also for sale half a dozen heifers, from seven months to two years of age, all sired by Blenheim Stamp. We forgot to mention that one of the young bulls, a red, eleven months of age, is sired by that great stock bull, Imp. Bapton Chancellor. The others are all by Blenheim Stamp. Parties on the lookout for dairy-bred Shorthorns, either male or female, should look after these. The present stock bull is Nonpareil Victor =63307=, a roan son of Imp. Nonpareil Duke; dam Imp. Orange Blossom 3rd, a Marr Roan Lady, by Scottish Prince; grandam by Remus; this is an extra choice bull of the low-down, thick, even-type, a splendid doer, and a splendid handler. All the females are now in calf to him. Write Mr. Brown, to Ayr P. O., Ont.

### THE HORSE SHOW.

Leading Canadian Owners Buying in New York. A Great Array of Horses Promised.

The Fourteenth Canadian Horse Show, to be held in the St. Lawrence Arena, Toronto, on April 29th, 30th, May 1st and 2nd, promises to outshine in numbers and quality of horses all its predecessors. In spite of the financial depression there will never have been so many high-class horses brought together. In Canada, horses of show-ring calibre are so scarce or else held so high that several leading Toronto gentlemen have had recourse to the New York market, and purchases have been made there recently by Mr. E. C. Cox, and Mr. J. J. Dixon, with the sole purpose of securing ribbon winners for the Toronto Show. A very notable saddle horse which has swept the ring in New York will be shown in May Morning, formerly the property of the late J. W. Harriman. This mare was bought in New York by Miss Eva Booth, the head of the Salvation Army in America, who is an ardent horsewoman, and depends largely for her health on equestrian exercise. A condition of the sale made by the vendor was that the mare should be exhibited at Toronto. Among the other leading exhibitors are Hon. Adam and Mrs. Beck, London, who have 10 new hunters; A. Yeagher, Simcoe, Dr. R. E. Webster, Ottawa; Langdon Wilks, Galt; Gordon J. Henderson, Hamilton; Dr. S. H. McCoy, St. Catharines; Aemilius Jarvis, Dr. W. A. Young, George W. Beardmore, Crow & Murray, George Pepper, Toronto. There will be reduced rates on all railways.

Barley yields more than twice as many bushels to the acre as wheat,—is easier grown,—and the demand will be great this year. That's plainly why

## it will pay to sow barley-

Only 48 lbs. to the bushel,—and bright barley brought 80c. last year. It will bring more this. No chance of a glutted market. Plenty of buyers. Sow barley,—it will pay you to.

# MUSKRATS

I want 250,000 Muskrats, and, as the season is short, must get them in a hurry. Write for prices. We pay spot cash—and all express charges.

John Hallam, 111 Front St. E. TORONTO

# MUSKRATS

## "Barker" Weeder and Mulcher

Does the Work of 5 Men with Hoop. It cuts weeds as a lawn mower cuts grass, and is just as easy to operate. It not only cuts the weeds above the ground but below the surface as well, thus destroying several crops at one mowing. It saves time, saves money, saves work—lasts a lifetime, and you do as much mulching and cultivating in an hour as a man with a hoe will do in five.

Our catalogue of Wagon Backs, Root Cutters, Planters, Seed Drills, Cultivators, etc., sent free on application.



Will give address of your nearest dealer.

THE EUREKA PLANTER CO. Limited Woodstock, Ont.

## Grafton Handy Cattle Stanchion

Patented 1908. Now made of iron in use. Secures or releases full row instantly, or one or more, without using lever. Easily operated. Cows always clean comfortable and abundance of liberty. Space a justable to any size. Cheap, strong, durable. Illustrated circulars ready.

Royal Grafton, Mt. Charles, Ont.

## Choice White Oats!

IRISH AND DODDS } Grown from seed obtained from Wm. Rennie.

JOHN LEE, GALT, ONTARIO.

SEND \$1 receive 5 cloth remnants, suitable for boys' knee pants up to 11 years. Give age and we will cut out pants free. Add 25c. for postage. N. Southcott & Co., 8 Coote Block London, Canada.

If You Have A  
**Talking Machine**

which takes a flat record  
we will send you our  
Record Catalogue free every month.

**Y**OUR machine need not be a Gramophone or Victor—but it must be a disc or flat record machine—in order to receive our monthly record catalogue free of charge.

If your name is not on our mailing list, write us to place it there—telling us, at the same time, the name and factory number of your Talking Machine.

Our new catalogue and other interesting news will appear shortly. Send in your name to-day so you will receive it promptly on publication.

**THE BERLINER GRAM-O-PHONE CO. OF CANADA, LIMITED,  
DEPT. F. A., MONTREAL.**

**We've Only One Iron  
In the Fire!**



That is, making Cream Separators; and it takes our entire time. That is why we manufacture a Cream Separator, "The Magnet," that we are able to guarantee as to accuracy, quality and durability.

When you propose to buy a carriage, the first thing you do is to examine its construction. Should you find one built to run on one wheel, you would immediately condemn it as being no good for your every-day purposes.

If you examine Cream Separators you will find all makes, except one, apply the one-wheel principle to the running of the bowl; that is, the support is placed at one end of the bowl only.

The Magnet Cream Separator is the exception, and it is made by us. It has a bowl supported at the top as well as at the bottom, thus giving it steadiness of motion, and preventing it getting out of balance. It also makes it very easy to turn; in fact, so easy that a child of four years can turn it.

See page 18 in the Catalogue.

This double support of the bowl is protected by patent, and can be found only on the Magnet.

Note also the one-piece skimmer. It is easy to clean, and takes all the cream out of the milk.

WRITE FOR CATALOGUE NO. 11.

**THE PETRIE MFG. CO., LTD.**

Hamilton, Ont. Winnipeg, Man. St. John, N. B.

Western Distributing Points:

REGINA, SASK. VANCOUVER, B. C. CALGARY, ALTA.

**NOTICE TO READERS!**

When writing advertisers kindly mention "The Farmer's Advocate."

**GOSSIP.**

Woodbine Stock Farm is situated four miles south of Ayr, Ont., the property of Mr. A. Kennedy, breeder of high-class Holstein cattle. This herd was established twenty-three years ago by the purchase of the best that money would buy, and has always been headed by the greatest butter-bred sires obtainable, among which might be mentioned Dora Beets 3rd's Pietertje Netherland, sired by Milla's Pietertje Netherland, whose dam is Pietertje 3rd. This bull is pronounced to be the greatest foundation sire of the breed; dam Dora Beets 3rd, 18 lbs. butter in seven days; she is the dam of Jessie Beets, who is the dam of Paul Beets De Kol, sire of 81 A. R. daughters, the greatest sire of the breed. Homestead Albino Paul De Kol, four official records in his pedigree that average 25.4 lbs. butter in seven days, tracing four times to De Kol 2nd, 26.57 lbs. butter in seven days; sire Pietertje Hengerveld's Paul De Kol; is the greatest combination of producing blood; a brother to Paul Beets De Kol; being sired by De Kol 2nd's Paul De Kol, sire of 42 A. R. daughters; his sire, Paul De Kol, sire of 37 A. R. daughters; sire's dam, Pietertje Hengerveld, 21 lbs. butter, dam of Pietertje Hengerveld's Count De Kol, 72 A. R. daughters; a brother in blood to Hengerveld De Kol, sire of 71 A. R. daughters; Sir Mechthilde Posch, sire Sir Abbeker Posch, a full brother to Alta Posch, 27.12 lbs. butter in seven days, as a two-year-old, and Mercena 2nd, 27.63 lbs., at same age; sire's dam holds world's largest two-day public-test record, 8.6 lbs. butter; dam Ianthe Jewel Mechthilde, 27.65 lbs. butter in seven days, dam of several A. R. daughters, her sire's sire is the greatest private-record-backed bull that ever lived. These great sires are succeeded by Sir Creamelle, sire Duchess Ormsby Hengerveld De Kol Prince, brother to Queen Ormsby, 28.383 lbs. butter in seven days, average test 5.13 per cent. fat; his sire's dam, Duchess Ormsby 3rd, 22 lbs. butter, is the dam of Duchess Piebe De Kol, 29.44 lbs. butter, and a daughter of Duchess Ormsby, 24.44 lbs. butter; sire's dam is a daughter of Duchess Ormsby 2nd, 21.313 lbs. butter; dam of Duchess Ormsby 2nd's Queen, 22 lbs. butter; her dam, Duchess Ormsby, has five daughters with official records that average over 20 lbs. butter each in seven days; dam Creamelle Hengerveld, 21.251 lbs. butter as a two-year-old; second dam, Creamelle, a sister to the dam of De Kol Creamelle, 28.131 lbs. butter, and world's champion milk cow, 119 lbs. milk in one day, 780.6 lbs. milk in seven days; third dam, Creamelle 2nd, 18.4 lbs. butter in seven days, dam of four A. R. daughters; this bull combines the blood of the champion milk cow, and the highest-per-cent. fat family of the breed. There are two extra fine young bulls ready for service, and a number of bull calves offered for sale at present, sired by Sir Mechthilde Posch, out of dams with breeding that tells beyond the first generation. For fuller particulars, address A. Kennedy, Ayr P. O., Ont.

**TRADE TOPIC.**

**LAND OF LITTLE FRUIT FARMS.**—The most remarkable statements are made of the money that is being made upon small tracts of fruit lands in the Kootenay district, in Eastern British Columbia. John Hyslop and his good wife raised a family that any man might feel proud of, depending for years for their income upon a fruit farm of only one and one-eighth acres extent. His home is near Nelson, B. C., and his case is only exceptional because he has been a pioneer in the fruit industry, and his story is interestingly told. The Kootenay Orchard Association, with headquarters at Nelson, B. C., is doing a lot of work in bringing to the attention of the people of the older portions of Canada, and also the United States, to this comparatively little-known fruit country. We have accounts which challenge comparison with the finest fruit regions of the Maritime Provinces. Fruit shipped to London in 1906 from the Nelson fruit exhibit won the prizes awarded for superior quality over fruit from every British possession.

**EASY TO MIX THIS.**

What will appear very interesting to many people here is the article taken from a New York daily paper, giving a simple prescription, as formulated by a noted authority, who claims that he has found a positive remedy to cure almost any case of backache or kidney or bladder derangement, in the following simple prescription, if taken before the stage of Bright's disease:

Fluid Extract Dandelion, one-half ounce; Compound Kargon, one ounce; Compound Syrup Sarsaparilla, three ounces. Shake well in a bottle, and take in teaspoonful doses after each meal and again at bedtime.

A well-known druggist here at home, when asked regarding this prescription, stated that the ingredients are all harmless, and can be obtained at a small cost from any good prescription pharmacy, or the mixture would be put up if asked to do so. He further stated that while this prescription is often prescribed in rheumatic afflictions with splendid results, he could see no reason why it would not be a splendid remedy for kidney and urinary troubles and backache, as it has a peculiar action upon the kidney structure, cleansing these most important organs and helping them to sift and filter from the blood the foul acids and waste matter which cause sickness and suffering. Those of our readers who suffer can make no mistake in giving it a trial.

A lawyer was consulted not long since by a colored man, who complained that another negro owed him \$3, a debt which he absolutely refused to discharge. The creditor had dunned and dunned him, but all to no purpose. He had finally come to the lawyer in the hope that he would give him some good advice.

"What reason does he give for refusing to pay you?" asked the legal man. "Why, boss," said the ducky, "he said he done owed me dat money for so long dat the intetest had et it all up, and he didn't owe me a cent."

**THIS YEAR  
PLANT  
PEAS**

Field peas have sold high for several years,—85 and 87 cents a bushel last year. This year's export demand will be keen,—profit there for shrewd farmers.

**PPP**

Two profits in a pea crop,—the peas and the vines,—rich cow-fodder, valuable green manure, high in nitrogen. Now that the pea-bug has quit business in Canada, peas PAY and pay BIG.

**PPP**

Easy crop to handle,—quick-growing,—does well even on "tired" land,—and a SURE MARKET at profitable prices for all you can raise. Plant peas early,—April and early May is best.

**Sow  
Some  
Soon**

**Aberdeen - Angus Bulls!**

Two nice young Aberdeen-Angus bulls for sale at a bargain; also females.

J. W. BURT, Coningsby, Ont.  
Erin station, C. P. R.

**MORE GOOD CIDER CAN BE MADE**

From a given amount of apples with one of our presses than with any other, and the juice will be purer, better keeping, and bring higher prices.

**HYDRAULIC POWER PRESSES**

Various makes. Various sizes. 25 to 400 lbs. capacity. Also Steam, Expressors, and other presses.

THE HYDRAULIC PRESS MFG. CO.

Dept. 10 Mt. Gilead, Ohio



QUESTIONS AND ANSWERS.  
Miscellaneous.

COLT TEETHING—PLANTING  
FRUIT TREES—FALL PAS-  
TURE—SPRING  
SEEDING.

1. Horse, rising four years old, does not thrive well. He feeds well, feels well, but is in poor condition. He has no worms, and is fed liberally, with sufficient work or exercise to warrant a much higher condition. Is it possible his teeth are troubling him? Can anything be done to improve his condition if he is losing his teeth?

2. Intend planting this spring some fruit trees—cherries, plums and some pears. Would you suggest suitable varieties, also the name of a knotproof cherry?

3. Have a piece of land bad with Canadian thistles. I wish to drain and cultivate quite frequently during early summer, then sow something suitable for fall pasture. Would you recommend rape and crimson clover as good fall pasture for cattle? How is millet, if sown late, for a pasture crop?

4. Last spring seeded five acres with clover alone, intending to plow it down this fall, but the high price of clover seed has made it necessary to let it go another year. If I sowed timothy this spring quite early, might I expect a good catch? **SATISFIED SUBSCRIBER.**

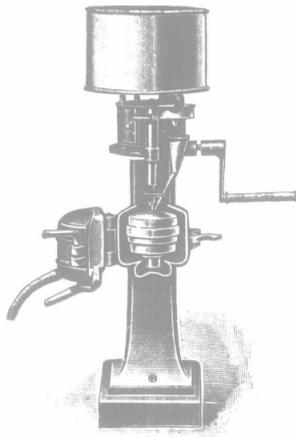
Ans.—1. The trouble is probably occasioned by his teeth, which should be carefully examined by someone who understands a horse's mouth. At from three years and three months to four years, the third molar in each row (a temporary one) is shed, and replaced by a permanent one, and the sixth molar in each row appears. It is not at all uncommon to see a colt between three and a half and four years old become unthrifty and have apparent difficulty in masticating. During the growth of the permanent molars, the fangs or roots of the temporary ones gradually disappear by absorption as the new teeth grow. In normal cases, by the time the new tooth has reached the level of the gums, the fangs of the temporary one have become so absorbed that the crown drops off, but in many cases on account of incomplete absorption this does not occur, and the new tooth continuing to grow forces the temporary one above the level of its fellows, rendering mastication difficult or impossible, and unless the animal be fed on soft food, he will fail in flesh and energy. Whenever unthriftiness, without apparent cause, is noticed in colts of this age (or from two and a half to three years, during which time the first and second temporary molars are displaced by permanent ones), the molars should be carefully examined, and if any of the crowns are not shed, they should be removed with a forceps.

2. Write to the Department of Agriculture, Toronto, Ont., for Bulletin 147, "Fruits Recommended for Planting in Ontario." For East Huron, we should say Montmorency and Early Richmond were about the best varieties of cherries; both are sour, but hardy. English Morello and Orel 25 are fairly good for cooking. Of plums, Bradshaw, Imperial Gage, Lombard and Reine Claude are among the best. Aitken and Cheny are a couple of the Americana group, particularly to be commended on account of their hardiness. Of pears, Summer Doyenne is a small pear, good for dessert purposes, and said to be fairly hardy in Huron County; season July. Giffard is described as first-class for home market, season, early to mid August. Papp's Favorite, season August to September; Bartlett, a reliable standby, season early to mid September, and Flemish Beauty, mid to late September.

3. Rape would be excellent. Crimson clover is not to be recommended. Millet will do, but is not an ideal pasture crop.

4. Fairly good results are sometimes secured from spring seeding with timothy, though at least 8 pounds per acre of clover should be sown at the same time. There are few ways in which a farmer can spite himself worse than by refraining from sowing plenty of clover. Were the seed three times as expensive as at present, the benefits of a reasonably good stand would far outweigh the expenditure. The best way to economize on clover seed is to use more of it.

"The Melotte."



Why we can ship the Melotte on free trial without a signed order.

It is only natural for you to wonder why we are always willing to ship the Melotte on free trial without any obligation to buy.

Well, this is why: The Melotte is so superior to all other cream separators, in every way, that its merits are apparent on sight, and the most inexperienced person would single it out from among the other machines. We know the Melotte, and experience has changed our belief in its superiority into absolute conviction. For this reason we are willing to assume any risk to place it on trial against any other separator, and let the farmer decide for himself.

Send for catalogue and information about free trial offer.

**R. A. LISTER & CO., LIMITED**  
66 Stewart Street, Toronto, Ont.

The Best Sheep Dip is  
**WEST'S**  
Disinfecting Fluid

Non-poisonous, and sure  
Death to Ticks and Lice.  
We offer you one gallon for one month's trial; if satisfactory you pay us \$1.50, if not it will cost you nothing.

The West Chemical Co.,  
125 Queen St., E., Toronto, Can.

**ACTION DEVELOPERS**

For Producing and Improving Action in Horses.



Used by all successful exhibitors and dealers in England.

Illustrated pamphlets, testimonials and prices of patent.  
G. E. GIBSON, OAKHAM, ENGLAND.

For Sale on Easy Terms  
**IMPORTED CLYDESDALE STALLION**  
Rising three years.

J. YANCE, TAYISTOCK, ONTARIO.

**Dr. Bell's Veterinary Medical Wonder**

cures inflammation of lungs, bowels and kidneys. The 40th-century wonder. Agents wanted in every county. Write for terms.

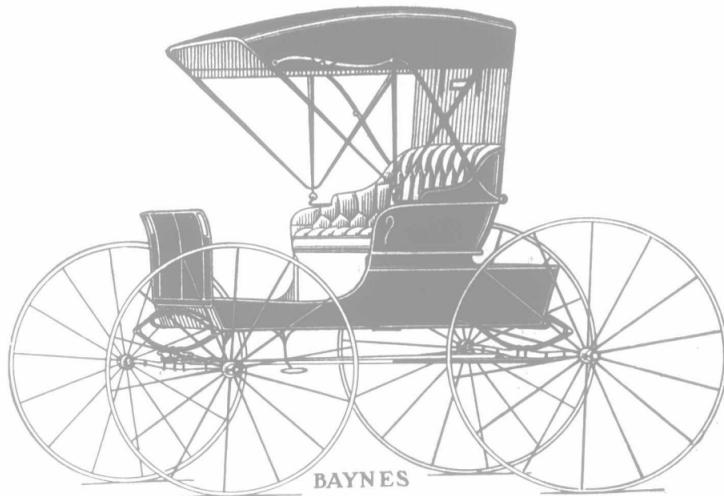
DR. BELL, V. S., KINGSTON, ONT.

**FOR SALE: Hackney Stallion, Wadsworth Squire (imp.)—217—(12182) (708), sired by Garton Duke of Connaught. Dark chestnut, white star, two feet white; 6 years; 15.2; weighs 1,225 pounds. Good foal-getter. Write to Mrs. E. M. Routledge, Georgetown, Que.**

**For Sale—Two good Suffolk Punch Stallions, sired by pure-bred Suffolk Punch stallion Ontario. One brown, five years old; one sorrel, three years old.**

THOS. KNAGGS, Vandecar, Ont.

**WHEN WRITING ADVERTISERS PLEASE MENTION THIS PAPER**



BAYNES  
No. 511

This is our Standard Auto-seat Corning Buggy. Our Auto-Seat is very roomy—and the most comfortable seat on the market.

The back is higher than usual and back and cushion are fitted with springs for easy riding.

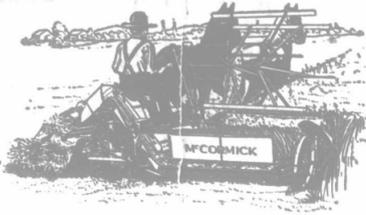
Like all other Baynes Buggies, this Auto-seat Corning is equipped with Baynes Long Distance Axle that will run a year with one oiling.

No. 511 is only one of the many handsome jobs turned out by us for 1908. If your dealer does not handle Baynes Buggies let us know and we will tell you where you can see the spring line.

**THE BAYNES CARRIAGE CO.**  
LIMITED  
Hamilton, Ont.

## THE McCORMICK

**THE BINDER THAT MAKES PROSPEROUS FARMERS**



**HARVESTS GRAIN WITHOUT ANNOYANCE OR DELAY**

If you have a McCormick binder you know you have a right working machine.

There is no question about it. It was among the first successful binders in the field. Today it is called "the standard of its line." Farmers everywhere bear testimony to its good work and durability.

You have no trouble with its knoter. It is exceedingly simple and positive working, having only two moving parts.

The adjustable reel enables you to handle the grain in all conditions—tall, short, down and tangled.

The bundles are squarely butted and tightly bound. The least twine is used and the twine tension handles it so there is no kinking and no breaking.

The binder has a strong main wheel, and an exceedingly strong, solid main frame. Yet the machine is of light draft.

All shafts carrying heavy loads run on roller bearings. There is great range of adjustment everywhere. The draft is low and direct. Machine balances perfectly, no neck weight or side draft. Machine is easily mounted on trucks for transporting.

Binders are made in both right-hand and left-hand, in standard and wide (8-foot) cut.

The McCormick line also includes 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, wagons, sleighs and manure spreaders.

For particulars about binders or any other machine call on local McCormick agents, or write the nearest branch house for catalogs.

Canadian Branch Houses: Calgary, London, Montreal, Hamilton, Regina, St. John, Winnipeg, Ottawa.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, Chicago, U. S. A. (Incorporated)

### GOSSIP.

Three miles from Bronte Station, on the G. T. R., between Toronto and Hamilton, lies Lakeview Stock Farm. As the name implies, the farm is beautifully situated on the shore of Lake Ontario, which it overlooks, and is the home of 60-odd head of high-class Holstein cattle. When completed, the Lakeview farm and buildings will be one of the best and most modernly-equipped dairy farms in the Dominion, and it is the intention of the owners to have it stocked with a herd of Holsteins second to none in America; and the start already made certainly indicates that the object in view will, ere long, be attained, as the price to be paid for the right kind cuts little figure. Already a number of those on hand are in the Record of Merit, with seven-day records of 12 lbs. for two-year-olds, 18 lbs. for three-year-olds, and 24 lbs. for five-year-olds, and very many of them now milking are giving 60 lbs. a day at second calving, testing on an average, 3.05 per cent. At the head of the herd is Count Hengerveld Fayne De Kol, a full-blood brother to the world's four-year-old champion of 1907, Grace Fayne 2nd's Homestead, whose record is 29.16 lbs. butter in seven days. He is sired by Pietertje Hengerveld Count De Kol, who has 71 daughters in the A. R., 25 of whom have records of 20 lbs. and over, two of them over 20 lbs., Blanche Lyons De Kol, 33 lbs., and Frenesta Hengerveld De Kol, 32.26 lbs. Another, De Kol Creamello, 28.13 lbs. butter in seven days, and 119.7 lbs. milk in one day, which is the world's record; he was sired by the great De Kol 2nd's Butter Boy, and his dam was Pietertje Hengerveld, with a milk record of 492.10 lbs., and a butter record of 21.85 lbs. in seven days, and her dam, Netherland Hengerveld, has a record of 26.67 lbs. butter; dam Grace Fayne 2nd, with a seven-day record of 677 lbs. milk, and 26.30 lbs. butter. Her sire, Aaltje Salo 3rd's Tritonio Netherland, has 33 daughters in the A. R., 11 of them with records of 20 lbs. and over, breeding, in richness of producing lines, unsurpassed by that of any bull alive. His lieutenant in service is Sir Daisy Pietertje De Boeur, a son of Sir Pietertje Posch De Boeur, whose dam, Kaantje De Boeur 2nd, has a record of 24.28 lbs., dam Daisy Mechthilde De Kol Pietertje, whose four-year-old record is 18 lbs., and her dam, Daisy Mechthilde, has a three-year-old record of 15.25 lbs. Another bull in service, but who is now for sale, is 3rd Toitilla Posch Johanna, by Sir Pietertje Posch De Boeur, above described, dam Toitilla Posch Johanna, never officially tested, but home-test shows her capable of over 20 lbs., and her dam has a two-year-old butter record of 12.85 lbs. He is now three years old, and has proven a sire of merit, and is easy buying for anyone wanting a richly-bred herd-head. In younger bulls there are several all along about three months of age. Two of them are twins, out of a 20-lb. record cow, and sired by Beauty Cornucopia Lad, whose sire's dam's record is 34.32 lbs., and his dam's record is 10 lbs. as a two-year-old. The sire of the dam of these two young bulls has 33 daughters in the A. R., and her dam has a record of 20 lbs. as a three-year-old. Here are a very desirable pair of young bulls, if being exceedingly richly-bred counts for anything. Then there are three others, sired by Brightest Canary, whose three nearest dams have records that average 27.36 lbs. butter in seven days, and whose milk has all tested over 4 per cent. One of these youngsters is out of an 18-lb. cow; another out of a 20-lb. cow; the other out of a heifer not yet tested, but whose dam has a record of 17 lbs. Still another is out of a two-year-old heifer with a 12-lb. record, whose sire was De Kol Burke, who has 22 daughters in the A. R., one of them with a record of over 30 lbs. This youngster is sired by Witkop De Kol Korndyke Wayne, who has 8 A. R. sisters, and whose sire's dam has a record of 25.77 lbs., and his dam has a record of 22.83 lbs. as a four-year-old, and her dam's record is 20.40 lbs., a royally-bred youngster sure. These young bulls are for sale, and the opportunity of getting so richly-bred ones is seldom presented. There are also for sale a number of high-grade Holsteins that are milking heavily. Address all communications to the manager, W. D. Breckon, Lakeview Farm, Bronte P. O., Ont. Long-distance phone.

## Auction Sale of Canada's Greatest Herd of HEREFORDS, SHORTHORNS, GRADE CATTLE

**Will Be Held at Forest View Farm, May 13, '08**

Close to the town of Forest, Ont., on the main line of the G. T. R., 26 miles east of Sarnia.



This great herd comprises **40 Herefords**—34 females and 6 bulls; 10 good Shorthorns, and 15 Grade Cattle. At the head of the Hereford herd stands the great stock bull, Imperial—2084 Canadian, 160500 American Herdbook—having won 21 first prizes. This great bull is not only a prizewinner, but sire of the junior herd and herd of best four calves, junior champion bull and junior champion female, at Toronto, London and seven other fairs in 1907; also sire of the heifer, Pansy, that won sweepstakes at Guelph in 1906. This is certainly a great record for a herd bull. At the head of the female list is the great show cow, Forest Lady (1437), the grand champion female, any age, at Toronto, London and seven other fairs. This is the heaviest cow in Canada, any beef breed, weighing 2,200 pounds. This is the greatest herd of good stuff, we believe, on either side of the water. Don't fail to attend the sale and get one of the best. Terms of sale: 6 months' credit on furnishing approved joint notes, or 6 per cent. off for cash.

**W. SPARLING,**  
Auctioneer.

**JOHN A. GOVENLOCK**  
Proprietor,  
**FOREST P. O., ONT.**

## Canadian National Horse Show

Fourteenth Annual Renewal

**ST. LAWRENCE ARENA, TORONTO**

Wednesday, Thursday, Friday and Saturday,  
**APRIL 29 and 30, MAY 1 and 2**

ENTRIES CLOSE SATURDAY, APRIL 18TH. Reduced rates on all rail-ways. Return tickets at Single Fare, good going April 29th, and good to return up till Monday, May 4th.

**GEO. W. BEARDMORE,**  
Chairman.

**STEWART HOUSTON,**  
Manager.

**W. J. STARK,**  
Secretary.

SUBSCRIBE FOR "THE FARMER'S ADVOCATE AND HOME MAGAZINE."

## A \$3,000 Stock Book Free

**Contains 183 Large Engravings**

This book cost us over \$3,000 to produce. The cover is a beautiful live stock picture, lithographed in color. The book contains 160 pages, size 6 1/2 x 9 1/4, gives history, description and illustration of the various breeds of horses, cattle, sheep, hogs and poultry. Many stockmen say they would not take five dollars for their copy if they could not get another. The finely illustrated veterinary department will save you hundreds of dollars, as it treats of all the ordinary diseases to which stock are subject and tells you how to cure them.

**Mailed Free Postage Prepaid**  
Write for it at once and answer the following questions:

1st—Name the paper you saw this offer in.  
2nd—How many head of stock do you own?

ADDRESS AT ONCE

**INTERNATIONAL STOCK FOOD CO.**  
TORONTO, CANADA

Sole Manufacturers of

**INTERNATIONAL STOCK FOOD**

**THREE FEEDS FOR ONE CENT**

**INTERNATIONAL STOCK FOOD, FEEDS FOR ONE CENT,** is a purely vegetable **MEDICINAL** preparation composed of roots, herbs, seeds, barks, etc. It is equally good and very profitable to use with horses, colts, cattle, cows, calves, hogs, pigs, sheep or lambs, because it purifies the blood, tones up and permanently strengthens the entire system, keeps them healthy and generally aids digestion and assimilation, so that each animal obtains more nutrition from the grain eaten. In this way it will save you grain and **MAKE YOU LARGE CASH PROFITS.** You don't spend money when you feed **International Stock Food.** You save money because the **GRAIN SAVED** will pay much more than the cost of the **International Stock Food.** Refuse all substitutes and get paying results by using only the genuine **International Stock Food.**

**3 FEEDS FOR ONE CENT**

**Largest Stock Food Factories in the World**

**CASH CAPITAL PAID IN, \$2,000,000**

We Manufacture and Guarantee:

International Stock Food  
International Poultry Food  
International Louse Killer  
International Worm Powder  
International Heave Cure  
International Colic Cure  
International Harness Soap  
International Foot Remedy  
International Hoof Ointment  
International Pheno Chloro (Disinfectant)  
International Compound Absorbent (Spavin Cure)  
International Gall Cure  
International Stock Dip  
International Distemper Cure

Sold on a **CASH GUARANTEE** of Satisfaction by 125,000 Dealers

**Dan Patch Mailed Free**

When you write for Stock Book mentioned above ask for a picture of Dan Patch 1.55, and it will be included free of charge.

**INTERNATIONAL STOCK FOOD CO.**  
38 TORONTO, CANADA

**FOR SALE CHEAP!**

Imp. Coach stallion—a champion. Also young Hackney, grandly bred.

**E. W. Brooks, Stirling, Ont.**

Subscribe for "Farmer's Advocate"

Cures Spavins

The world wide success of Kendall's Spavin Cure has been won because this remedy can and does—  
—cure Bog and Bone Spavin, Curbs, Splint, Ringbone, Bony Growths, Swellings and Lameness.

MEAFORD, ONT., May 22 '06.  
"I used Kendall's Spavin Cure on a Bog Spavin, which cured it completely." A. G. MASON.

Price \$1-6 for \$5. Accept no substitute. The great book—"Treatise on the Horse"—free from dealers or  
R. S. J. KENDALL CO., Ensburg Falls, Vermont, U.S.A.

Seldom See

a big knee like this, but your horse may have a bunch of, bruise on his Ankle, Hock, Stifle, Knee or Throat.

**ABSORBINE**

will clean them off without laying the horse up. No blister, no hair gone. \$2.00 per bottle, delivered. Book 8-C free. ABSORBINE, JR., for mankind, \$1.00. Removes Soft Bunches, Curbs, Varicose Veins, Varicocele, Hydrocele, Erupted Muscles or Ligaments, Enlarged Glands. Always Pain. Mfd. only by  
W. J. WILHELM, P.O. 7, 78 Monmouth St., Springfield, Mass.  
Canadian Agents: LITTLE & CO., Montreal.

Every breeder that has a mare in foal should use . . .

Wilhelm's Brood Mare Special

insuring a good strong, healthy foal, requiring no nursing. Send for testimonials. We authorize dealers to refund the price if the result is not as guaranteed. Price, \$1.50 per package. Send either Postal Note or Money Order.

WILHELM & MOORE, Shakespeare, Ont.  
J. WILHELM, V.S. G. A. MOORE, Manager.  
Specialist on Generation.

BICKMORE'S GALL CURE

The standard reliable remedy for Galls, Scrotchies, Cracks, Wire Cuts and all similar sores on animals. Sold by dealers everywhere. Money refunded if it fails. Sample and Bickmore's new horse book mailed for 10 cents. Write today.  
WINGATE CHEMICAL CO., LTD., Canadian Distributors, 645 NOTRE DAME ST., W. MONTREAL, CANADA

Shetland, Welsh and Iceland Ponies

Present Offering: Piebald gelding, rising 2 years, about 13 hands. Bay stallion, rising 2 years, about 12 1/2 hands. These two are driving nicely now. Welsh filly, rising 1 year, dark grey, should make, when matured, a pony about 11 hands. Pair of Shetland mares, bred, and others.

E. DYMENT, Copetown, Ont.  
Gilead's Spring Farm

MR A. I. HICKMAN,

Court Lodge, Egerton, Kent, England, exports pedigree live stock of every description to all parts of the world. Exported during 1907 more Shetland ponies, more Romney Marsh sheep, and more champion Oxford Downs than any other breeder or exporter, besides large numbers of other breeds of horses, ponies, cattle, sheep and pigs. Correspondence invited. Highest references given.

CLYDESDALES

One 1750-lb. 8-year-old mare in foal. One 5-year-old mare and one 3-year-old mare.

SHORTHORNS

Two right good yearling bulls left yet, and a lot of heifers cheap. Write, or come and see them.

JAMES McARTHUR, Gobles, Ontario.

FOR SALE: CLYDESDALE STALLION rising 3 years this spring. Grandson of Imp. Bold Boy. His sire full brother to a world-champion show horse at Chicago. A light chestnut. White face. Well feathered. Good mane and tail. Stands 16 hands. Good block and splendid action. Plenty of good flat bone. Was bred to 13 mares last season: 9 or 10 have proved in foal. The property of the late Henry K. Schmidt. Must be sold. For further particulars apply to GEO. MOORE or J. H. ENGLE, V. S., Waterloo, Ont.

Clydesdales, Shorthorns and Cotswolds—For richest bred and choicest individuals of above breeds, write me. My new Cotswold and Clydesdale importation will arrive early in the season.  
G. C. ROSS, Jarvis, Ont., P. O. and Sta.

WHEN WRITING ADVERTISERS PLEASE MENTION THIS PAPER

QUESTIONS AND ANSWERS. Miscellaneous.

COLLECTING RENT.

A rented his farm to B, and not living near it, and unknown to A, B put C on the farm. He put crop in, and took harvest off, and sold all grain and hay, then left the farm about October, 1907, and while rent due March 1st, 1908, B refused to pay it, and tells A to write to C for rent. A thinks he has nothing to do with C. In case A wrote to C for rent, as B advised him, would it leave an open door for B to get out of paying the rent? E. M. Ontario.

Ans.—Yes. A should look solely to B for payment.

QUANTITY OF BEANS TO SOW PER ACRE.

Kindly tell me the proper amount of beans to be sown per acre, as sown with a common hoe drill, in rows 28 inches apart, and how many beans to the foot of row, roughly speaking, would that be? R. H. R.

Ans.—Of the common pea bean, sow about three pecks per acre, and of larger-seeded varieties, such as Yellow Eye and Red Kidney, about one and a half bushels per acre. An ordinary eleven-hoe grain drill, with second, sixth and tenth tubes running (the wheel following back in its own track), if set at about 3 1/2 bushels per acre, will sow about 3 pecks.

MANURE FOR STRAW.

A rents a piece of land, adjoining A's farm, from B. A is to take all crop onto his own place, but is to return manure. Is there any rule that A should go by as all manures are in one pile? A was just to return manure for straw, not for hay. PLEASED SUBSCRIBER.

Ans.—From the above statement we are unable to satisfy ourselves concerning the nature of the case, nor have we knowledge of any precedent bearing on it, unless it be the old livery-stable rule of a load of manure in exchange for a load of straw, the farmer, of course, doing the hauling both ways. In a year like the present, when straw commands such a high price, this might be regarded as scarcely sufficient return per load of straw. If any reader has suggestions to offer, we will cheerfully find space for them.

TREATMENT OF OLD ORCHARD.

I have an old orchard that I have been cultivating and giving frequent dressing with barnyard manure for several years, and I wish to seed it down this spring as it is difficult to keep it cultivated amongst the trees that are so low and large. I would like to get it into grass that would be good for at least ten years. I purpose seeding without a nurse crop.

1. Would it do to seed it to alfalfa clover, and cut for hay or green feed?
2. What would be the best grasses to use to pasture sheep on it, and would you recommend pasturing sheep in an orchard?

Ans.—If the orchard is worth saving at all, it is worth making an effort to give it good cultivation rather than seed it down for permanent pasture. If you wish to grow pasture, it would be better to take the orchard out entirely, or grow pasture elsewhere. No orchard seeded down and kept in permanent pasture would last long, and give satisfactory results. The prices which have been realized for apples the past few years, particularly where the crop has been handled through co-operative associations, well warrants orchards receiving thorough cultivation and seeding down only for the growth of cover crops during the middle of summer, after cultivation has ceased for the season. Alfalfa would be one of the most trying crops that could be put in the orchard, if it is to be left as a permanent crop, from the fact that the roots go so deeply that they would rob the land of moisture which should go to the trees to develop good-sized fruit. It is not safe, as a rule, to allow sheep to pasture in an orchard, from the fact that if the orchard is kept properly cultivated there would be but little pasture in it, except around the fences, and sheep are then likely to girdle the bark of the trees and do serious damage. H. I. HUTT.

O. A. C.

Gombault's Caustic Balsam

The World's Greatest and Surest

Veterinary Remedy

HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Caustery or Firing. Invaluable as a CURE for

FOUNDER, WIND PUFFS, THRUSH, DIPHTHERIA, SKIN DISEASES, RINGBONE, PINK EYE, SWEENEY, BONY TUMORS, LAMENESS FROM SPAVIN, QUARTER CRACKS, SCRATCHES, POLL EVIL, PARASITES.

REMOVES BUNCHES or BLEMISHES, SPLINTS, CAPPED HOCK, STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

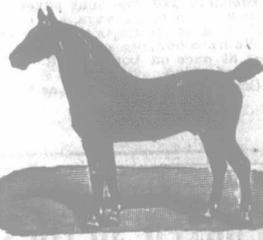
THE BEST FOR BLISTERING.

I have used GOMBAULT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success.  
CHAS. BOTT, Manager.  
Mayfield Stud Farm, Leesburg, Va.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

The Accepted Standard VETERINARY REMEDY

Always Reliable. Sure in Results.



None genuine without the signature of  
The Lawrence-Williams Co.  
Sole Importers & Proprietors for the  
U.S. & CANADA. CLEVELAND, O.

I have used GOMBAULT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success.  
CHAS. BOTT, Manager.  
Mayfield Stud Farm, Leesburg, Va.

CURED CURB WITH TWO APPLICATIONS.

Have used your GOMBAULT'S CAUSTIC BALSAM to cure curb. I blistered it twice, and there is no sign of it any more. The horse is as good as ever.—DAN SCHWEL, Swanton, Ill.

Sole Agents for the United States and Canada.  
**The Lawrence-Williams Co.**  
TORONTO, ONT. CLEVELAND, OHIO.

Imported Shires!

From the famous breeding farms of

**JOHN CHAMBERS & SONS,**  
Holdenby, Northampton, England.



SHIRE.

Sixty head have been sold by me in Ontario alone during the past year. The quality of the stock may be judged from the fact that while we have nothing forced for exhibition purposes these horses won in the show-rooms at Toronto, The Western Fair, London; The St. Thomas Horse Show, and other places. A fresh consignment of mares and fillies in foal, and stallions ready for service, among them several handsome two-year-olds, will be ready for inspection and sale at my barns, St. Thomas, Ont., about April 10th. We show the goods, and sell at reasonable prices. Our terms are reasonable. Correspondence solicited.  
C. K. GEARY, St. Thomas, Ont., Agent for Canada and the United States.

IMPORTED CLYDESDALES

Up to over a ton in weight, with the very richest of breeding and the best of quality. I think no better shipment of stallions ever left Scotland. I have also nine fillies, without doubt the best lot in Canada. All will be sold cheap and on terms to suit. Long-distance 'phone.  
GEO. G. STEWART, HOWICK, QUE.

2 IMPORTED CLYDESDALE FILLIES

Sired by Prince Alexander and Macgregor's champion, recorded in Clydesdale Stud-book of Canada. Terms and prices reasonable.  
Robt. McEwen, Byron, Ont. London Ry. Station.

Imp. Clydesdales (Stallions and Fillies), Hackneys, Welsh Ponies.

I have now on hand Clydesdale stallions and fillies—Scotland prizewinners and champions; Hackney fillies and Hackney pony; also Welsh ponies. There are no better animals, nor no better bred ones, than I can show. Will be sold cheap and on favorable terms. A. AITCHISON, QUELPH, ONT., P. O. & STATION.

SIMCOE LODGE CLYDESDALES

Our stable of imported and Canadian-bred Clydesdale stallions and fillies was never so strong in show stuff as now, although we have had some very strong lots. Call and see what we have before buying elsewhere. HODGKINSON & TISDALE, BEAVERTON, ONT., G. T. & C. N. R. Long-distance 'phone.

OAK PARK STOCK FARM HACKNEYS!

Four imported and home-bred stallions for sale. Ten imported and home-bred mares for sale. Among these are prizewinners at Toronto, Chicago and New York. Prices reasonable. Visitors always welcome to inspect stock. JAS. J. BROWN, Manager, BRANTFORD, CAN.

Imported Clydesdales

I have on hand for sale 7 choice Imp. Clydesdale mares 3 and 4 years old. All in foal. They have size, quality and grand action. An extra good lot. Also the 6-year-old Imp. stallion, Fiscal Member (6149), a horse of great size, grand quality, and a sure getter. All these are richly bred. Write for particulars.  
R. M. HOLTEY Manchester, Ont., P. O. and Station. Long-distance 'phone.

**THE UNION STOCK-YARDS COMPANY, Ltd.**  
**HORSE EXCHANGE**  
 KEELÉ ST., - - TORONTO JUNCTION

Auction Sales of  
 Horses, Carriages and  
 Harness every  
 Monday and Wednesday.  
 Private Sales every  
 day.



Come and see this new  
 Horse Exchange,  
 It will interest you, also  
 the Quarter-mile Track  
 for showing  
 and exercising

The Directors of the above Company have not spared anything in the building of this new Horse Exchange. The stables, which are built of cement and brick, will stall between 200 and 300 head of horses and are considered by judges, who have seen them, to be the most sanitary they have yet seen.

We have sold on an average of 100 horses per week since the opening of this great horse market, and now that the success of the horse business is assured, we are in a position to handle Breeders' Stock Sales of all kinds, Cattle, Sheep, and Hogs.

Breeders will find that advertising from a central place like Toronto will be advantageous in many ways, as this is unquestionably the most complete market of its kind in America for both buyer and seller.

We have our own railway chutes, which are the finest, and can load any number of cars at once on both G.T.R. and C.P.R. No charge for loading or unloading stock of any kind.

Correspondence solicited as to terms, etc.

**HERBERT SMITH, Manager.**  
 (Late Grand's Repository).

**IMPORTED CLYDESDALES AND HACKNEYS**



Stallions and mares,  
 both breeds, repre-  
 senting the best  
 blood of England  
 and Scotland, com-  
 bining size, quality  
 and faultless action.  
 Stallions are all  
 guaranteed sure foal-  
 getters, or replaced  
 by one of equal  
 value. All will be sold on the long-time payment  
 plan. Stallions insured against risks of all kinds. If in need of something choice  
 of the above breeds, write or wire for full particulars and catalogues.



**DUGALD ROSS, Streetsville, Ontario.**

**For Sale: 7 Imp. Clydesdale Stallions**

Also One Percheron Stallion. I will sell the above at low-down prices, as they must be sold this spring. Please write me for prices.

**O. SORBY, Guelph, Ont.**

**Graham - Renfrew Co.'s**  
**CLYDESDALES and HACKNEYS.**

Our Clydes now on hand are all prizewinners. Their breeding is gilt-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-stoppers and carriage horses. Yonge street cars pass the door every hour. Phone North 4488.

**GRAHAM-RENFREW CO., LTD., Bedford Park, Ont.**

**CLYDESDALE STALLIONS**

Our new importation has just landed. An exceedingly good lot. Some extra big fellows. They may be seen at our stables, Fraser House, London. Call and see them, or write

**MESSRS. DALGETY BROS., GLENCOE, ONT.**

**25 Imported Clydesdale Stallions and Fillies 25**

Two Clyde stallions, 1 Hackney stallion, over 30 Clyde mares and fillies, from 1 to 5 years of age. Many high-class show animals among this lot. Many winners in Scotland among them. They have size, quality, style, action and breeding. Come and see them. **GEO. A. BRODIE, Bethesda, Ont., P. O., Stouffville and Gormley Stations.**

**IMPORTED CLYDESDALES!** 9 stallions, 1 to 6 years of age; 10 fillies, 1 to 3 years of age, several of them in foal; 1 two-year-old Hackney stallion; 1 two-year-old Shire stallion; 3 Percheron stallions, 3 years old. All are selected animals, bred in the purple. Will be sold cheap and on terms to suit. **T. D. ELLIOTT, BOLTON, ONT.** Phone.

**IMP. CLYDESDALE STALLIONS AND FILLIES.**—Our new importation of stallions and fillies are the best we could select in Scotland, particularly well bred, with the size, smoothness and quality that Canadians admire. Show-ring stuff. Come and see them. Will sell on terms to suit. **JOHN A. BOAG & SON, Queensville P. O., Ont., Newmarket Sta., G. T. R.** Telegraph and telephone one-half mile from farm. Metropolitan Street Ry. from Toronto crosses the farm.

**QUESTIONS AND ANSWERS.**  
 Miscellaneous.

**NOVA SCOTIA SEED OATS.**

A merchant brings in seed oats from Nova Scotia. Would it be wise for the farmers of Middlesex to sow those oats and expect as good a yield as he would get from Ontario seed? **R. M.**

Ans.—This is a question on which those who are best informed are most reluctant to tender advice. Better oats are grown in Nova Scotia in many cases than in Ontario. But whether seed from that soil and climate would do better or worse in Ontario than home-grown seed is a question that can be settled only by experiment. In view of the inferior quality of the oats harvested in this Province last summer, it is probable that this spring it will prove advantageous to use seed from the Lower Provinces.

**SUMMER PASTURE FOR HORSES.**

Have seen in "The Farmer's Advocate" the summer-pasture mixture of 1½ bushels oats, 30 lbs. Early Amber sugar cane, and 7 lbs. clover seed for cows. Would you advise the sowing of this for the horses to be turned on at night, and for a mare and colt when not working? Our pasture is timothy sod, which, of course, is not good after July 1st, and would like to get something for the horses all summer. **READER.**

Ans.—The oats and the clover would be all right, but we are not so sure about the sugar cane being very suitable for horses. In a bulletin on "Sorghum," by the United States Department of Agriculture, we find a general statement to the effect that it makes good pasture for all classes of stock, but there is no specific mention of horses. There is nothing like experimenting a little on one's own account. Try a small piece of the above mixture, and, beside it, a strip of millet, and also a mixture of oats and peas, sown the latter part of May. In this way some helpful information may be obtained.

**CABBAGE MAGGOT—ANTS AND FLEAS ON GARDEN HUCKLEBERRIES.**

1. I have long been an interested reader of your valuable paper, and have found it helpful in many ways, and I wish you success. Now, I should like some information regarding cauliflower plants. I have found it very difficult to get any to live after they are large enough to transplant. On examination, there is a small, white grub in the stem, just where the leaves commence.

2. I should, also, like to know of a remedy to keep ground fleas and ants off garden huckleberries. **W. M.**

Ans.—1. The trouble is the cabbage maggot. A small, slender fly, resembling the house fly, lays its eggs near the crown of the plant. These give rise to small worms that bore into the root and feed upon its substance. The best means of coping with it is prevention, which consists in placing about the plant, when transplanting, a piece of tar paper about three inches square, split from the center to one side so that it may be put around the plant and pressed into the ground. The creosote in the tar paper usually prevents the flies from laying their eggs upon the cabbage or cauliflower. The disks are made very easily with a punch. Another method which Dr. Fletcher says has given good results at Ottawa, is applied about the last of June or first of July, when the effects of the maggot become apparent. Mix in a few quarts of hot water, two ounces of hellebore and two ounces of insect powder. Add enough cold water to make an ordinary pailful. Draw the earth away from the root of the cauliflower or cabbage plant, treating all, whether affected or not, and pour in a cupful of the decoction. The poison from the insect powder kills any of the maggots that are there around the outside edge of the cabbage or in the soil, and the mixture applied at that time gives the plant a push forward, and it will overcome the effects of the maggot.

2. We fear not much can be done, except to destroy the nests of the ants. If any reader has a practical suggestion to offer, we shall be glad to have it.

**Thrifty Calves**

A calf which won't eat means a steer which won't fat. Appetite and good digestion are essential at start and at finish. If a calf is dainty, or does not make satisfactory growth, give a very little of



**DR HESS STOCK FOOD**

In the mess twice a day. Dr. Hess Stock Food (the prescription of Dr. Hess M.D., D.V.S.) is a tonic preparation which corrects indigestion, makes good blood and cleanses the system of poisonous matter. The ingredients used in it are endorsed by leading medical authorities like Professors Quitman, Winslow and Finley Dun Helpshogs and steers to fat quickly, gives appetite for roughage, and makes cows give an abundance of rich milk.

**SOLD ON A WRITTEN GUARANTEE.**

Costs but a penny a day for a horse, cow or steer.

**100 lbs. \$7.00; 25-lb. pail \$2.00**

Smaller quantities at a slight advance. Duty paid.

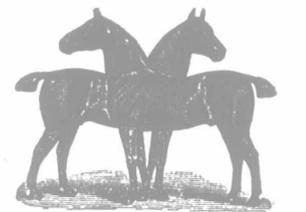
Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal compound, and this paper is back of the guarantee.

If your dealer cannot supply you, we will. **DR. HESS & CLARK, Ashland, Ohio, U. S. A.**

Also Manufacturers of Dr. Hess Poultry Pan-acea and Instant Loose Killer.

**THE LAFAYETTE STOCK FARM**

**J. CROUCH & SON, PROPS.,**  
**LaFayette, Ind.**



Largest importers in America of Percheron, Belgian and German Coach stallions and mares. The three popular breeds. The States have about discarded all breeds of draft horses except the Percheron and Belgian. They are low down, blocky shaped, clean legs, cuppy foot and tough, and can go over rocky roads without shoes; are close made, long ribbed, and live on half the food that the leggy, shorty ribbed, big Roman nose kind do. They mature at three years old. Long time to responsible buyers. Guarantee the best. Prices from \$700 up to \$9,200.



**ARTIFICIAL MARE IMPREGNATORS**  
 For getting in foal from 1 to 6 mares from one service of a stallion or jack, \$3.50 to \$6.00. Safety Impregnating Outfit, especially adapted for getting in foal so-called barren and irregular breeders, \$7.50. All goods prepaid and guaranteed. Write for Stallion Goods Catalog.

**CRITTENDEN & CO., Dept. 38, Cleveland, Ohio, U.S.A.**

**Clydesdale Stallion** (registered) [5433], High-land Pioneer, for sale; rising 4 years old, from imp. stock, with four registered dams; stands 17 hands; weight, 1,700 lbs.; color, rich dapple bay, white strip on face and three white feet. Apply to **JOHN D. MORRISON, Argyle P.O., Ont.**

**Imported Clyde Stallions and Fillies** For Sale, sired by Marcellus and Prince Alexander; one home-bred stallion rising two years, black, imported bred. **ALEX. McCREGOR, Uxbridge, Ont.**

**For Sale: Imported Shire Stallion,** Eton Harold (22347), foaled 1903. Successful stock getter. For price and pedigree write: **JAMES BARONS, BELMONT, ONT.**

**WHEN WRITING ADVERTISERS PLEASE MENTION THIS PAPER**

# DON'T STOP to ask your neighbors. Lift the load yourself with THE BURR SELF-LOCKING TACKLE BLOCK.

Can be used in any position and lock securely. The heavier the load, the tighter it locks. Never destroys the rope in locking. For butchering, stretching wire fences, lifting wagon-boxes, sick or injured animals, etc., it is indispensable to farmers. Saves labor of two or three men. 500 to 5000 pounds capacity. Ask dealers or write **LEWIS BROS., Ltd., Montreal, Can.**

## YOU WANT

a hatcher that does not require watching; a hatcher in which the heat is perfectly, automatically regulated.



## THE MODEL

contains the most perfect heat controller in the world—strong, yet active, sensitive, yet positive—perfect in action.

The Patent Office has decided in my favor in the interference suit on this perfect-acting regulator. The Model Corrugated Leaf Compound Thermostat.



This Thermostat has three corrugations in each leaf, is exceedingly strong and rigid; is not easily damaged, and is so positive in action that the entire movement given off by the different co-efficient of expansion between the two metals of which it is made is transmitted to the controlling device without any loss of movement.

The Model Incubator gives a perfect heat control, which stimulates and holds the germ development uniformly constant and normal, as under a hen. This wonderful hatcher has almost a perfect balance in ventilation and humidity, and supplies all the vitalizing principles found under the incubating hen. The Model Incubators and Brooders are used on the biggest money-making commercial poultry plants in the world. The Model Double Indoor Brooder is just what you want for winter work. Broiler men pronounce it the most successful rearing yet produced. At the Model Farm, where we raised over 80,000 birds the past season, the Model Double Indoor Brooder did the best winter work. Buy your incubators and brooders of the man who knows how to hatch and raise poultry, who is doing it successfully on a commercial basis, and who can help you to be successful. Your success is my success. Write for my printed matter.

Indorsed and used by more Dominion Government Colleges and Stations than the whole of our competitors combined. We make this statement in no boasting spirit, but simply stating facts—a word to the wise is sufficient. The Ontario College, Guelph; The Dominion College, Ottawa; Agricultural College, Truro, N. S.; Macdonald Institute, Ste. Anne de Belleville, Que.; Government Experimental Stations, Bowmanville, Ont.; Bondville, Que.; Andover, N. B.; Chicoutimi, Que.; Union River Bridge, P. E. I.; Experimental Station, Edmonton, Alta.

### CHAS. A. CYPHERS,

President Model Incubator Company, Limited,

C. J. DANIELS, Mgr. River St., Toronto, Ont., Canada.

## For Sale: Rival Duke, Imported English Shire Stallion

8 years old. Guaranteed sure foal getter. This horse is one of the best in Canada. Fit for the show-ring. Also one-year-old colt, from imported stock. Also imported mare in foal. We are retiring from horse business, and will sell for what they are worth. Send for prices, or will exchange for registered Holstein cattle.

H. E. GEORGE, CRAMPTON, ONT.

## Largest Importation of Clydesdales, Hackneys and Percherons of the Year.



My latest importation has just arrived home. I have now on hand for sale: 25 Clydesdale stallions from 1 to 5 years of age; 25 Clydesdale fillies from 1 to 4 years of age; 12 Hackney stallions from 2 to 8 years of age; 12 Hackney fillies, all young; and 4 Percheron stallions 3 and 4 years of age. A total of 73 head, with size, quality and action, and bred in the purple. Largest selection in Canada. Will be sold right, and on terms to suit.

T. H. HASSARD, MILLBROOK, ONT.

## CLYDESDALES



At Columbus, Ont., the home of the winners, this year's importation just arrived. The pick of Scotland's best. For size, style, conformation, quality and royal breeding, they eclipse any former importation we ever made. Look them up in our barn on Exhibition Grounds. Over 30 head to select from.

SMITH & RICHARDSON, COLUMBUS, ONTARIO.

## Shires, Shorthorns and Lincolns.

At present we are offering a very choice consignment of imported stallions, mares and fillies received from the great Shire stud of R. Moore & Sons, Beeston Fields, Nottingham, England. They are a grand lot, and will be sold at right prices.

In Shorthorns we have a number of choice young bulls, three of them show animals; also an excellent lot of females—all ages.

John Gardhouse & Sons, Highfield, Ont. Toronto, 14 miles. Weston, 3 1/2 miles.



Long-distance phone.

### When Writing Advertisers Please Mention this Paper.

## GOSSIP.

A correspondent of an English exchange reports that a ewe in his flock, on March 1st, gave birth to a strong, healthy lamb, and on March 16th produced another. The first lamb is perfectly white, while the second has black head and legs. A Shropshire ram had been running with the flock, while the mother of the lambs was a small, horned ewe.

Mr. George Bruce, formerly tenant of Heatherwick, in Aberdeenshire, died recently in his 80th year. He was a contemporary and personal friend of the late Amos Cruickshank. The Heatherwick cattle were always popular, and it was only a year ago that Mr. Duthie, at Perth, paid 1,000 guineas for Achilles, from the herd. Two or three years ago, Mr. Bruce retired from farming, and was succeeded by his son, Mr. Robert Bruce, who is promising to maintain to the full the traditions of the farm as a center of Shorthorn interest.

Mr. Neil Smith, Brampton, Ont., recently bought from Mr. James Picken, Torrs, Kirkcudbright, three powerful, well-ribbed, thick Clydesdale stallions, got respectively by the big, grand horse, Imperialist, the Cawdor-cup champion, Revelanta, and Mr. Kerr's great premium horse, Lothian Again (11804). These horses are out of mares of superior breeding, one being Lady Afton (16890), by the prize horse, Le Beau, and the second a grandly-bred mare, by Darnley's Hero (5697). Mr. Smith has for several years past got solid big horses from Mr. Picken, which have proved highly profitable in Canada. These are likely to sustain the reputation so formed.

To those not brought directly in contact with the practice of breeders, by their connection with the herd and flock books of the various breeds of improved live stock, it may seem a little singular that there should be any necessity for urging upon those who grow pedigreed stock the importance of keeping full and complete private herdbooks. It would appear that if a man were sufficiently interested in a breed to handle, mate and manage it as it should be managed, he would find a pleasure in a well-kept herdbook containing the fullest details in regard to his flock or herd. Nevertheless, it is a fact that many breeders are careless in this respect and rely on loose memoranda for some things, and on memory alone for others that should always find a place in a carefully and systematically-kept private herdbook.

There are a great many breeders who do this, and who are as careful and as prompt in keeping up the private herdbook as is the merchant who holds himself prepared at all times to go into court, if necessary, and swear to his books of original entry; but there are a great many who do not.

No breeder should rely on either memory or loose memoranda. Every breeder should keep a service-book that should be written, as books of original entry in trade are required to be written — at the time the transaction takes place. He should keep, besides a herdbook that will contain every material fact in the life-history of every member of the herd, and it would be well if it contained every interesting fact as well as those that are at the time deemed material. These details should be written up as the facts occur, while they are perfectly fresh in the mind. They should be kept in permanent form so that they may all be susceptible of proof, even after the lapse of many years, if need be. An accurate, well-kept herdbook saves the breeder lots of trouble when he comes to record, and is a source of satisfaction in every way.

All breeders, young or old, should keep, carefully and systematically, private herdbooks that will record, immediately and permanently, all the facts that are material to the accuracy and validity of the pedigrees they propose to sell along with the animals they offer for sale.

## 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.

## Brown Swiss Cattle FRENCH-CANADIAN HORSES.

We are offering for sale cattle of both sexes and almost any age; the greatest dual-purpose breed alive. Horses of all ages. Stallions, mares and fillies. The best stud in Quebec. Write us for prices. We represent exactly as the animal is. O. E. STANDISH, Ayr's OHT P. O., Tracbarthe Farm, Quebec.

## Aberdeen- Angus Cattle

Present offering: Twenty good breeding cows, yearling heifers, good sappy heifer calves; also some very promising bull calves, the get of Onward and Protector bred. In car lots or singly. Come and see them, or write and state what you want. Satisfaction guaranteed. ARTHUR F. O'NEIL, Maple Grove, Ont., Middlesex Co.

## ABERDEEN - ANGUS

For sale, 50 head to pick from, males or females by imported sire, Drumbo station. WALTER HALL, Washington, Ontario.

## Sunnyside Herefords

We have some choice females for sale — all ages — of the right sort; also a few young bulls fit for service. Correspond with us. We can please you. J. A. LOYRING, Coldwater, Ont., F. O. and Station.

## Herefords

Choice young heifers, and cows with calves at foot and bred again, for sale. Thomas Skippon, Hyde Park, Ont.

## Hyde Park Herefords

Very heavy milkers; stock bull and breeding cows all descendants of Imp. Beauty, by Snowball. No better dairy-bred Shorthorns in Canada, and few better individuals. For sale: Seven bulls from 6 to 19 months of age, six heifers from 6 months to 2 years. D. BROWN, Ayr P.O. and Sta., Ont.

## Brownlee Shorthorns

Am now offering 2 grand ones from Scottish Peer (Imp.). Will make show animals. Also Leicester sheep. A number of young breeding ewes to sell. JAS. SWELL, Gilmerton, Ont.

## YOUNG SHORTHORN BULLS!

DELATED THE MEALS.

A weary guest at a small and not very clean country inn was repeatedly called, the morning after his arrival, by the colored man-of-all-work.

"See here," he finally burst forth, "how many times have I told you I don't want to be called? I want to sleep!"

"I know, suh, but day's got to hab de sheets, anyhow. It's almos' 8 o'clock, an' dey's waitin' fo' the table-clof."

**Black Watch** Remarkable for richness and pleasing flavor. The big black plug chewing tobacco.

2267

## LIVER COMPLAINT.

The liver is the largest gland in the body; its office is to take from the blood the properties which form bile. When the liver is torpid and inflamed it cannot furnish bile to the bowels, causing them to become bound and costive. The symptoms are a feeling of fulness or weight in the right side, and shooting pains in the same region, pains between the shoulders, yellowness of the skin and eyes, bowels irregular, coated tongue, bad taste in the morning, etc.

## MILBURN'S LAXA-LIVER PILLS

are pleasant and easy to take, do not grip, weaken or sicken, never fail in their effects, and are by far the safest and quickest remedy for all diseases or disorders of the liver.

Price 25 cents, or 5 bottles for \$1.00, all dealers or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.



### NOTED IMP. BULL, DERBY, FOR SALE.

Having several of Derby's heifers now ready to breed, we have decided to sell him. He is as active as ever, and has kept his conformation well. His breeding and ability need no comment. W. J. SEAMAN & SON, Box 556, Owen Sound, Ont.

J. & W. Russell, Richmond Hill, Ont.



are now offering very cheap, for quick sale, 8 yearling bulls, bred from their winning strains of world-renowned Shorthorns. Also about 30 heifers. First come, first choice.

Electric Cars from Toronto pass the gate every 2 hours.

### Maple Home Shorthorns!



Our present offering is several very choice and richly bred one and two year old heifers, and three yearling bulls. A way above the average. Pure Scotch and Scotch topped.

A. D. SCHMIDT & SONS  
Elmira, Ont.

### CEDARDALE SHORTHORNS



Owing to scarcity of feed, am offering at specially low figures for quick sale: 17 heifers, one to three years old, 4 young bulls from six months to one year old, 16 cows, in calf or with calf at foot. Both beef and deep-milking strains.

T. S. Sproule, M.P.,  
Maple Dale, Ont.

### Hawthorn Herd of Deep-milking SHORTHORNS



6 YOUNG BULLS,  
by Aberdeen Hero, Imp., =28840=. Also females all ages.

Wm. Grainger & Son,  
LONDESBORO P. O. Ont.



Maple Grove SHORTHORNS.  
6 bulls and 2 heifers for sale. Bred from imp. and home-bred stock. A number of young cows safe in calf. Present stock bull, Starry Morning. C. D. WAGAR, Enterprise, Ont. Sta. & P. O.

### Athelstane Shorthorns!

Three choice bulls from 9 to 12 months and heifers from 1 to 3 years; low-down, thick fleshed sort, of families: Rosewood, Butterfly, Rosaling, and Countess, and mostly sired by the Bruce Mayflower bull, Star Prince =5390=. Prices very reasonable. WM. WALDIE, Box 324, Stratford, Ont.

### SHORTHORN BULL OFFERED

Dark roan: real good head and horns; excellent back and quarters; capital legs, properly set; and attractive appearance. Year old April 2nd. He is a Strathallan, by Golden Count =44787=. and we think is good enough to fit for showing in junior yearling class at Toronto, and head any good herd. J. & D. I. CAMPBELL, Fairview Farm, Woodville, Ont.

GREENOCK'S SHORTHORNS. — Imp. Protector at head of herd. Imp. and Canadian-bred females, Scotch and Scotch-topped. For sale: 7 bulls from 4 to 12 months of age, two of them out of Imp. dams; also some choice females. Will be sold at easy prices. Write or come and see them. JOHN McFARLANE, Dutton P. O., Ont. P. M. and M. C. Railways.

## QUESTIONS AND ANSWERS. Miscellaneous.

### SICK COW.

Cow, newly calved, does not eat her feed, seems slightly bloated, stands with her back hollowed in, and looks dull; does not seem to be costive. She is getting hay damaged by storm in the winter, and is wet. What is the matter?

SUBSCRIBER.

Ans.—The symptoms are those of indigestion, probably caused by eating the damaged hay. Purge her with one pound of Epsom salts and an ounce of ginger, given in a quart of warm water as a drench. Follow up with one dram each of sulphate of iron, gentian, ginger and nuxvomica, three times daily, as a drench in gruel, for three days. Feed lightly on good clover hay, roots, dry bran, and a little oil-cake meal. Add to her drinking water about one-sixth of its quantity of lime water. If she will not eat, drench her with oatmeal gruel.

### MILLET FODDER AND SEED.

As your valuable paper comes to our house every week, I wish to ask a few questions. We are thinking of sowing millet.

1. Will it do better on fall or spring plowing?
2. Can I seed down clover and timothy with millet?
3. Is millet seed good feed for any kind of stock?
4. If so, how should it be fed, ground, alone, or mixed with other grain?
5. What is the feeding value compared with oats or barley?
6. Is millet straw good feed for stock?
7. Is there any particular variety which produces more seed than another?

R. J. L.

Ans.—1. Heavy land would likely be better fall-plowed; on other soils, it is immaterial. If sown on a sod field, we should prefer to plow the latter part of May, and work up to a fine seed-bed as for corn. A well-pulverized seed-bed is important.

2. Owing to the late date at which millet should be sown (in Ontario, June is the best month), and its gramineous character of growth, we should not expect successful results from an attempt to seed down with it.

3, 4 and 5. For poultry, millet seed serves excellently as part of the ration, particularly useful to induce exercise among confined fowls when scattered in litter. When finely ground, millet-seed meal has been fed to colts and other young stock with fairly good results. According to chemical analysis, its feeding value should be slightly greater than that of oats, though we are not sure that it would prove so in practice, unless fed as a comparatively small part of the ration. Millet is grown extensively in Siberia, India, Japan and China, while the seed is used largely as human food. It is estimated that in one form or another the seed of millet is used as part of the food of one-third of the inhabitants of the globe.

6. Not very. When allowed to approach maturity, the fodder becomes woody, and is fed with some risk, especially to horses. The best use to make of millet is to cut and cure it for hay when the seed is in the milk stage. It is then good fodder for almost any class of stock.

7. Five successive years' test of sixteen varieties of millet on the experimental plots at the Ontario Agricultural College have resulted in the following average yields by four of the most prolific producers of seed: Siberian, 54.7 bushels per acre; Steel Trust, 51.9 bushels; Hungarian, 47 bushels, and Early Harvest, 41.4 bushels. In 1907, the greatest yield per acre was obtained from a specially-selected strain of Siberian, which yielded at the rate of 51.5 bushels per acre. In the same year, Steel Trust gave 43 bushels; Hungarian and Holy Terror Gold Mine, 42.6 bushels each; German or Golden, 41.7 bushels; Hog, 41; Siberian, 40.8, and Magic, 40.6 bushels. For fodder, Japanese Panicum is highly spoken of by Prof. Zavitz.



SEND FOR FREE SAMPLE

If you are having trouble with roofs that leak don't waste your time and money patching same. Put on a new Amatite Roof and you will have no further trouble.

We have combined in Amatite all the essentials which go to make a good roof. It is economical, durable, easy to lay and gives real protection.

When you buy Amatite you save money in two ways:

First—The original cost is low.

Second—It needs no painting to keep it tight.

Let us send you a Sample of Amatite and Booklet about it. It shows buildings all over the country that are free from leaks and trouble because they are covered with Amatite. Address THE PATERSON MANUFACTURING CO., LTD.

CANADIAN AGENTS.

Toronto, Montreal, Winnipeg, St. John (N. B.),  
Halifax (N. S.)



## LIVINGSTON'S OIL CAKE MEAL.

OLD PROCESS

Nothing is better for fattening steers quickly and putting them on the market in prime condition than Oil Cake Meal. Thousands of Canadian and English stockmen use Livingston's, and would have no other. It is equally good for milk cows. They give more and better milk when fed Livingston's Oil Cake Meal. Also used for horses, sheep and hogs. Write for information regarding prices, etc., etc., to

DOMINION LINSEED OIL CO., LIMITED  
Montreal, Que. Baden, Ont.

## SHORTHORN BULLS For Sale.

At the dispersion of the "Thistle Ha" herd in Jan., 1905, I purchased a few of the best breeding cows. From these cows I now have 6 extra good young bulls for sale. For pedigrees and other particulars apply to

JOHN MILLER,  
Brougham, Ont. Claremont Sta., C. P. R.

## J. Watt & Son SALEM ONT.,

Offer 12 or 15 high-class young cows and heifers in calf, or calves at foot, to (imp.) Pride of Scotland. Show stuff of different ages always on hand.

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



We are offering a very superior lot of SHORTHORN

## Home-bred Bulls

of the best breeding and quality at attractive prices for the buyer. To see them is all that is necessary. Try to do so if you are in the market. It will pay you.

JNO. CLANCY, Manager. H. CARGILL & SON, Cargill, Ont.

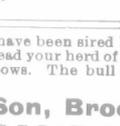
## The Salem Stock Farm

SHORTHORNS  
A SPECIALTY. WRITE FOR ANY INFORMATION.

J. A. Watt, Elora, Ont.  
G. T. R. AND C. P. R.

## Choice Shorthorns for Sale!

Some fine young stock, either sex, including some extra heifers from imp. dams, and all got by the Cruickshank (Duthie-bred) bull, Sittytown Victor, Imp., =50093= (87387). Also young Yorkshires, either sex. Address: JOHN BRYDONE, Milverton, C. P. R. & G. T. R.



MAPLE

Winners at the leading shows have been sired by bulls bred here. We can sell you a good bull to head your herd of SHORTHORNS, or for use on your good grade cows. The bull catalogue explains the breeding. Write for it.

John Dryden & Son, Brooklin, Ont.

Stations: Brooklin, G. T. R.; Myrtle, C. P. R.  
Long-distance telephone.

SHADE

## HERD BULL FOR SALE.

Lord Lieutenant (imported) No. =50050=, five-year-old. A1 stock bull, quiet and sure. 2 bulls just over 1 year. 2 bulls just under 1 year. Half dozen choice 1 and 2 year old heifers. All from imported sires, and some from imported dams. All are from good milking dams. Visitors always welcome.

SCOTT BROS., Highgate, Ont., P. O. and Station.  
M. C. Ry. and P. M. Ry.

## SUNNYSIDE STOCK FARM



Bulls in service: Queenston Archer =48808=, Trout Creek Stamp =67860=. A number of first-class young bulls, red and roan, and a few cows and heifers, for sale. Prices right. JAMES GIBB, Brookdale, Ont.

## Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

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

**Fleming's Vest-Pocket Veterinary Adviser** describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

**FLEMING BROS., Chemists,**  
75 Church Street, Toronto, Ontario

### A NECESSITY for Young Stock.

Protect your young stock against cold winds. No husk, scour, colic, or other complaints need be feared if the calves, lambs and porkers are fed on

## Molassine Meal.

Begin by giving them a small quantity from birth, gradually increasing as they grow older. Particulars and pamphlets from

**Andrew Watson, 91 Youville Square, Montreal**

## T. DOUGLAS & SONS

STRATHROY, ONT.

Breeders of Short-horns 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.

### Herd Bulls for Sale

We now offer our grand show and breeding bull, Ridgewood Marquis = 48995 =, good disposition and sure breeder, and Good Marquis = 69299 =, roan, calved Dec. 16th, 1906, a bull good enough to show anywhere. Our prices are reasonable. Write for particulars or, better, come and see.

**Jno. Lee & Sons, Highgate, Ont.**

## A. EDWARD MEYER,

Box 378, Guelph, Ont.,

Offers for sale two young Scotch-bred bulls of good colors, both from imported sires; one from imported dam and the other from a Clementina cow; one is 11 months old, the other 8 months. They will be sold well worth the money. Write, or come and see them. Long-distance 'phone.

## R. H. REID,

Glover Lea Stock Farm, PINE RIVER, ONT.,

BREEDER OF SHORTHORN CATTLE  
Golden Cross (imp.) at head of herd.

## SPRING VALLEY SHORTHORNS

Two young imported bulls of the very best quality and breeding. Six Canadian-bred bulls mostly the get of Bapton Chancellor (imp.) Prices right.

## KYLE BROS., AYR, ONTARIO.

### TWO IMPORTED BULLS

Direct from Aberdeenshire, Scotland, of excellent quality, color and breeding, two from imp. sire and dam, and others sired by Joy of Morning (imp.) = 33070 =. Prices in Shorthorns and Yorkshires will interest intending purchasers.

**Geo. D. Fletcher, Binkham P.O., Ont.**  
Erin Sts., C. P. R.

## GREENGILL HERD OF HIGH-CLASS SHORTHORNS.

We offer for sale choice young bulls from 6 to 18 months old, sired by imp. Lord Roseberry, also cows and heifers, with calf at foot or bred, either imp. or Canadian-bred.

**R. MITCHELL & SONS,**  
Guelph P. O., Ont., Burlington Jct. Sta.

## Maitland Bank Shorthorns

Five bulls, 12 to 16 months; six bulls, 9 to 12 months, got by Broadhooks Prince (imp.) = 55002 =, and some of them from imp. cows; also cows and heifers, milking sort and right breeding. Lowest prices for quick sale. Come and see them, or write.

**DAVID MILNE, Ethel, Ont.**

## SCOTCH SHORTHORNS!

We now offer four heifer calves 10 and 11 months old. All reds. Bred from imp. sire and dams. Will be sold right. **C. RANKIN & SONS,** Wyebridge P. O., Ont., Wyevale Sta.

## MAPLE GROVE SHORTHORNS

Scotch and dairy bred; up to date in type; prize-winners at the local shows. A number of 1 and 2 year old heifers, 1 year old bull, and one 5 months old—the last will make a show bull. Flora bred—will be sold easy.

**L. B. POWELL,**  
Wattenstein, Ont., P.O. and Stn., C.P.R.

### QUESTIONS AND ANSWERS.

#### Miscellaneous.

**GARGET.**  
One back quarter of milch cow's udder is warm and hard, and we can hardly get any milk from it. Please state what would be best to do with it.

**SUBSCRIBER.**  
Ans.—This is mammitis, or garget. Treatment consists in giving a purgative drench of one pound of Epsom salts, following up with a desertspoonful of saltpetre twice a day in damp feed, or as a drench in a little water, for three or four days. Bathe the quarter long and well two or three times a day with warm water (as warm as the hand will bear), finishing with warmed vinegar and water, and following with melted goose grease. Keep cow warm, blanketed, if necessary, and strip out several times a day.

**BLOODY MILK.**  
As I am a subscriber to "The Farmer's Advocate," I thought I would take the liberty of asking you a question. I have three cows which give bloody milk. I suppose it is the garget. Could you send me a prescription that would cure them?

**W. B.**  
Ans.—If the cow is giving milk freely, and there is no inflammation in the udder, it is not garget. If there is inflammation, soreness, and little or no milk can be drawn from the quarter or quarters, it is probably garget, treatment for which is given in answer to similar question in this issue. If the above conditions are not present, the bloody milk is probably the result of a rupture of the tissues of the teat or the udder, due to a bruise, or to severe pressure of the hands by the milker, and with gentle milking, and oiling the quarter with goose oil or lard, and giving a teaspoonful of saltpetre in feed twice a day for a week, the trouble may pass away.

#### IMPROVING ROOT-HOUSE—HEMLOCK FOR SILO.

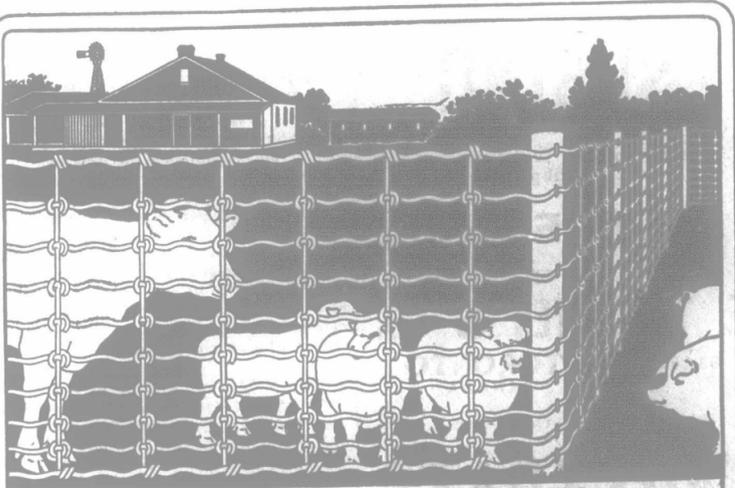
1. My root-house is built of stone, being a two-foot stone wall, sheeted inside with ordinary sound lumber (rough), one inch thick; built at the end of my cattle shed, and one side is protected from frost by my henhouse, but being on level ground, as my property didn't allow me to build otherwise, the whole trouble is that it freezes, and now I wish to know if I could prevent freezing by making my wall six inches thicker, by building of cement to my present wall, or could you tell me what can be done? Overhead it is well protected, being double sheeted, with sand on top, and we use overhead as a loft for hay.

2. Would you advise using hemlock in the building of a silo? I wish to build a round silo, and can get hemlock much cheaper than other lumber, and my intention was to get same out 2 x 6, and build in a tub-shape with iron hoops, painting the lumber on the outside, and tar same inside. Would this meet with your approval, and could you publish details re the building of same?

**J. O. B.**  
Ans.—1. A cement wall, a few inches thick, built outside the present wall of root-house, with an air space between, would, in all likelihood, keep out the frost.

2. If hemlock lumber is much cheaper than that of other timber, we would not hesitate to use it, if treated as you suggest. You could not expect it to last as long, however. Get your lumber cut full length, if possible, as it is easier to put up, and makes a better job. It should, also, be planed on the inside. The edges may be left as they are, so long as they are straight and true. A saucer-shaped concrete foundation is good, though not essential. The hoops are usually made of 1-inch round iron, with threaded (about 8 inches) ends and nuts. For a silo 30 feet deep, about 12 are used, putting them closer together at the bottom, where the pressure is greatest.

**T.**  
**TRUST NO MAN.**  
Host.—Have you seen the wedding gifts, old man?  
Guest.—No, not yet.  
Host.—Well, wait a moment. I'll get one of the detectives to escort you through.



### IMPORTANT TO FARMERS

Your fences are your fortress against loss and damage. They must be strong enough to resist invasion from without, and to keep within bounds your flocks and herds. You can't afford to take chances on soft, slack, or brittle wire fences, which may fail just when most needed.

## Peerless Woven Wire Fence

has the elastic springiness and resisting qualities that make an A 1 farm fence. Once up it lasts—no breaking—no falling down. There are reasons why. We can't tell them all in this ad, but if you will write to us we will send you some valuable fence facts.

**The Banwell Hoxie Wire Fence Co. Ltd.**  
Dept. B, Hamilton, Ont.  
Winnipeg, Manitoba.

## SCOTCH SHORTHORNS

My herd is represented by such noted Scotch families as Victoria, Orange Blossom, Duchess of Gloster Strathallan, Stamford and Lovely. Mostly from imported sire and dams. White meat for prices on what you want.

**J. F. MITCHELL,**  
Burlington Jct. Sta. Burlington, Ont., P.O. & Telegraph.

## SHORTHORNS AND LINCOLN SHEEP.

Two bulls, 11 and 12 months old—a Miss Bessie and a Bessie, both by the good breeding bull, Proud Gift = 80077 = (imp.), also cows and heifers in calf by him. Inspection solicited. Always have some choice Lincoln sheep for sale at reasonable prices.

**J. T. GIBSON, DENFIELD, ONTARIO.**

## Shorthorns!

### BELMAR PARC.

**John Douglas, Manager.** **Peter White, Pembroke, Ont.**

Calves for sale by our grand quartette of breeding and show bulls:

Nonpareil Archer, imp. Proud OR, imp.  
Marigold Sailer. Nonpareil Kelpies.

Females. Imported and from imported stock in calf to these bulls.

An unsurpassed lot of yearling heifers.

## Queenston Heights Shorthorns

Young bulls from imported and home-bred Scotch cows, and got by such noted bulls as Derby (imp.), Spicy Broadhooks (imp.) and Whitehall Ramsden. Priced for quick sale.

**HUDSON USHER, Queenston, Ont.**  
Farm three miles north of Niagara Falls.

## PLEASANT VALLEY SHORTHORNS

For sale: 5 young bulls by Old Lancaster Imp., from imp. dams, including Lancaster Victor, first prize sr. bull calf at Dom at Sherbrooke, second at C. N. E. Toronto. Correspondence solicited. Inspection invited.

**Geo. Ames & Son, New Wat, Ont., Stn., P.O. C. P. R. Farm 11 miles east of City of Guelph.**

# 10 IMPORTED 10 BULLS

Recently arrived from Scotland in good condition. They are a superior lot. Selected for herd-headers. We also have a number of Canadian-bred bulls of excellent quality, and representing the choicest breeding. Females suitable for show or breeding purposes.

**W. G. PETTIT & SONS, FREEMAN, ONTARIO.**  
Burlington Jct. Sta., G. T. R. Bell telephone at each farm.

## 1854 Maple Lodge Stock Farm 1908

Four handsome young Shorthorn bulls for sale. Heifers also.

**A. W. SMITH, MAPLE LODGE, ONTARIO.**  
Lucan Crossing Station, G. T. R.

## Valley Home Shorthorns AND BERKSHIRES.

Our herd numbers sixty-five head. We are prepared to give bargains to suit all who wish to buy from one animal up to a carload of females and 18 bulls from 9 to 18 months old. Also 25 Berkshires of prolific strains.

**S. J. PEARSON, SON & CO., Meadowvale, Ont.**  
Stations: Meadowvale, C.P.R.; Brampton, G.T.R.

## SCOTCH SHORTHORN BULLS

Woodfield Prince, sire the \$2,100 Goldenup, imported, = 50038 = (80064), dam Trout Creek Missie 20th, = 65067 =; red, little white; calved July 6th, 1906; a show bull. Also four extra bull calves, 8 to 10 months, by the Lavender bull, Trout Creek Wonder = 56167 = (247851), out of Scotch cows; imported by W. D. Platt; eligible for American Herdbook. Write for pedigrees.

**Gibbs' Woodfield Stock Farm, St. Catharines, Ontario.**

## Extra High Prices for SPRING

Ship us all you get. Write for our new complete April price list of

## RAW FURS.

**E. T. CARTER & CO.**  
83-85 Front St., E., TORONTO  
CANADA.

We pay all express charges.

## MUSKRATS

### THE HOOVER POTATO

The most successful digger made. Saves time, labor and potatoes. Satisfaction guaranteed.



Send for Catalogue of Diggers, Pickers and Sorters.  
HOOVER MFG. CO., Box 23, Avery, Ohio.

**FAIRVIEW HERD** is the place to buy your next bull. I can furnish you with a bull sired by our great herd bull, **PONTIAC KORNDYKE**, who has 19 daughters in the last year's report that made official records from 18 pounds at less than two years old to over 315 pounds at four years, and the whole number averaged over 41% fat. No other bull in the world has ever made such a showing in one year. I have just tested another of his daughters that made 96.40 pounds butter in seven days with second calf. I have over 50 cows and heifers in calf to him. Come and look my herd over before making your selections elsewhere. **E. H. DELAR, Newcastle, St. Law. Co., N. Y., near Prescott**



### LOOK HERE

Have on hand bull calves from choice dams, and sired by son of greatest cow in Canada. **Boutaje Q. Pietertje De Kol**; 643 lbs. 7 days; 96 lbs. 1 day. His sire's dam and granddam have records averaging over 100 lbs. butter week. Also choice bulls fit for service. Prices right. **FRED ABBOTT, Fairview Stock Farm, Harriestville, Ont.**

### Lakeview Farm Holsteins

Count Hengerveld Fayne De Kol at head of herd. Record of Merit cows with 7-day records of 12 lbs. for 2-year-olds, 18 lbs. for 3-year-olds, 24 lbs. for 5-year-olds. A number of young bulls for sale; also stock bull, 3rd Totilla Posch Johanna, and a number of high grade Holstein cows that are milking heavily. Write **W. D. BRIDGMAN, Long distance phone, Manager, Bronte, Ont.**

### WOODBINE STOCK FARM

Offers a few fine young Holstein bulls and bull calves, sired by Sir Mechtildes Posch. Sire's dam holds world's largest two-day public test record, dam Ianthe Jewel Mechtildes, 97.65 lbs. butter in 7 days; average test, 4.46 per cent. fat; out of dams with superior breeding and quality. Shipping stations—Paris, G.T.B.: Ayr, O.P.R. **A. KENNEDY, Ayr, Ont.**

### The Maples Holstein Herd!

RECORD OF MERIT COWS.

Headed by Lord Wayne Mechtildes Calamity, also in the Record of Merit. Nothing for sale but choice bull calves.

### WALBURN RIVERS, FOLDEN'S, ONT.

**QUEEN CITY HOLSTEINS.** 15 young cows due to calve during next 3 mos.; bred to bulls having high official backing. Orders booked for bull calves at moderate prices. A few bulls ready for service. Farm 7 miles north of Toronto, near the Metropolitan Ry. Write: **R. F. HICKS, Newto' Brook, Ont.**

### Evergreen Farm Holsteins

FOR SALE: Bull calves 3 months old, from A.B. cows. Dam and sire's dam average from 20.55 lbs. as 3-year olds, to 92.80 lbs. as mature cows in 7 days; also young females bred to Sir Mercena Favorit. **F. C. PETTIT, Burgessville, Ont.**

### HILTON STOCK FARM—Holsteins,

Ottawolds 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, Hilton, Ont. Brighton Tel. and Stn.**

**Special Offer!** Two very richly bred sons of Sir Abbekerk De Kol 2nd and Mercena's Sir Posch, from deep-milking and officially backed young cows, at low prices considering their rich breeding. For particulars address: **H. BOLLERT, Cassel, Ont.**

### QUESTIONS AND ANSWERS. Miscellaneous.

#### AUCTIONEER'S LICENSE— BLACK SPOTS ON TAM- WORTH BOAR.

1. Who is the proper person to apply to for an auctioneer's license for Elgin County? How much would it cost to procure same?
2. Should a pure-bred Tamworth boar have spots on the legs?
3. Having purchased one, through seeing advertisement and paying pure-bred price, should I be entitled to a portion of the price paid, after trying several litters, and they being marked similarly and neighbors complaining?

ENQUIRER.

Ans.—1. Apply to the county clerk. Councils of cities, towns or counties are empowered by the Consolidated Municipal Act, 1903, chap. 19, section 583, subsections 2 and 3, to pass by-laws in the premises, covering, among other points, the license fee, which is usually in the neighborhood of \$12.

2. The original scale of points for the Tamworth breed, that adopted by the National Pig-breeders' Association of Great Britain, reads, as to color: "golden red and free from black." But dark chestnut is frequently found, especially in older animals.

3. If the boar was sold as a pure-bred Tamworth, registered or eligible, and has black spots, and his progeny from pure-bred Tamworth sows show black spots, there would appear to be ground for suspicion that there was an error in the registration, and the seller should make restitution, either by returning a portion of the price paid or substituting a satisfactory hog.

#### PEAR ORCHARD DYING— HARDY PEACHES.

1. My pear orchard is dying, having been rather short-lived. What would be the effect of grafting onto other stock? Describe method of procedure, and best stocks to use? How long till they would come into bearing? What are the best kind of pears? I want some early, medium, and late kinds, mostly for home markets and table use.

2. I would like to set out a half dozen peach trees for my own use. Could I protect them by a covering of heavy cotton during winter and spring? It was 30 below zero one day last winter.

R. G.

Ans.—1. There are various causes which may account for your pear trees dying. In the first place, unless they are of good, hardy varieties, I would not expect them to live long in the Peterboro district. However, I know of several growers in that neighborhood who are growing a number of the hardier varieties quite successfully. Another cause which might account for the dying of trees is pear blight, which shows itself by the dying back of the branches during the summer as if they had been scorched by fire. The only remedy in this case is to cut out and burn all the affected parts as soon as noticed. Blight is often most serious upon trees which have been stimulated into vigorous wood-growth, either by frequent cultivation or liberal manuring. A few of the most hardy kinds for your district are: Clapp's Favorite, Flemish Beauty, Sheldon, Seckel, and Anjou. These cover the season fairly well, from early to late, and are among the varieties of best quality. The Clapp's Favorite is quite subject to blight, and the Flemish Beauty to the scab or cracking of the fruits, but thorough spraying with Bordeaux mixture will tend to keep the latter disease in check.

2. I am afraid you will be doomed to disappointment in attempting to grow peaches in your district. The peach cannot be satisfactorily grown where the temperature drops as low as you mention, for although the trees may be protected so as to carry them through the winter, the buds are often destroyed. If you wish to experiment with them, however, the best plan would be to procure pits from the most northern trees you know of and grow seedlings. These could not be depended upon to come true to variety, but among them you might possibly get some hardy enough to stand your climate for a time, and possibly even come into fruiting, though it would not be well to count too much upon them.

H. L. HUTT.

O. A. C.

**Glenwood Stock Farm—Holsteins and Yorkshires.** Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. **THOS. B. CARLAW & SON, Warkworth P.O., Ont. Campbellford Stn.**

**RIDGEDALE FARM HOLSTEINS**—For sale: 4 bull calves from one to ten months old; 3 heifer calves. All bred from choice dams. Also a pair of choice cows supposed to be in calf. **R. W. WALKER, Utica P. O., Ont. Port Perry (G.T.R.) and Myrtle (O.P.R.) stations, Ontario Co.**

## HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls, 100 head to select from. Imported **Pontiac Mervins**, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented. **H. E. GEORGE, Orampton, Ont. Putnam station, near Ingersoll.**



### HOLSTEINS FOR SALE!

The undersigned are uniting their herds, and to make room must sell a number of cows and heifers, also several young bulls. 75 head to choose from. Come and see them, or write for prices and description.

**M. & F. MALLORY, FRANKFORD, ONT.**  
Frankford and Belleville Sta.

### MAPLE GLEN HOLSTEINS

Herd of 35 head with A. B. O. breeding, backed up by butter tests of over 16 lbs. as a two-year-old to over 26 lbs. as a cow. A good herd to select from. Two spring bull calves on hand. A. B. O. test of one is over 26 lbs. for dam and E. dam. Come and inspect the herd. Any animal will be offered for sale.

**G. A. GILROY, GLEN BUELL, ONT.**

### Record of Merit Holsteins

195 head to select from. 35 in the R. O. M. Stock bulls: **Bonheur Riteau**, no. high official backing, and is closely related to **Colantha 4th's Johanna**; **Brookbank Butte Boy**. All nearest dams over 20 lbs. From these sires, out of R. O. M. dams, are several young bulls and a few heifers. Prices right. **P. D. BADE, Oxford Centre, Ont. Woodstock Station.**

### LYNDALE HOLSTEINS!

Bull calves for sale out of cows with records of from 18 to 20 lbs., also 3 heifers coming 3, and a number of young cows in Record of Merit, bred to a grandson of **Pietertje Hengerveld's Count De Kcl.**

**BROWN BROS., LYN, ONTARIO**

## Only Bull Calves

FOR SALE. HOLSTEIN and AYRSHIRE—Of the best performing strains.

**GEO. RICE, Annandale Stock Farm, Tillsonburg, Ont.**

### Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices.

**G. W. Clemons, St. George, Ont.**

**HOLSTEINS** Two choice bulls, 10 months. Also calves for April and May delivery, sired by imported **Ykema Sir Posch 2nd (Johanna Rue Sarcasie)**. O. I. C. swine. Largest strain bred in Canada. All ag. s. Exp. press prepaid. **E. D. GEORGE, Putnam, Ont.**

### FAIRVIEW HOLSTEINS!

For sale: Just now we have about a dozen cows and heifers, some of them in the R. O. M., and all with official backing on both sides, in calf to the Toronto 3-times champion. Also a number of bull calves with official backing. **THOS. HARTLEY, DOWNSVIEW, ONT.** Weston and Downsview stations.

**Spring Brook Ayrshires** Produced 7,000 lbs. of milk each, having an average test of 3.9 per cent. of butter-fat during the years of 1904, '05, '06 and '07. A few young bulls of 1907 for sale. Orders booked for calves of this year. Write for prices. **W. F. STEPHEN, Box 163, Huntingdon, Que.**



## Stoneycroft Ayrshires

Choice young bulls and heifers of the very best breeding, combining show and dairy quality. **Large Improved Yorkshire Pigs** from imported sires and dams, now ready to ship.

**STONEYCROFT STOCK FARM, Ste. Anne de Bellevue, Que.**

**Wardend Ayrshires** Present offering: 1 two-year-old, 3 yearling bulls, and choice lot of spring calves from good milkers. **F. W. TAYLOR, Wellman's Corners, Ont.** Hoard's Sta., G. T. R. Telephone in house.

**AYRSHIRES** Young bulls from producing dams and sires, from 7 months up to 2 years. Rare good ones and will speak for themselves. **R. DYMENT, Hickory Hill Stock Farm, Clappison, Ont. Dundas Station and Telegraph.**

## Burnside's Champion Ayrshires



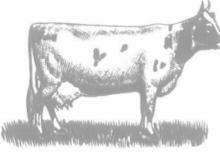
My 1907 importation of 75 head being about all disposed of, I am preparing to import again. Mr. And Mitchell the world's most extensive dealer and breeder of Ayrshires, is at present securing for me the best young bulls from the best herds in Scotland. Send in your order now for a choice bull and a female or two. Bulls will be out of quarantine in time for spring service. Correspondence solicited. Long-distance phone in house.

**R. R. NESS, Howlok, Que.**

**Glenhurst Ayrshires** Oldest-established herd in Ontario, Imp. and Canadian-bred. Average B.F. test for the whole herd, 4.2; milk yield, 40 to 80 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., Ont., Lancaster Sta.**

### KELSO S. F. AYRSHIRES

My winnings at Ottawa this year were: Aged cow in milk, 1st and ch.; dry cow, 1st; Canadian bred cow, 4th; Canadian-bred 3-year-old, 3rd. For sale, anything in herd, both sexes. Extra choice stuff. **D. A. McFARLANE, Kelso, Que., Athelstane Sta., G. T. R.**



## SPRINGHILL AYRSHIRES!

A better lot of young cows and heifers we never had. They have only to be seen to be appreciated. "Deep milkers" "Good testers" Just the kind for foundation stock. Bull calves from best cows. Will leave for Scotland shortly to import. Order a choice yearling or bull calf or a female or two. They will be out of quarantine for spring service. Write for prices.

**ROBERT HUNTER & SONS, Long-distance Phone, MAXVILLE, ONT.**



### The "STAY THERE"

**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 **WILCOX & HARVEY MFG. CO., 194 Lake St., Chicago, Ill.**

### STONEHOUSE AYRSHIRES

On hand for sale: A number of imp. cows and heifers, winners of high honors in Scotland & Canada. 4 young bulls bred from champions and winners themselves. Extra choice offering.

**HECTOR GORDON, Howick P. O. & Sta., Quebec.**

**DYSPEPSIA AND STOMACH DISORDERS MAY BE QUICKLY AND PERMANENTLY CURED BY BURDOCK BLOOD BITTERS.**

Mr. P. A. Labelle, Maniwaki, Que., writes us as follows: "I desire to thank you for your wonderful cure, Burdock Blood Bitters. Three years ago I had a very severe attack of Dyspepsia. I tried five of the best doctors I could find but they could do me no good. I was advised by a friend to try Burdock Blood Bitters and to my great surprise, after taking two bottles, I was so perfectly cured that I have not had a sign of Dyspepsia since. I cannot praise it too highly to all sufferers. In my experience it is the best I ever used. Nothing for me like B.B.B. Don't accept a substitute for Burdock Blood Bitters. There is nothing "just as good."

**Brampton Jerseys!**

Select your stock bull or family cow from Canada's most famous and largest Jersey herd.

**B. H. BULL & SON, BRAMPTON, CANADA.**

W. Willis & Sons, Pi-a Ridge Farm, Newmarket, Ont. Breeders of registered high-class JERSEY CATTLE. Stock for sale of both sexes, and reg. Cotswold sheep. Correspondence solicited.

**Jerseys 2 Extra Choice Young Bulls For Sale, 8 and 9 months old, grandsons of the great Financial King, out of large, heavy-milking dams. Inquiries solicited. ARTHUR H. TUFTS, Box 111, Tweed, Ont.**

**Cattle and Sheep Labels**

Size	Price, doz.	50 tags
Cattle	75c.	\$2.00
Light Cattle	60c.	\$1.50
Sheep or Hog	40c.	\$1.00

Cattle size with owner's name and address, and numbers; sheep or hog size with name and numbers. Sample and circular mailed free. Get your neighbors to order with you and get lower price. F. G. JAMES, Bowmanville, Ont.

**Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.**

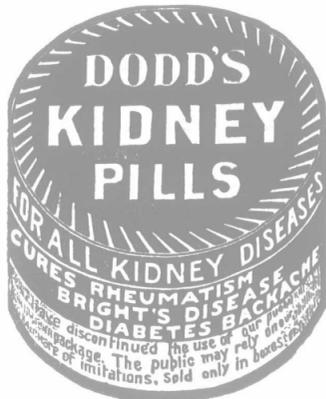
Present offering: Lambs of either sex. See prices, etc., write to John Cousins & Sons, Buena Vista Farm, o Harrieton, Ont.

A humorous editor in a certain small town had developed a fondness for gardening. One day his man-of-all-work left him, and the editor advertised for someone to fill his place. Among the applicants for the position was a man who seemed to know his business thoroughly, but who failed to produce references as to character when requested. Moreover, his eyes were somewhat shifty.

"You say you have no references?" the editor asked.

"No, sir, I have not," the man replied in a tone of humble pride; "but I think, sir that you will find honesty printed on my face."

The owner smiled a little. "Well—er—perhaps," he admitted; "that is, allowing for typographical errors."



**QUESTIONS AND ANSWERS. Veterinary.**

**ABSCESS IN SCROTUM.**

Horse's scrotum and sheath became swollen and sore. In a day or two it broke and discharged a bloody fluid.

S. J.

Ans.—Give him 4 drams hyposulphite of soda three times daily. Flush out the cavity of the abscess, three times daily, with a five-per-cent. solution of carbolic acid.

V.

**ERYTHEMA.**

Mare's fore fetlock swelled. Swelling extended upwards and involved the knee. I clipped the leg, which is tender, and a yellowish, sticky substance exudes.

J. W. S.

Ans.—Purge with 8 drams aloes and 2 drams ginger. Follow up with 4 drams hyposulphite of soda twice daily. Dress the leg, three times daily, with a solution of corrosive sublimate, 15 grains to a pint of water.

V.

**LAME MARE.**

During the winter of 1904 I noticed my mare favor her left hind leg when leaving the stall. Last winter she went lame on this leg. My veterinarian measured her hocks, but could find no difference, but advised me to blister, which I did without results. Her left hip has become lower than its fellow. She now generally starts off lame. Sometimes she does not, but after travelling a variable distance is liable to go very lame for a few rods. When standing, she favors the leg.

R. H.

Ans.—The symptoms indicate an occult spavin. This is a disease of the true hock joint, and seldom shows any enlargement. Treatment is seldom successful. It consists in firing and blistering the hock. It requires a veterinarian to operate.

V.

**UNTHRIFTY MARE—KIDNEY TROUBLE.**

1. Mare began to fail last fall. She is now very thin; tires easily; sweats in stable, and pants heavily when exercised. She eats well. She is fed on hay, oats and boiled beans.

2. Lost a mare last fall, and a post-mortem revealed the kidneys affected. A young mare has been sick, and I think it is from kidney trouble. What is likely to cause this?

P. A. L.

Ans.—1. Get your veterinarian to dress her teeth. Give her a laxative of 1 pint raw linseed oil. Then take 3 ounces each of sulphate of iron, gentian, ginger and nux vomica. Mix, and make into twenty-four powders. Give a powder three times daily. Feed well on hay, oats and bran, with a little linseed meal, and a carrot or two daily. Feed no more beans. Give regular, gentle exercise.

2. You give no particulars as to the appearance of the kidneys after death, nor the symptoms before death, hence I can have no idea what the trouble was. Horses seldom suffer from chronic disease. Impure food or water are liable to cause kidney trouble, but from want of particulars I am unable to diagnose in this case.

V.

**UNTHRIFTY COLT—PARTIAL PARALYSIS.**

1. Colt foaled September, 1906, had slight attack of distemper in the spring of 1907; was castrated in May, 1907; had distemper again, and legs swelled in June. The swelling disappeared, but he became very poor, and has remained so. He has been well fed, but will eat little hay, and will not take drugs in food.

2. Brood mare became paralyzed in both right legs last September. She improved slowly, and now can walk, rise without assistance, etc., but is not improving now. She will be due to foal in May.

C. S. R.

Ans.—1. It may be there is an abscess of distemper in some of the internal organs, and, if so, it will kill him. If there be nothing of this kind, he will recover. Take three ounces each of sulphate of iron, gentian, ginger and nux vomica. Mix, and make into forty-eight powders. Give a powder three times daily in half a pint cold water as a drench. Feed well, and give regular exercise.

2. Feed on easily-digested food, as clover hay, bran, rolled oats, linseed meal, and raw roots, and give her two drams nux vomica three times daily.

V.

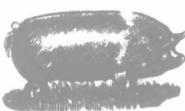
ESTABLISHED 1856

**Simmers' Seeds**

IF YOU have never planted them, try them this year. They never disappoint; they grow; they yield. You are always sure of freshness, purity and reliability. For this reason thousands of farmers, gardeners and planters in Canada plant Simmers' Seeds exclusively.

Our 1908 Catalogue contains many suggestions and directions, the result of over fifty years' experience in the seed business. Write for it to-day. It is Free.

**J. A. SIMMERS, Seeds, Bulbs, Plants. TORONTO, ONT.**



**Large White Yorkshires!**

Am offering at the present time a choice lot of boars ready for service, from imported stock; also young pigs of both sexes, not akin. Prices right, and quality of breeding unexcelled. Write or call on

H. J. DAVIS, WOODSTOCK, ONT.

**SUNNYMOUNT BERKSHIRES!**

Boars fit for service, sows safely in pig, young sows 4 months old, young sows and boars 3 months old, imported in dam. JOHN McLEOD, Importer and breeder, Milton, Ont., P. O. and Sta. C. P. R. & G. T. R.

**Yorkshires** A choice lot of boars and sows just farrowed and weaned. Boars ready for service, and sows ready to breed and bred. Bred from imp. and prizewinning stock. GEO. M. SMITH, Haysville, Ont.

**MONKLAND YORKSHIRES** are the easily fed, quick maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now. **JAMES WILSON & SONS, FERGUS, ONTARIO.**

**Newcastle Tamworths and Shorthorns**

For Sale: 100 pigs, both sexes, all ages. Sows from 10 months to 2 years, bred to Imp. Cholderton Golden Secret, all descendants of Cholderton Golden Secret, all descendants of Cholderton Golden Secret, all descendants of Cholderton Golden Secret. Also two choice Shorthorn bulls, ready for service, from choice milking dams, and sired by a son of Imp. Joy of Morning. A. A. COLWILL, NEWCASTLE, ONT.

**Glenburn Herd of Yorkshires**

Winner of gold medal three years in succession. 6 young boars from 6 to 9 months; also 75 young sows, from 6 to 12 weeks old.

David Barr, Jr., Box 3, Renfrew, Ont.

**Elmhurst Berkshires**

Our large brood sows are all imported. Stall Pigs Middy, Imp (1886), winner of first at Oxford, 1907, heads the herd. All stock shipped by us as represented or money refunded. Express prepaid. Large stock to choose from. Write us.

H. M. VANDERLIP, Importer and Breeder, CAINSVILLE, Ont., BRANT CO.

**Yorkshires and Tamworths**

Either breed, any age, both sexes; sows bred and ready to breed. Yorkshires bred from imp. sire and dam. Tamworths from Toronto winners. Pairs not akin. As good as the breeds produce. CHAS. CURRIE, Morrilton, Ont. Schaw Sta. C. P. R.

**Meadowbrook Yorkshires.**

Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmeny Topman. Everything guaranteed as represented. J. H. SNELL, Wagersville, Ont., P. O. & Station.

**LARGE ENGLISH YORKSHIRES.**—We have a limited number of choice young pigs for sale, bred from our choicest sows and got by the imported boars, Dalmeny Joe 1887 and Broomhouse Beau 14514. Pigs from the latter won all the first prizes at the Ottawa Fat Stock Show last March for the best dressed carcasses, and sweetstakes over all breeds or grades. We guarantee satisfaction in all mail orders. JOSEPH FEATHERSTON & SON, STRATFORD, ONT.

**Large English Berkshires**

for sale from imported stock. Sows with pig and pigs for sale. All ages. At reasonable prices. Guarantee satisfaction. Boars and sows delivered at Woodstock station, C. P. R. or G. T. R. JOSHUA LAWRENCE, OXFORD CENTER, ONT.

**Willowdale Berkshires**

are unsurpassed for quality and breeding. Young stock, all ages, for sale reasonable. Satisfaction guaranteed. Long-distance telephone in residence. J. J. WILSON, Importer and Breeder, Milton, Ont., P. O. & Sta. G. T. R. and C. P. R.

**OAKDALE BERKSHIRES** 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. Long-distance phone. L. E. MORSE, Milton, Ont., Co. of York.

**Cedar Lodge Yorkshires**

100 head brood sows (imp.) and the product of imp. stock, weighing from 500 to 600 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 akin. Satisfaction guaranteed. P. O. COLLINS, Bowesville P.O., Ont. Manotick Sta. C. P. R.

**EAST BANK HERDS**

Large English Yorkshire and Berkshire Swine, Shorthorn Cattle, Barred Rock Poultry. Am offering bargains in choice suckers at very moderate prices, bred from choice prizewinning stock. Can book orders for immediate delivery in any of the above, also for succeeding months. Barred Rock eggs 75c. for 15, and \$3 per hundred. Try me for a bargain in choice stock. Satisfaction guaranteed. Phone connection. IRA L. HOWLETT, Keldon, Ont.

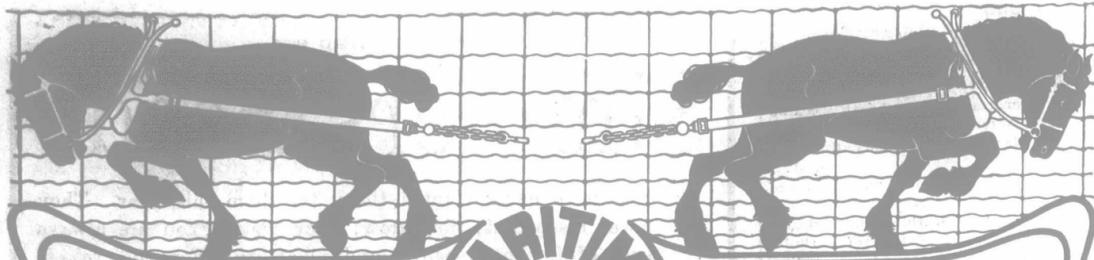
**CHESTER WHITE HOGS**

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. ROBERT CLARKE, 41 Cooper Street, Ottawa, Ont.

**Duroc-Jerseys**

Boars fit for service. Sows ready to breed. Several sows in pig, also younger ones. Imported Canadian Boy 19007 heads our herd. MAC CAMPBELL & SONS, Harwich, Ont.

**When Writing Please Mention Advocate**



**THE LOCK CAN'T SLIP**

The illustration demonstrates the phenomenal gripping-strength of our lock. Under the most unusual strain it never gives. It is known as the lock that can't slip; the lock that unfailingly holds the wires in their correct position.

**Our Free Catalogue** will tell you more about our can't-slip lock, and about the superior English high-carbon, hard-drawn steel wire from which Maritime Wire Fence is made. Address the card to

**New Brunswick Wire Fence Co., Limited, Moncton, New Brunswick**

**QUESTIONS AND ANSWERS.**  
Miscellaneous.

**TREATMENT OF ROOT GROUND—GREEN CROP FOR STALL-FED CATTLE—MILDEWED PEA FODDER—RUSTED OAT STRAW—BUCKWHEAT CHOP.**

1. I manured all my root ground last fall, and plowed the manure in shallow. How would be the best way to handle it this spring? Would plowing, or a thorough disking be best? Land is of a sandy loam.
2. As seed time is near at hand, I would like to know a good fodder crop to sow for stall-feeding cattle. Would peas and oats be advisable if cut green, or would well-saved corn straw be better?
3. Is clover a better fodder crop than green pea straw well saved?
4. I have been told that peas, sown late in the season and left to mildew, makes better fodder than early peas that would not mildew. Is this so?
5. I have also been told that green oat straw that is rusted makes better fodder, as the strength stays in the straw.
6. Is buckwheat chop good to mix with other chop for fattening cattle?

J. E. M.

Ans.—1. The method of treating the root ground this spring will depend upon the character of the lower soil. If it is somewhat hard, I think it would be better to plow the ground enough to loosen at least the upper six inches of soil. It would have been better in a case of this kind, however, to have had the deep plowing done before the manure was applied, because the manure should be left as near the surface as possible. If it is an open soil below, possibly through disking or gang plowing would answer the purpose. I may say that we usually employ a Sylvester cultivator for loosening the soil. If the manure is somewhat long, we take out some of the teeth, so that it cannot drag the manure ahead of it, and we sometimes use three horses, setting the implement to take a severe hold on the ground, and going both ways over the field. This will loosen the ground anywhere from six to eight inches deep, and mixes the manure in thoroughly with the surface soil.

2. Peas and oats would make a capital crop for cutting green for cattle. I am not sure, however, whether this correspondent wants peas and oats for summer feeding or for winter feeding. There is nothing for winter feeding that will equal clover hay or alfalfa, and I would certainly advise this correspondent to work in some alfalfa on his farm, which would be useful for green feed through a good part of the summer, and also for hay. A mixture of crops will generally be found advisable, and corn certainly affords a large quantity of cheap fodder, which, however, has not a very high feeding value, but which can be made to fit in very nicely with a food like clover hay.

3. Clover is certainly a great deal better fodder crop than pea straw, no matter how well cured the pea straw may be.

4. This looks like nonsense. How could mildew improve any crop of fodder? As a matter of fact, it injures the quality of the food, and your correspondent may rest assured that good bright pea straw is much better than mildewed straw.

5. Green oat straw certainly makes better food than straw from oats which have been thoroughly ripened; but your correspondent may rest assured that the rust detracts very materially from the feeding value of the straw. If it comes to making a choice between badly-rusted oat straw, which had been cut green, and good, bright oat straw, which had been cut from ripe grain, I would certainly take the ripe straw in preference. There is certainly no benefit to be derived from rust, though, as I said before, the straw from green grain is worth more than the straw from ripe grain, other things being equal.

6. Buckwheat may be used to a certain extent for fattening cattle, though it contains a great deal of tough, fibrous hull, and has not a particularly high feeding value. It can be worked in very nicely, however, with other kinds of chop in the case of fattening cattle.

O. A. C. G. E. DAY.

**Don't Become a Slave to Drugs**

The drug habit is the greatest curse of humanity. Do you know how it is formed, and who is responsible for the blighting of thousands of lives by this awful habit? I'll tell you. In nine cases out of ten, it is the doctor.

Suppose you are suffering from a stomach trouble. Your doctor gives you some medicine to relieve the distress. It relieves you all right for a few hours, but the pain comes back. Then you must take some more medicine. You don't know what this drug is that the doctor has given you, and you don't bother about asking until after Nature has cured the stomach, and you try to stop taking the medicine. That is the time when the skeleton at the bottom grins at you triumphantly.

The stuff that you have been taking is dope—poison, and the doctor knew it all the time. You see, this dope kills pain by stupefying the nerves, and, of course, they are weakened by each dose. If you stop taking the drug, your nerves will not let you have ease—you can't sleep, can't eat until you feed them with the poison.

Anyone who takes drugs for the cure of pain or disease is liable to become addicted to the drug habit in this very way. Nearly all drugs that you buy contain a large amount of opium or poison of some kind. The base of the doctor's prescription is poison. He uses it in nearly every case he treats.

Every time you take a drug to force the stomach, liver, kidneys or heart, you hurt them—you actually lessen their natural vitality, and anyone can see that in time by steady dosing, you will have no natural action of these organs.

If you are sick or ailing in any way, it is because of the failure or breaking down of some vital organ. The reason any organ fails to do its work is because it lacks electricity. When it is doing its work right, the stomach generates electricity for the support of the body and itself. When it is not able to generate this needed force it must have aid. This aid is electricity, artificial electricity, as applied by my Belt.

Electricity is a relief from the old system of drugging. It does by natural means what you expect drugs to do by unnatural means. It removes the cause of disease, and after the cause has been removed Nature will do the rest.

Dr. McLaughlin's Electric Belt is easily, comfortably worn next to the body during the night, and gives out a continuous stream of that strength-building, nerve-feeding force which is the basis of all health.



Dr. McLaughlin: Lakeville, N. S.  
Dear Sir,—I am glad to tell you that your Belt has made a great improvement in me, for which I am most thankful. I have great faith in it. It has done me more good than medicine. Wishing you every success.  
**BRENTON D. LAWRENCE.**

Dr. McLaughlin: Smith's Falls, Ont.  
Dear Sir,—I must say that your Belt has done me a lot of good. I have got a little fleshy, and look a lot better. I have a good appetite, and my food digests better, and I sleep a lot better. Please accept my thanks for your kindness, and excuse me for neglecting to write to you.  
**MRS. M. McMANUS.**

If you are skeptical, all I ask is reasonable security for the price of the belt, and you can use it on the conditions of

**NO CURE! NO PAY!**  
Every sufferer should try Electricity. It is far cheaper than a course of drugging.

**FREE TO YOU.**  
Get my 84-page book describing my Belt, and with illustrations of fully-developed men and women, showing how it is applied.

This book tells in plain language many things you want to know, and gives a lot of good, wholesome advice for men. I'll send this book in plain wrapper, prepaid, free, if you will inclose this coupon.

I want to convince every sufferer that he can get benefit from my treatment. Nobody should be without it, for it is cheap enough, far cheaper than a course of doctoring, and I want everybody to try it. Let every sufferer who can do so call at my office and make a full test of my battery free of any charge.  
If you can't call, send this coupon for my book:

**DR. M. S. McLAUGHLIN,**  
112 Yonge St., Toronto, Can.

Dear Sir,—Please forward me one of your books, as advertised.

Name.....

Address.....

Office Hours: 9 a. m. to 5.30 p. m. Wednesday and Saturday till 8.30 p. m.

SPRAY THIS FALL WITH  
**SCALECIDE**  
DON'T WAIT TILL SPRING

**Sure Death to San Jose Scale**

Add 16 gallons water to 1 Scalecide and it's ready to use. Absolutely permanent percentage maintained, saves time enough to pay for the material. Guaranteed. It's cheap, effective, easy to use, non-corrosive, non-clogging, and contains more oil and less water than any other commercial spray. In 1-5-10 gallon cans, 25 and 50 gallon barrels. Free booklet.  
**B. G. PRATT CO., Mfrs. New York,**  
**SPRAMOTOR CO., Sole Can. Agents, 1075 KING ST., London, Can.**



**When Writing Please Mention this Paper.**