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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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LONDON, ONTARIO, MARCH 4, 1909.

No. 858

Vol. XLIV.

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We want you to remember the

thus causing a leaky roof.

Safe Lock Shingles cannot be blown off, nor can they be pulled apart by warping of the sheeting, or any other cause.

Study the small illustrations on this page, and you will be convinced of the truth of this statement.

FIG. 1

In Fig. 1 the solid black line shows the top lock, the shaded line the bottom lock. Notice that a

contraction due to heat and cold. They cannot unhook.

Illustrations 3, 4 and 5 show the construction of other metal shingles.

FIG. 3

No. 3 is the old-fashioned cleat shingle now almost entirely driven from the market by the Safe Lock. These do not always shed water, and it is almost impossible to keep them from leaking after they have been on for a season or two:

FIG. 4

Note in No. 4 that the nail is only about half way driven into the sheeting, leaving a large surface exposed to the weather. This makes a very insecure fastening for a roof, and this is still further weakened by the springiness of the steel, which has a tendency to pull out the nails, causing a loose, leaky, rattling roof.

FIG. 5

No. 5 is a side slip pattern, similar to many now on the market. The one shingle slips into the other, but does not lock. Shingles constructed in this way pull apart easily and must not be confused with the positive lock in our Safe Lock Shingles, as shown in Fig. 2.

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double fold forms the top lock instead of a single fold, thus giving twice the strength at the point where the greatest strain comes.

With Safe Lock Shingles the nails are driven full length into the sheeting, and are protected by the peculiar lock construction from any possibility of water backing up and starting rust.

FIG. 2

Fig. 2 shows the side locks. Note the deep firm grip which allows ample room for expansion and

The Metal Shingle and Siding Co.

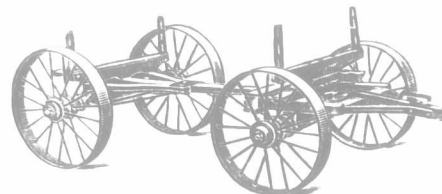
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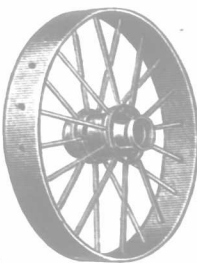
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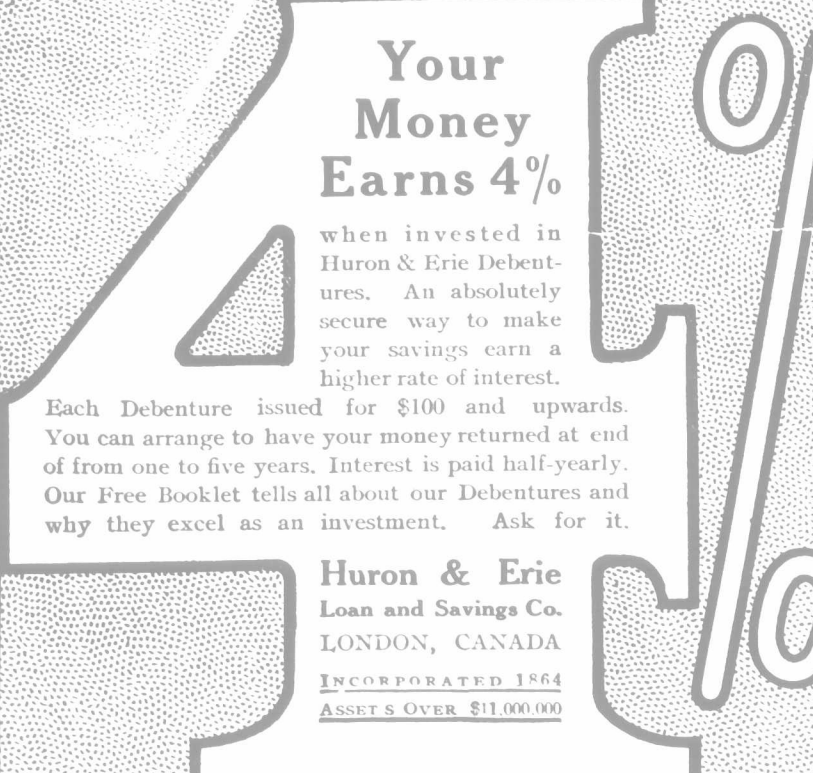
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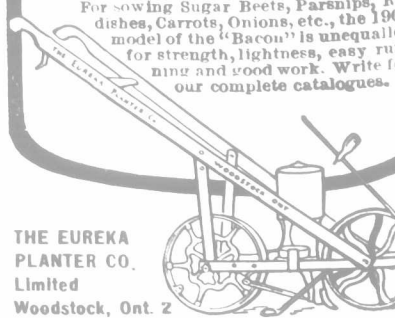
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LONDON, ONTARIO, MARCH 4, 1909

No. 858

EDITORIAL.

Household or Home?

A pretty delicate but most important subject is touched this week by our old friend Sandy Fraser, regarding whose silence these months past some concern has been felt not only by the editors, but by many readers as well. While our correspondent has illustrated his text with some exceptional examples, his strictures have an undeniable basis of fact. We yield to none in admiration of country life as it may be, and in some cases is, but it must be admitted that the comparative isolation of farm life, the lack of social and educational privileges experienced by many; the economy necessary, or at any rate practiced in many rural households, and the exacting nature of farm work, have tended to produce and perpetuate among some of us a degree of uncouthness and reserve which bears with crushing force upon the finer instincts of the gentler sex. We do not say that such conditions are inseparable from farm life, for they are not; nor would we imply that they obtain generally, in all their iron-clad rigor, but there are instances where they do, and traces of them can be seen in a good many rural homes. Conditions are improving, but there is yet room.

It has been said, with some considerable degree of truth, that the way to keep the boys on the farm is to keep the girls there; but if the lasses of to-day are to be wedded to the land, they must have a more alluring prospect spread before them than some of their mothers have had. The picture of love in a cottage is all very well, but if the cottage becomes a white-slave domicile, animated only by a grim determination to make money, the picture takes on another aspect.

The twentieth century is emphasizing the gospel of leisure—leisure not only for rest, but for culture, intercourse, and pleasure. Like most other developments, this idea has reached the city before the country, but gradually it is permeating the rural districts. The modern farmer buys an increasing variety of implements to expedite and also to lighten his labor. Man-like, we think first of ourselves, of the additional dollars we can make, and the easier time we can have. Does not the wife deserve first consideration? Abstractly, we concede that she does. In reality, do we act as though she did? Too often not. We are inclined to think that if she has a washing machine and a new churn, and doesn't have to milk, she should count herself pretty well off. It would do some of us good to take a look into a modern city home, with its bathroom, sewage arrangements, soft and hard water, both hot and cold, in the house; laundry-room, cooking pantry, rugs on the floors, and other appointments designed to make housework easier and life more livable.

But I cannot afford these things, you say. Perhaps not in all instances, but many of us could, while substantial improvements could be added in the majority of cases. Indeed, some country homes are already equipped with nearly every convenience found in a city residence.

And if you cannot provide your wife with all the facilities you would like, you can give her one thing she will appreciate vastly above all these. Give her your sympathy. Evince a practical interest in her work and her special concerns. Crops and stock are not the only things worth while. The children are at least as important as the cattle, and the kitchen rather more essential than the stable. One of the pathetic features of hu-

man existence, not only on the farm, but in the city as well, is the spectacle of a man and wife, trudging along side by side, yet treading in different paths, separated by a barrier of reserve. As a rule, we believe the responsibility for such a situation rests largely with the husband, and upon him it devolves to make first advances. It is awkward enough at first, but Sandy gives us a neat touch when he says it will not hurt one after the first two or three times.

Open out to your wife, get outside yourself occasionally, and try to converse habitually on the subjects in which she is interested. A touch of sentiment will make the family kin. Brick, mortar, lumber, trees, flowers and spacious grounds do not make a home. It is the family life, the love, affection and considerateness that are within. These virtues exist, of course, in the majority of families, but we would like to see them take on a little more practical form. Family affection is not a sordid thing, but love that is never manifested in a tangible expression is of doubtful quality, and shrivels with passing years. It is the speaking of thoughts to each other, and the doing of things one for another that rekindles the flame of passion or the warm glow of affection, and the doing of a few little acts of thoughtfulness, the lightening of a burden of labor, and the speaking of a few words of kindness, would transform many a household into a home.

Provincial Police System.

The need for a change in Ontario's rural constabulary, as suggested in "The Farmer's Advocate," is steadily gaining approval. The delegates to the recent convention of the Fairs and Exhibitions Associations left no doubt as to their desire for a more efficient system for the protection of the rural population. Representing, as they do, the intelligence of agriculturists in all parts of the Province, the enthusiastically unanimous resolution, advising that a rural mounted police force be adopted, or that the present system be so changed as to insure better protection, should bear weight.

Following the action of this representative body, come comments from the press in different parts of the Province, pointing out the necessity of a more efficient constabulary. In the Mail and Empire, a letter from Lieut.-Col. Graveley presents memoranda for the organization and operation of a police-force system for Ontario, whereby qualified men would be enlisted or employed as policemen or constables on a semi-militia basis, to enable each city, town and rural municipality to be supplied with the number required for the maintenance of law and order. The Province would be divided into districts for organization purposes, the chiefs of these districts forming the executive and advisory board for the whole, under the direction and control of the Attorney-General, as supreme head, or such other officer as he may appoint. The following districts are suggested: London, Hamilton, Toronto, Kingston and Ottawa. Other officers and men would be responsible to and governed by their respective district heads. By way of payment, the proposed plan is to have the force paid, clothed and maintained directly by the Province, and that, indirectly, the Province should be recouped by a special assessment on each municipality to cover the expenses of the number of constables required in that municipality.

Regarding the efficiency of operation of such force, Lieut.-Col. Graveley says: "A crime is committed in any one municipality where a Pro-

vincial policeman is stationed; he at once notifies the head of his district, with full particulars, description, etc., of the culprit; these are at once communicated to every station in the Province; the whole force then being on the alert, the chances of escape are reduced to a minimum, and the law is vindicated. It is well known that numberless criminals have gone free and unpunished for want of such a system as I suggest."

In the main, the suggestions are along the line of the idea outlined in our columns recently. Gradually, the feeling is growing that the present system is obsolete and inadequate for the protection of those in rural sections against criminals of divers kinds. All that is necessary is to convince the Legislature that a change must be made. This should not be difficult.

Profit from Poultry.

Many farmers are inclined to look on poultry-keeping as a small business, worthy the attention only of women and children. It has been customary to refute this impression by citing statistical aggregates, and by reference to scientific or experimental data. But such answers, while quite in order, are liable not to carry strong conviction home to the doubting mind. The actual accounts of farmers keeping poultry under everyday conditions are decidedly more stimulating, and certainly more instructive, when details of management are conjoined with the financial statement.

It may, perhaps, be just as well for a farmer not to become wholly absorbed in his poultry-yard. Better to specialize on cattle or sheep. On the other hand, a fair-sized poultry flock, say 50 to 100 birds, or perhaps 200, well attended, will help to develop in the owner a beneficial capacity for detail, and will be liable to lead to increased care of the other farm stock. In short, while poultry should not, as a rule, become the specialty, it makes a first-class side-line, which should receive attention on almost every farm.

That there is good profit in poultry, is attested by the experience of many keepers, published in "The Farmer's Advocate" this winter. Of course, it is the successes, rather than the failures, that are recorded, but we rise to observe that if the farm flock received the care it deserves, the failures would not be so serious or numerous. So many flocks are kept in filthy quarters, ill-fed, unexercised, neglected, and allowed to become badly infested with lice or disease, and then the owner writes telling us his hens are dying, and wondering what is wrong. The trouble generally lies in the management.

A dollar profit a year per hen, used to be the slogan. Nowadays, with eggs ranging from 15 or 18 cents to 40 or 50 cents a dozen, and market poultry also high in price, it is possible to better this considerably. It is comparatively easy to secure 120 eggs per hen, worth in the neighborhood of \$2.50. The expense for feeding a farm flock should not exceed \$1.25 per hen, which would leave \$1.25 for work, housing and profit, throwing in the manure. Taking these facts into consideration, it is not difficult to establish the hen as our most economical converter of cereals and by-products into wholesome human food.

Few farmers but would be surprised at the showing of their poultry were they to give it a fair chance, put the flock on a business basis, and keep strict accounts. Quite a number of our readers are doing this. Why not you?

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JOHN WELD, MANAGER.

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THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

An Erroneous Deduction.

Figures will prove anything, is a familiar epi-
gram, of which a fresh example has been fur-
nished in a press bulletin on the subject of whey-
butter experiments, issued by the Dairy Branch
of the Ontario Department of Agriculture. Either
that, or an error has been made in the calcula-
tions. Last week we published this article,
which contained reference as follows to the feed-
ing value of whey fat:

"From experiments carried on by Prof. Geo.
E. Day, in Guelph, in 1907, it was found that
1,000 pounds of whey, as it comes fresh from the
vats, is worth, when fed to hogs, about 12½ cents
more than 1,000 pounds of whey from which the
fat has been separated."

Inasmuch as Prof. Dean had previously com-
puted the feeding value of skimmed and unskim-
med whey (as indicated by Prof. Day's experi-
ments) at 13.1 cents and 18.2 cents per cwt.,
making a difference of 4.8 cents per cwt., or 48
cents per thousand pounds of whey, we were as-
tonished to find the figures placed at only 12½
cents in this official deliverance. Immediately,
therefore, upon receipt of the article, we wrote
the Director of Dairy Instruction, at Toronto,
asking him whether it was not the 1908 experi-
ments that were referred to, and inquiring how
such a low value for whey fat had been deduced
from them. We quote from our letter as follows:

"Taking as a basis the 1908 experiments, we
find, according to data supplied by Prof. Dean,
in his paper read before the Eastern Live Stock
and Poultry Show, and by Prof. Day in a letter to
'The Farmer's Advocate,' dated January
18th, 1909, that, to produce 100 pounds of gain
with ordinary whey and meal, it took 269 pounds
of meal and 747 pounds of whey. In the case of
the separated whey group, it took 297 pounds of
meal and 774 pounds of whey; while, in the check
group it required 430 pounds of meal to produce
100 pounds of gain.

"Now, according to this, we figure that 1,000
pounds of ordinary whey saved 215.5 pounds of

meal, while 1,000 pounds of separated whey saved
171.8 pounds of meal, or a difference of 43.7
pounds. If meal is worth 1 cent a pound, this
would mean a difference of 43.7 cents per 1,000
pounds in the value of skimmed versus unskimmed
whey."

Copies of this letter were sent to Professors
Day and Dean. At the date of this writing we
have heard only from Professors Day and Dean.
They both assure us that we were correct in as-
suming that the experiments were conducted last
year, and also that our conclusions, printed
above, are perfectly sound, as based upon this
one experiment, though Prof. Day, whose letter
appears elsewhere, points out, as "The Farmer's
Advocate" did in a recent issue, that further ex-
periments are called for to revise or establish the
conclusions. While fairly well satisfied with the
relative showing of skimmed versus unskimmed
whey, he feels that, for some reason or other, too
high a value was indicated for both classes of
whey. We are disposed to agree with him in
this; it is even possible that the press bulletin
issued has not underestimated the feeding value
of whey-fat, though we incline to think it has.
Be that as it may, it is perfectly clear that if the
1908 experiments are to be accepted as the basis,
the feeding value of the fat in 1,000 pounds of
whey is nearer half a dollar than a York shilling.

Feeding Value of Patrons' Whey.

Incidentally, Prof. Day's article draws atten-
tion to the fact that the results of an experi-
ment in which a perishable by-product like whey
is fed in first-class condition, and regularly, in
small quantities, should be accepted with quali-
fication in their bearing upon commercial opera-
tions. There is a measure of force in this argu-
ment, though it seems to us overmuch is made
of the wastage likely to be entailed in ordinary
feeding practice. Whey is discussed as though
it were purchased in bulk by a feeder, who had
to incur the expense of hauling, etc. As a matter
of fact, the whey in Canadian cheese factories is
commonly returned to the patrons in reasonably
regular quantities, and without any particular ex-
pense for hauling. True, it is usually sour and
minus much of its fat, but these deficiencies are
being overcome by pasteurization.

As for our claim that good sweet whey is
worth at least 10 cents per cwt., we fail to see
but that this is well within the mark. As be-
tween the value indicated by the O. A. C. experi-
ments and the figure we named, there is quite a
wide latitude for contingencies. We are strongly
of the opinion that the feeding value of dairy
by-products has been commonly underestimated,
and consider that they should be appraised at
what they are worth as substitutes for meal,
making due allowance for waste, irregularity of
supply, and condition in which delivered.

Over Three Millions Wasted.

In moving a resolution in the House of Com-
mons, proposing that a petition be presented to
the King, praying that the British North America
Act should be so amended as to provide for the
abolition of the Dominion Senate, E. A. Lan-
caster, M. P., stated that in ten years that vegeta-
tive body on Parliament Hill had cost the
country three and a quarter millions of dollars.
It exercised no legislative functions, he declared,
all it did being to divorce people.

Mr. Lancaster's resolution may not accom-
plish its final purpose just now, but some day it
will. As we have previously observed, "the ex-
istence of a non-elective body like the Senate is a
travesty on the idea of responsible government.
It is admittedly an expensive nuisance as it is,
and no one has yet suggested an acceptable plan
for its reformation. By and by the consensus of
opinion will arrive at the logical conclusion—
abolition."

Educates and Inspires.

"The Farmer's Advocate" should be in every
rural home, as it educates and inspires its readers
with scientific knowledge which we, as farmers,
would take a lifetime to know from experience,
and possibly never learn.

Wellington Co., Ont. G. E. HONNINGER.

Sandy Fraser on Woman's Rights.

Editor "The Farmer's Advocate":

Its pony a lang day since I did ye the honor
o' contributin' tae yer columns, an' ye wouldna'
be hearin' frae me the noo gin I hadna' somethin'
o' muckle importance tae say to a number o' the
readers o' yer journal. I dinna' ken exactly hoo
mony o' them wad mak' a suitable text for my
sermon, but be they mony or few, I want tae tak'
a rap at the farmers o' this country, wha, I'm
afraid, are no sae muckle better than their auld
fathers were before them, in spite of all the gude
advice they hae' been gettin' frae lawyers an'
ministers, to say naething o' mysel'.

And noo, what I'm wantin' tae talk about tae
ye hard-hearted auld farmers is just this: Hoo
are ye an' yer auld wumman gettin' along the
day? Are ye still makin' her pull wi' ye on an
even whiffletree, or hae' ye given her an inch or
twa o' the advantage, as ye will aye be daein' for
the wee pony? I'm muckle afear that wi' mony
o' ye the pony gets mair than its fair share o'
attention.

Noo, ma brither farmers, I juist want tae pit
the case before ye, fairly an' squarely, an' tell ye
some things I hae' seen, an' mair things I hae'
thought, an' a few o' the mony things I wad
hae' liked to hae' said relative tae this subject,
o' the life oor daughters, wives an' mithers lead
on the farm. The wear an' tear, an' the hurry
an' worry will no' be lang in startin' up once
mair, which is anither reason for ma wantin' tae
pit in this last word at the present time. The
question is, "Is oor life on the farm lived in the
way best calculated tae give an all-round develop-
ment tae oor daughters an' wives, an' is it mak-
in' them happy an' contented in their hame?"
If it's a case of wark frae daylight till lang after
dark, every day in the year, and na thocht for
onything else but that an' siller, we're aff the
track. I kenned o' an auld farmer wha used tae
keep the lantern, a' ready lit, beside his bed, so
that he could grab it an' rin as sune as the clock
struck three in the mornin'. The pair auld fel-
low is deid the noo, an' those wha pretend tae
ken say that he didna' tak' ony o' his siller awa'
wi' him. Anither man o' my acquaintance used
tae rin frae the field tae the hoose when the auld
wumman wad blaw the horn for dinner, an' them
rin back tae his wark again wi' a piece o' bread
in his hand, so not to waste ony time. I could
aye ken his rinnin' tae dinner, but rinnin' back
tae his wark again beat me.

Noo, if these men had only killed themselves,
the case wad be no' sae bad, but, like every other
mon on the wrong road, they docht a lot mair
gae the same w'y. Wives an' dochters a' had to
keep up tae the pace set by the auld mon, an' it
turned oot tae be a "pace that killed" the auld
fellow himself, onyway.

Maist o' the time, though, its the wumman o'
the hoose that gae under first, she havin' tae
wark inside maist o' the time, an' gettin' no
change frae day to day, but aye washin' the same
dishes in the same dishpan, and sweepin' the same
floor wi' the same broom, an' forty-seven hundred
ither things, till at last she can dae na mair, an'
her auld man has tae spend in doctor's bills a'
that he saved by no' gettin' a hired girl for his
wife. Sometimes she maks' oot tae dee and get
awa' frae a' her trouble, an' then he has tae gae
tae a' the worry an' expense o' gettin' anither
ane.

I once heard a minister say frae the pulpit
that "A' that bothered farmers when their wives
died was that they hadna' onyone tae dae their
wark an' wait on them hand an' foot." This
may be true or no', but I wad like tae ken, for
instance, why its aye the wumman that waits on
the man, an' never the other way around? The
only time I ken that a mon waits on his wife is
when she pits on his collar an' necktie, an' gets
him a' ready tae gang tae the kirk, an' he goes
oot an' sits in the buggy an' yells at her tae
come along. That's the kind o' waitin' a man
does.

But, onyway an' whatever, ma friends, ye ken
as weel as I dae mysel', there's something wrang
in the hame life of the average Canadian farmer,
an' if ye dinna' ken just what it is, I'll tell ye.
Ye expect too much frae yer wumman folks in the
way o' wark, and ye dinna' show them enouch ap-
preciation for all they dae. I hae seen wimmin
keepin' hoose wi'oot a sewin' machine or a wash-
in' machine, an' wi' naething but an auld cracked
stove to cook the dinner on, an' daein' it weel,
but never a word o' praise or appreciation did
they get frae the time they were marrit till they
went tae their grave. If that sort o' life does
na' tak' the ambition oot o' ony wumman, or
send her tae the asylum, she's a lang piece above
the ordinar'.

Anither thing that is being done by turning
the farm into a slave-ranch is tae gie the young
lassies o' oor countrie sic a horror o' the life that
they will na' marry a farmer if there is onything
else in pants that they can get, an' wha can
blame them? They ken what their mithers cam'
through. So, for the sake o' the rising genera-
tion o' the tillers o' the soil, let us gie our

dochter sic an impression o' life on the farm that they will choose that life before any ither, an' we can gie them that impression by juist using a wee bit o' common sense an' consideration.

Noo, ma friend, I dinna' think I hae asked too much o' ye, gin things are no' gaein' juist richt in yer hame, an' ye want tae straighten them oot. Be juist as gude tae yer wife as ye are tae yerself, an' maybe a wee bit better. If ye can buy machines for the farm, ye can buy them for the hoose; an' if ye can hire a man to dae some o' yer wark, ye can hire a girl to dae some o' hers. An' dinna forget what I said aboot appreciation. Showing a little o' that winna' hurt ye after the first two or three times. Neither will yer dinner be ony the worse, tak' ma word for it.

Noo, Mr. Editor, I hope nane o' yer readers will tak' offence at my plain speaking. It is the privilege o' an auld fellow like mysel' tae be giein' advice, sae lang as he has na' got into his dotage, an' I ken that when that time comes wi' me, ye will be showin' yersel' a true friend by appraising me o' the fact. SANDY FRASER.

Education for the Farm.

It has been an all-too-prevalent practice in Eastern Ontario, at least, for the successful farmer to educate his smartest boys and put them into professions. This has resulted in the fact that, all over this country, and in the United States, you will find farmers' sons in all professions, some making fortunes as politicians, doctors, lawyers, preachers, merchants, etc., while very many are eking out a bare existence, living respectably, still displaying the traits of manhood instilled into their natures at their mother's knee down on the old farm, with its open, fresh air and its teachings of nature. Still, all too many have fallen in the struggle against vices that beset the innocent youths from less-populated places. The writer has in mind one neighborhood in one of the Eastern Ontario Counties, where, some years ago, were a lot of as fine types of boyhood as could be found anywhere. These boys were the sons of successful farmers, in most cases of the finest types. They worked hard, and economized, in many cases, to give their boys a good education, and fit them for, as they thought, a higher life than farming. One who was most pronounced in this, died recently from a broken heart, as the result of the perfidy of one of his boys. The old farm, that provided not only a good living for the entire family, but also enough to give all the boys and girls (seven in number) a good education, has passed into the hands of strangers. One of the boys committed suicide a few years ago, another has become a notorious swindler, whose operations are spread over two continents; one of the daughters is living in dishonor, having been deserted by her husband; the other four are still eking out a fairly respectable living, but I doubt if the four could raise funds enough to buy back the old farm. This is but one of hundreds of similar experiences, where happy, prosperous families have been ruined by the foolish idea of many farmers that their children are too good to be farmers, and who educate them and put them into positions they are unable to fill. If our farmers would only understand that agriculture offers better opportunities for education and ability than any other, and, while it may not furnish opportunity for amassing fortunes in a day, yet, by the application of attention and ability, the reward is sure, and also that the greater the intelligence applied, the greater the reward. If our successful farmers would educate their sons and daughters, not for the professions, but as skilled scientific agriculturists, how much better it would be for them and for the country.

We have too many professional men, and not enough thorough, up-to-date, practical farmers. It seems to be the opinion of many farmers that their smartest boys should be educated away from the farm, and that the drones or dunces are good enough to have as farmers. It would be much better for the country if the best and ablest boys were given a good agricultural education, and made farmers of. In the neighborhood above mentioned, all the young men of about the writer's age, except two, left their homes to seek fortunes in other parts. They are scattered all over the earth's surface, almost, and just one has made a financial success; some ten or twelve others have made more or less dismal failures, two having died of loathsome disease. The two that stayed at home on the farm have made successful, up-to-date farmers, and are both well-off and highly respected.

The risk is too great. Better, far, your boy should be a successful farmer, living in comparative comfort and contentment, than struggling to keep soul and body together in the city, often resorting to shady or openly dishonest and dishonorable transactions in his frantic efforts to keep up in the race. Agriculture and its allied interests offers a surer future, and is honorable. It is good enough for the best boys and girls our

country possesses, and the sooner our farmers come to realize this, the better will it be for all concerned. If you, my farmer friend, have more boys than you can place on separate farms, can you not place them all on the one farm, to their advantage. I maintain that 150 acres is sufficient to maintain four boys in comfort. Carleton Co., Ont. W. J. KERR.

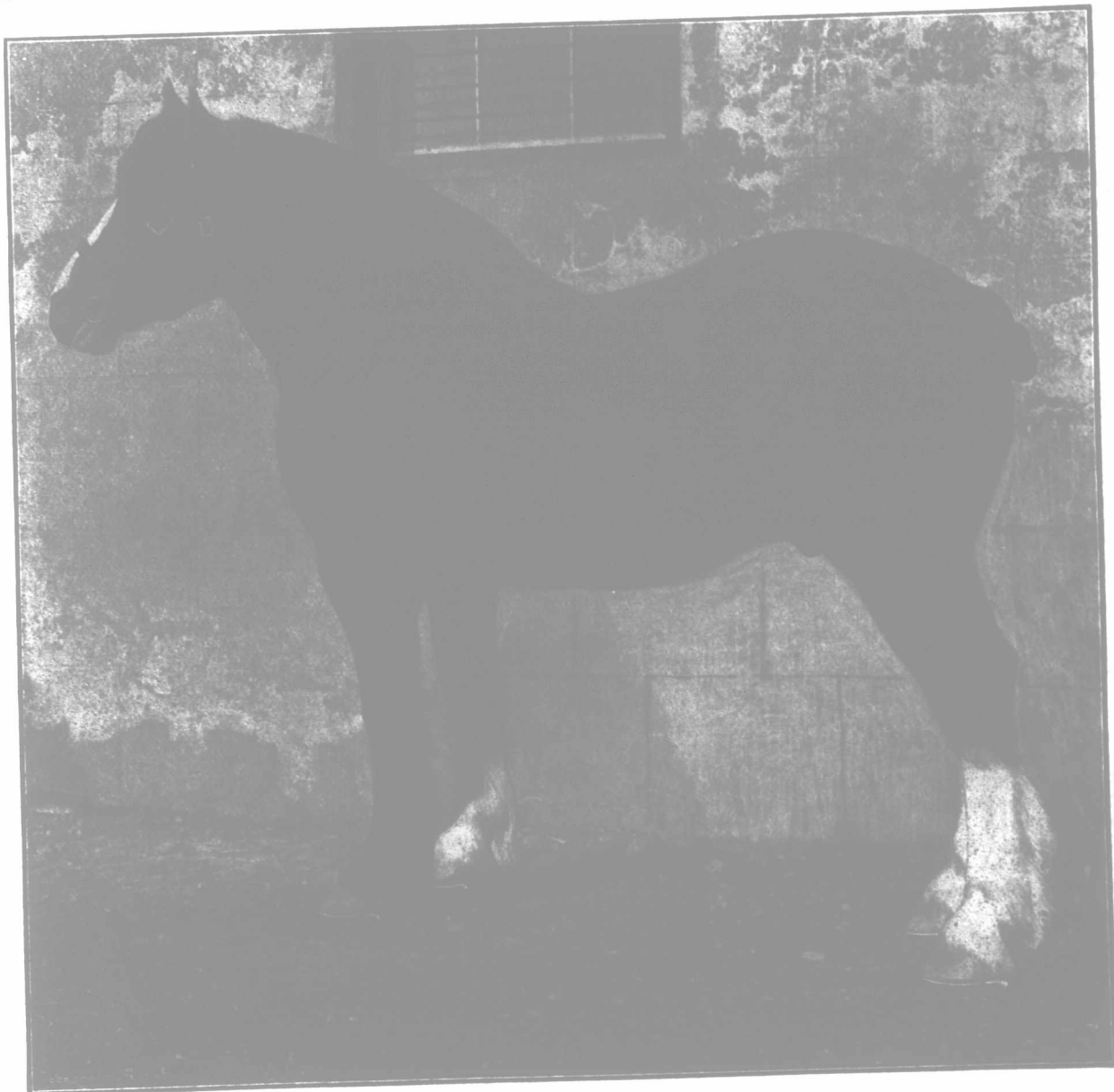
HORSES.

Our Scottish Letter.

The dead season is pretty well over, and we are again entering on the days when there is life and motion. The event of the past week has been the Scottish Stallion Show, at Glasgow. The show was well up to its usual standard. The three-year-old class has probably never been excelled. The quality of the animals exhibited in that section was unusually high, and both the great trophies of the show, the Cawdor Cup, open to all ages, and the Brydon Challenge Shield, open to three-year-olds and horses above that age, were won by the three-year-old horses. The winner of the Cawdor Cup was Mr. Robert Brydon's Bonnie Buchlyvie 14032, the male champion last year at the Royal and at the Glasgow Summer Show. This horse is a model Clydesdale. He is very showy when on parade, has beautiful feet and limbs, and excellent action. There is a wealth of refinement about him this season which was rather lacking a year ago, and he is likely to hold the triumphant position to which he has thus early been exalted. His sire, Baron o' Buchlyvie 11263, was first at the H. & A. S. show last year, and has proved himself one of the pick of the sons of Baron's Pride 9122. Three out of four of the first-prize winners at this Glasgow Stallion Show were got by him, viz., Perfect Motion, which was first in the aged class, and last year was first in the same class, as well as second at the Highland, where he was beaten by his sire; Bonnie Buchlyvie, and the first-prize yearling, Dunure Footprint (strictly speaking, he is only ten months old, and very good at that). The winner of the Brydon Challenge Shield was Mr. Kilpatrick's St. Clair 14347, an amazingly thick, well-ribbed colt, with good feet and legs. He was second to Bonnie Buchlyvie in the open class. Mr. Brydon's horse would have won the Shield, as well as the Cup, but Mr. Brydon did not show his horse for his own trophy. The third three-year-old was Mr. Pollock's Montrave Vicroy

14278, a very bonnie, gay horse, got by Hiawatha 10067, out of the Cawdor-cup mare, Lady Victoria 14582. The fourth three-year-old was Mr. Guild's Sam Black 14348, in some respects—size, substance, quality of bone, and great back and ribs—the best colt in the class. Mr. W. S. Park's Laird of Erskine, to which the Glasgow district Junior Premium of £80 had been awarded, was placed fifth. The aged class was not nearly equal to the three-year-old class. The winner was Mr. Kilpatrick's Perfect Motion, already named, a horse of immense substance and magnificent action. The others in the prize list were capital animals, second place going to the black horse, Ganymede 14130, from Mr. Marshall's stud, Stranraer. Mr. Taylor had third and fourth with a pair of grandsons of Sir Hugo, namely, Sir Dighton 13760, and Sir Spencer 13211, very fine, sound horses, the former big and cart-horse-like in every line, the latter a typical Clydesdale. We had a choice class of two-year-olds, and John Leckie, Inchwood, Milton, of Campsie, had the honor of breeding the first and second, from a mother and daughter. The first was High Degree 14703, owned by A. M. Simpson, East Killinde; and the second, Royal Salute 14826, an own brother to Royal Review, the H. & A. S. champion stallion of 1907.

A remarkable feature of this show was the extraordinary number of high-class animals claiming Baron's Pride as their grandsire. The first and second aged horses; the first, second, third and fourth three-year-olds; the first yearling, and the third two-year-old, are all in this category. Many of the best are out of Baron's Pride mares. The cross between Hiawatha and these mares is still proving most successful. But the most notable feature of this show has been the recognition by owners of the value of a veterinary examination. Hitherto, the rule has been that the two great trophies, the Cawdor Cup and the Brydon Challenge Shield, could only be won by horses which had passed a veterinary examination for soundness, and, in the case of the Shield, for height as well. But there was nothing to hinder a horse which was unsound entering the arena and competing for the trophies. This year the rule was not altered, but it was made known that only sound horses could win these trophies, so only sound horses should be allowed to compete for them. This led to quite a number of exhibitors bringing forward their horses to be examined by Principal McCall on Tuesday afternoon, and many more would have been sent forward had the Society given a certificate of sound-



Black Ivory (Imp.) [7761] (13367).

Clydesdale stallion; black; foaled in 1905; imported and owned by Smith & Richardson, of Columbus, Ont. First in his class at Ontario Horse-breeders' Exhibition, Toronto, in January, and first and reserve champion at Eastern Ontario Live-stock and Poultry Show at Ottawa, 1909.

ness to those which passed. As it was, fifteen were examined, and all of these but one passed, on a schedule which included the following disqualifying diseases: Roaring, whistling, ringbone, sidebone, unsound feet, navicular disease, spavin (bone), stifle-joint disease, stringhalt, shivering (chorea), and cataract. Of the fourteen which passed, eight appeared to compete for the final trophies, viz., Bonnie Buchlyvie, Perfect Motion, St. Clair, Montrave Viceroy, Sir Dighton, High Degree, Royal Salute, Black Douglas. All these horses had, therefore, an implied guarantee that they were free of these diseases, and this must greatly enhance their value. There is every probability that in a few years all animals competing at the principal shows will be subjected to veterinary examination preliminary to their entering the ring. This will insure that, so far as human skill can decide the matter, only sound horses will receive prizes. What will be of still greater moment will be the enforcing of a rule by hiring societies that their premiums will only be awarded to sound horses. Some exception has been taken to the schedule on the ground that it does not include "bog" spavin or thoroughpin, as well as "bone" spavin. There is a general disposition to admit that there is something in this criticism, and possibly an amended schedule will be prepared. The pioneer in this movement in Scotland was Mr. Brydon, who owns the champion, Bonnie Buchlyvie. He made "a veterinary pass" a condition of winning the Shield. The Clydesdale Horse Society took the matter up this year. Although it derives no benefit from the Glasgow Show, it pays the veterinary fees, and for the Cawdor Cup, and also bears a share of the cost of fitting up the vetting enclosure. The most gratifying feature of the whole business is the readiness of owners to subject their horses to the veterinary test. For this we were not prepared, and the outlook for the breed along these new lines is very hopeful. The Clydesdale is a very sound race. This is well known to those who have long handled Clydesdales; but the fact, when certified by a qualified veterinarian like Principal McCall, will carry much greater weight.

"SCOTLAND YET."

Side Dishes for Farm Horses.

Editor "The Farmer's Advocate":

The months of February and March, or portions thereof, are generally conceded to the farm horse as his period of recuperation and rest. Possibly the words of the old song may go a long way in explaining why—for, "How can he work when there's no work to do?"

During the winter months, on a well-managed farm, the horse will be called upon to do hard work, and lots of it. And rightly so, for he has a temporary respite from flies, heat and dust, and, as a rule, the call upon his energies is lessened by good roads and easily-moved loads. He works with every advantage. His feed will, during this time, be such as to meet his requirements—energy-and-heat-producing foods, liberally fed, to rebuild the rapidly-consumed tissues. When, however, the thaws of spring set in, and the winter work being completed, the feeding problem is one of how to build him up in flesh quickly, and tone his system generally, without causing digestive disturbances.

One of the best foods for the horse in comparative idleness, as where he works a couple of hours each day, hauling manure, etc., is crushed or rolled oats. In many mills it is now possible to have oats rolled so perfectly and cleanly that practically no dust or flour is formed, comprising a food far superior to the usual rolled oats, which, in many cases, are nothing but oat provender. That its value is recognized, even in the ration of heavily-worked horses, is evinced by the fact that one of the largest transportation companies in Montreal has recently installed such machinery in their feed-room. To the farm horse, during his vacation, it may be fed liberally, best with one-third bran and a small addition of linseed or flaxseed meal. As a standard grain ration for wintering stallions receiving only light exercise, it is unexcelled, and for colts and young stock equally desirable.

In order that the horse may be brought into the best possible condition for his spring work, however, some specially-prepared food is necessary, and a little time spent in culinary effort for the benefit of the four-legged motor, is far from wasted. The writer has a small steel wheelbarrow, similar to that used by the Italian white-wings in his civic capacity. This barrow is filled nearly level with fine-cut hay; over this is thrown two gallons of bran, and over all a large pot of boiled oats and boiling water in which a quart or so of feed molasses has been dissolved. After a thorough mixing, the food is covered and allowed to steam for half an hour or more. The quantity in which it is fed will be gauged by the amount of hay used in the mixture. It forms a nutritious, loose-textured, easily-digested food, to the palatability of which the horse testifies during, and more particularly after, his meal. Boiled oats, with an addition of bran and linseed meal, is also a very acceptable food, but it lacks

the loose texture and consequent ease of digestibility of the former. Boiled barley is also a useful feed, particularly to the hard-worked horse, where its strength is an advantage. To the idle horse barley must be fed only in moderation. A bran mash, in which is dissolved a little nitre, or an ounce and a half of nitrous ether, or a few crystals of Glauber's salts, should be given each Saturday night, while the boiled food may be given every second night, alternating with an evening feed of roots (whole mangels, carrots or turnips), and a few handfuls of whole oats.

If stock foods or tonic mixtures are to be used, now is the time. A stated amount mixed with any of the foods mentioned, will add a flavor, increase the palatability, and in most cases benefit the condition of the horse.

Carleton Co., Ont. GEO. B. ROTHWELL.

Millet as Horse Feed.

Editor "The Farmer's Advocate":

In the Horse Department of your issue of Feb. 11th, I noticed questions asked by E. J., and their answers from the editorial standpoint, and request made for the experience of the readers. In reply, I will give you my experience of last fall (1908). I own a hundred-acre farm, most of which is under cultivation. Last year I did not thresh in harvest, as most of my neighbors did, but waited until I had all the harvest in. Then I threshed everything, and, in so doing, I had to either blow a large amount of straw out or cover up my timothy and clover hay.

Having a fine yield of Japanese millet just in bloom, I decided to cover the hay with straw, and experiment with millet-feeding. On August 28th I cut down the millet, which averaged about five feet in height, left it to cure for three days, and then drew it in and commenced feeding it to the horses, two aged geldings and two brood mares, one raising a foal, and the other having lost hers. I did not give them all they would eat of it, but just what I thought was enough, the millet being the only coarse feed they got. Along with it, they each had three quarts oats and I quart oat chop each meal.

On this feed they did all the fall plowing and other fall work, and last fall's plowing was the hardest plowing I can remember doing, as the excessive rains during harvest and the extreme drouth after harvest seemed to bake or harden the ground terribly, in some places rendering plowing almost impossible, and I may say that the horses stood the test well, and came out in as good shape for winter as ever they did.

AN INTERESTED FARMER.

Perth Co., Ont.

Sick Horse in Dark, Unventilated Stable.

Editor "The Farmer's Advocate":

I went to see a neighbor who had a sick horse. The stable was closed up tight—no light of any sort, no ventilation, and all the horses blanketed. The smell and damp heat was anything but pleasant. I was not surprised the horse was sick. The owner does not take "The Farmer's Advocate"; fancies he knows it all now. Don't you think a little light and ventilation would be better?

J. F. WEBBER.

[Note.—Certainly. It is the old, familiar story: Ignorance and conceit are twins.—Editor.]

LIVE STOCK.

Alfalfa for Hogs in West.

In discussing methods of raising hogs for profit in Saskatchewan, Philip Leech, who has marketed hogs at six months averaging over 200 pounds, says:

"I provide two hog pastures, one for the sows to run in for the two months they are feeding for market, and the other one for the young pigs. I pull an empty granary into the pasture, where most pigs are, to put their feed in, and have barrels in the granary to soak the grain in. At the end of two months, the sows now being sold, I let the young pigs have the run of the two pastures. The feed of the pigs up to this time consists of shorts mixed with ground barley and oats. Now I drop out the shorts and feed barley and oats, or feed-wheat, feeding liberally. At the same time, they will spend an hour or two each day in the alfalfa. I used to be amused last year at my pigs eating alfalfa. Just at sundown each day they would leave the pen and start for the alfalfa. They would keep at it until after dark. As time goes on, and the pigs are growing, and the alfalfa getting short, we must supply something else. We must have a patch of sugar beets (hogs like sugar beets) growing right beside the pasture—the more hogs, the bigger the sugar-beet patch—and we keep piling those beets over the fence twice a day up to about the middle of October."

Lambing Time with the Flock.

Editor "The Farmer's Advocate":

The season is here again when the shepherd begins to prepare for lambing time in the flock. Of course, if he is wise, and wants a really good crop of lambs, he begins work to that end even when the ewes are running with the ram. In fact, the more care and attention the sheep have the whole year round, the better crop of lambs there will be. But this time I will give our method of caring for the sheep just before and after lambing. About a month before the lambs are expected to arrive we slacken their ration somewhat, and give them a little more bran and oats. Of course, they are getting good clover hay, as this is the best of feed for sheep the whole winter long, and no sheep-owner should be without it. Right here I might sound a note of warning. Do not feed heavily with grain before or just after lambing, or caked udders will be the result, and the shepherd will be bothered more than if he had fed no grain whatever. Afterwards, one may feed all the grain the ewes will eat up clean. A small pen is provided for the lambs, with an opening too small to admit the sheep, but large enough for the lambs, and open all the time, so they can run in and out at will. In this pen they are fed as much bran, oats, oil cake, finely-sliced turnips and good clover hay as they will clean up. They will not eat very much at first, but they will soon learn, and it will surprise one how eagerly they will flock around the troughs when feeding time arrives. Of course, the lambs should be docked when about three weeks old, and the rams that are not intended for breeding purposes castrated at the same time. When the snow is well off the ground, we turn the sheep and lambs out on the pasture for an hour in the forenoon and afternoon, to take a run and get a little grass, which is the best thing they can get after being shut up all winter in the house and yard; but we never let them go out hungry, as they might eat more than is good for them. As the weather grows warmer, they depend more and more on the grass, till they are left out all the time. We begin shearing when the weather is warm enough. We always try to get their wool off as early as possible, even if it is cold. If they are protected a few nights, they become used to the shorn condition, and do all the better afterwards. After the sheep are shorn, they will not be troubled with ticks, as it is too cold for the insects, which get on the lambs instead. So we always try to dip the lambs soon after we shear the sheep, in this way getting clear of the ticks for a time. Ticks are easily killed with a good dip. Lice are far harder to get clear of. As the lambs are not very large at this time, it is very little trouble. We get a large tub, put the dip into it, catch the lambs, and put them into it one at a time, all but their heads, being careful not to splash any in their eyes. It will do the eyes no harm, but it will cause a lot of annoyance to the lambs. We always dip them on a warm, sunny day, and, as their wool is short, they dry off quickly, and do not get chilled. The lambs will do a great deal better after being dipped, as there are no ticks to torment them. The sheep and lambs should be put on fairly good pasture, and changed from one field to the other, say, once a week, alternate between two fields, would do. If the sheep could be taken in every evening, and the lambs given a good feed of grain, better lambs would be the result. When they are weaned, have a piece of peas, oats and vetches adjoining their pasture, and let them in this twice a day. Divide it in two pieces, and, when they have eaten off one piece, let them on the other. When this is eaten, have a piece of rape ready for them; this will do them all the fall, and they might be fed a little grain in troughs in the field, if you have it to feed. If the lambs are fed in this way, you will have a flock of lambs that will be a pride to the owner, and command the highest prices, either as butcher's or breeder's stock.

A word to those who are thinking of taking up sheep-raising might not be out of place. The rapid increase in the consumption of mutton, especially of the meat of young sheep, forbids any risk of the present overdoing of the shepherd's industry. At the same time, the world's consumption of wool is steadily increasing, through the increase of civilized populations, and the opening of hitherto closed markets of previously savage peoples. For instance, the fast-civilizing tribes of Africa are becoming consumers of woollen clothing, and millions of people are every year doing the same, who previously never knew what a garment of any decent kind was. We cannot doubt that production must ever in the future be stimulated by consumption, and in this way the increase of flocks must be an absolute necessity.

P. E. Island. SHEPHERD.

MARCH 4, 1909

Ventilation for Profit in Beef Cattle.

Discussing the effect of stable ventilation on the profitable feeding of beef cattle, J. H. Grisdale gave the following at the recent Eastern Ontario Live-stock and Poultry Show:

"To live, every animal must have air, water and food. Without food, life is possible for a good many days. Without water, the vital spark lasts but a short time. When, however, air is the lacking quantity, life is short indeed. Yet, judging by the average barn in the Canadian Provinces, the exclusion of fresh air in appreciable amounts has been the aim of the builder, and is still the aim of the farmer. Fortunately, every crack or chink does its best to help mitigate the disastrous results that would be certain to follow the successful execution of so ambitious an effort. Yet one should not condemn as cruel or entirely mistaken such widespread effort to exclude the good pure air. The average farmer, like every other Canadian citizen, likes to be comfortable, and, to his fancy, warmth and freedom from so-called drafts are two of the chief factors making for that state wrongly characterized by the word comfortable. Life under conditions which make for the best performance of life's duties, be they the writing of a thesis by a scholar, or the production of a pound of meat by a steer, should be called the comfortable life.

"A mistaken idea exists as to conditions under which the pound of beef is most economically, hence most comfortably, produced. Not a few farmers have fed steers in openly-constructed buildings or sheds, and had excellent results. Who has not heard more than one such feeder congratulate himself on the success of his feeding operations, and the next minute regret that his building had not been warmer, feeling and asserting that, such being the case, the results would have been very much better. He was most probably quite mistaken, and one of the chief factors making for his success was the poor building in which the work was carried on. The chinks and cracks meant plenty of air; plenty of air meant good health, and the perfect performance of the digestive and assimilative functions of the steers.

"On the Experimental farm, at Brandon, Man., in 1907-08, a number of steers were fed outside, with no shelter, save protection from northerly and westerly winds by a bit of leafless oak scrub. They were fed on the same rations as a bunch of similar steers inside in a warm stable. Just note the results:

"The lots went on feed December 1st, 1907. The outside lot weighed an average of 1,106 pounds on that date, and 138 days later, April 22nd, 1908, weighed 1,340 pounds each, an average gain of 234 pounds, or nearly 2 pounds a day. The inside lot weighed, December 1st, 1,139 pounds each, and came off feed April 22nd, 1908, in 138 days, weighing 1,390 pounds each, having gained 251 pounds each in the period. The gain was slightly greater, but was more expensive to produce. To make 100 pounds gain in live weight cost \$5.67 in the case of the steers fed outside, but \$6.20 in the case of steers fed inside. It is evident that the unlimited supply of fresh air had something to do with economy of gains. It must certainly have done much to help perfect utilization of the food, since less food was required to produce 100 pounds gain under the apparent handicap of greater loss of heat.

"At Ottawa, in 1902, steers fed in an un-ventilated building made a very low and expensive gain. In 1903, similar steers, on similar feed, in the same building, then thoroughly ventilated, made heavy gains at a very low cost per 100 pounds increase in live weight.

"In 1907, steers fed in an open shed at Ottawa, made gains relatively more economical than similar steers in a fairly well-ventilated barn. In 1908, however, steers in the same shed, while doing well, failed to give as good results as steers fed in a very well-ventilated barn.

"There is no doubt but that one of the most important considerations in feeding steers is to see that an abundance of fresh air is always entering their quarters, even though the temperature should seem to be lower than one might consider comfortable, judging from one's own feeling."

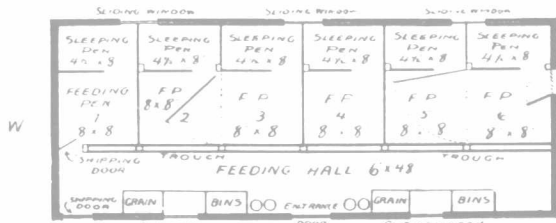
Another Pigpen Plan.

Editor "The Farmer's Advocate":

In response to your invitation for the submission of plans of hogpens, I enclose the ground plan of one I have recently put in use, with considerable satisfaction.

The floor is concrete, 18 x 48, fronting the south, which declines 6 inches at the eastern end from the level at west end, giving general drainage throughout in cleaning and flushing. The floor also declines from the front to a point 4 1/2 feet from rear wall, where it is 8 inches below the level at front. From the rear wall, the floor also declines about 2 inches on the 4 1/2-ft. floor, leaving a drop of 6 inches, forming an angle which serves as a gutter, and is easily cleaned. About

6 feet from the front, starting 2 feet from the west end, runs a cement feeding trough throughout. At intervals of about 8 feet this trough has a cross wall, dividing it into sections. The space between the trough and the front forms the feeding hall. The space between trough and gutter is partitioned off into feeding sections, at the rear of which a partition, with an entrance opening, shuts off the sleeping apartment on the higher, sloping, 4 1/2-ft. floor. The frame of the superstructure is of 2 x 4 scantling. The posts and studs stand upon a cedar sill 2 x 5, and are 7 feet long. The plates thereon support a peaked, shingled roof, overlaid with building paper. The frame is sheathed and overlaid with building paper, which is covered by tongued and grooved siding, up and down. Inside, the studding is sheathed from the floor up about 4 feet. Three sliding windows at the rear side, and two others in the front, light the house, and, along with four ventilators in the roof, control the ventilation. An entrance door near the center of front, a shipping door at the west-end front, and a double door at the east end entering the yard; one swinging door opening inward, and one sliding on the outside. Both these doors work over the projecting



Plan of Hogpen.

Recently constructed by P. W. Gilbert; 18 x 48 feet.

end of gutter. Cross-beams, 2 x 4, extending from plate to plate, gird the roof, and are supported by other beams running lengthwise over the trough and gutter. These again are supported by 2 x 4 posts resting on the wall beside the gutter and upon the cross-walls of the trough, all slightly embedded in cement. These posts sustain the corners of partitions. The partition walls are about 4 feet high. The one shutting off the feed hall stands over the trough. That shutting off the sleeping apartments stands over the wall at the gutter. The sleeping pens are separated from each other by permanent partitions, but the partitions between sections of the feeding space are hinged on the corner posts at the gutter, hooked at the front, bevelled at the bottom to correspond with slope of floor, and hung high enough above it to clear the litter in swinging. When these swinging partitions are swung back over the gutter, they close the openings to sleeping pens, and are held there by a drop-latch. In shipping, the sections intervening between shipping door and the pigs to be shipped can be cleared. In cleaning or flushing, all the sections can be thrown open, leaving a clear floor, while the pigs are all comfortable in their sleeping-rooms. The flooring overhead carries the supply of bedding material. P. W. GILBERT. Prince Edward Co., Ont.

Feeding Experiments with Whey.

Editor "The Farmer's Advocate":

I have your favor of the 19th inst., enclosing copy of letter regarding a press bulletin* issued by the Dairy Branch of the Ontario Department of Agriculture.

Of course, the experiments referred to were conducted in 1908. I am totally unable to say, however, where the 12 1/2 cents per thousand pounds difference in value between separated and ordinary whey was obtained. I had nothing whatever to do with the bulletin, and this is the first intimation that I have had that such a bulletin was being prepared.

So far as I can see, your conclusions are perfectly sound, as based upon this one experiment. I regret, however, that there seems to be a tendency on the part of the public to attach a little too much importance to the result of a single experiment. Personally, it was against my judgment that the results were made public at all until further work had been conducted; but Prof. Dean, at whose request the work was undertaken, was very anxious to have our results, and I gave them to him, with the reservation that it must be remembered that only one experiment had been conducted.

I feel fairly well satisfied regarding the results, so far as the comparison of the two classes of whey is concerned, but I feel that, for some reason or other, we obtained too high a value for whey of both classes in this experiment. Of course, where products of this kind are fed with care, and the animals are charged only with what they consumed, it is possible to obtain a great deal higher value for dairy by-products than any

person could afford to pay for them. It must be remembered, in connection with products of this kind, that the person using them is liable to incur a great deal of loss through waste. For instance, supposing a man contracts to take all the whey from a certain cheese factory. It might be that at certain times he would have more whey than he could handle to advantage, and, under such circumstances, it might prove an expensive food at a comparatively low price, because it is a perishable product, and the surplus cannot be stored for subsequent use. In addition to this, he probably has to draw the whey nearly every day, which is a serious consideration, and adds to the cost of the product. The same objections apply to skim milk or buttermilk, and consequently it is not safe to value them at a very high price in making a calculation. Or, in other words, it would not be safe for any man to buy either whey, skim milk or buttermilk on the basis of values obtained in experiments where these foods were used in the most suitable proportions for giving the best results. Take foods such as grain or mill by-products, they can be bought in bulk and drawn to the farm at some convenient time when it is comparatively little hardship to send for them, and stored in quantity, which puts them upon a very different basis from foods of the character of dairy by-products.

I notice, in an editorial criticism of a letter sent in by a farmer regarding his experiments with pigs, that it was stated that the whey should be valued at at least 10c. per hundred. Personally, I would not think of paying 10c. per hundred for whey unless it could be obtained very conveniently, and obtained in exactly the quantities required. A man who attempted to buy whey in large bulk, at 10c. per hundred, would, I believe, find himself in an undesirable position before he got through with his feeding operations. The daily hauling and the perishable character of the product are the unsatisfactory features to be considered, and it must be remembered, in addition, that, when a large amount of whey, skim milk or buttermilk is used in proportion to the meal, a much lower value is obtained for these by-products than when they are used in smaller proportions. I trust that, in the discussion of this whole subject, these points that I have mentioned may be kept prominently in view.

O. A. C., Guelph. G. E. DAY.

Professor of Animal Husbandry. [* Reference explained on editorial page.—Editor.]

THE FARM.

To Double Production and Income on the Average Farm—II.

MORE THOROUGH CULTIVATION.

To get the best results from soil, we must study its needs and supply them, in order to win the possible success in our handling of the same. In order to secure continuously good returns from the farm, we must maintain a full standard of plant food, and so manage as to have it available when needed by the crops we grow. Thorough cultivation is a means to that end. Be our land ever so fertile, yet, if the growing crops cannot get the plant food they require readily, and at the right time, we cannot hope to be fully remunerated for our labors. To secure the earliest seed time, we must so till the land in the preceding season as to have as little labor as possible in making the fine tilth so desirable in the seed-bed. Of all the crops grown, the corn and root crops are the most expensive, and that for several reasons. They require more manure, more labor and greater care throughout the growing season. They are the cleaning crops; yet, how often weeds galore are seen in harvest and fall months, growing luxuriantly, maturing seeds by the million. In the early part of the season the weeds are usually kept in check, and the soil so stirred that seeds in the surface three inches are made to germinate. But later, the rush of the harvest, and other calls, cause the overlooking of the pests, which waited their chance to grow and develop, and later the seeds ripen and scatter over the ground. Thereby, the main object—that of cleaning the land—is defeated by the after-neglect following an excellent start. With the surface soil filled with weed seeds, ready to spring up as soon as conditions are favorable, what hope should we have for the tiny clover and grass plants the following season? The grain is then sown; and so are the grass seeds. They start out to fulfil their end by growing. The grain plants grow strong, and that quickly. The weed seeds also make good use of their opportunities, and get their full share of plant food and moisture. And what of the grasses? They also grow, but should drouth set in, which are the first to suffer? The grain has a strong lead, but the weeds are not far behind, and the tender grasses and clovers, if they outlive the struggle, are lacking in vigor, because of their want of food and moisture. Do we hear some

say, "But I plow my root land"? Well, what of that? Is it any better to plow? Think a moment. Down below the top three inches the soil is usually found with weed seeds in abundance. Turn it up, and does it mend matters any? It is only "out of the frying-pan and into the fire." Better, far better, to clean the surface soil thoroughly and leave it on top, keeping the weed seeds buried, to have them out of mischief for a time, where some may perish for want of air and light.

ROTATION OF CROPS.

Systematic cropping or rotation of crops is demanding our attention more and more as weeds are becoming numerous, and threaten to drive some out of business. Does it not seem certain that, whether willing to do it or not, we must, to our advantage, and in the very near future, follow somewhat in the steps of the British farmer. They, as a rule, never grow two grain crops in succession. Two years in clover and grass, one in grain, next the root crop, followed by grain, and seeded to clover and rye grass, complete their circle. Should we adopt similar methods, weeds would soon lose their hold upon our lands; and, with more land under grass and less acreage of grain, we could grow as much or more grain, and at the same time have more grass to better feed our live stock in summer. Too many acres in grain, and too few in grass is a very noticeable fault on many, many farms. Regular rotation, with the free use of clover seed, will help to make farm life more profitable and enjoyable in many instances.

IMPROVED SEED.

Seeds and seed-grain selection has quite a place in increasing production. At the Ontario Winter Fair, for years past, Mr. Raynor, of Ottawa, has placed before the public interesting object-lessons. In boxes containing a few inches of soil were to be seen wheat, barley, oat and pea plants, growing nicely. A description of the barley will answer our purpose. Three hand selections of grains were made, and planted at regular intervals. The large, plump grains produced strong, healthy plants, four inches in length, and all alike. The second selection, two and a half inches high, were fairly uniform, but not nearly so vigorous as the other. The third, that of inferior grains, showed a wonderful contrast; no one could hope for a single good, well-filled head from the tiny, stunted plants, about an inch long. The opinion was freely expressed that the hope of five bushels per acre more from the first selection than from the second was fully justified from the difference so clearly seen. That conceded, should we not aim at getting the large, plump seed for our fields? There is no loss in screening and fanning, so as to save but 40 to 50 per cent. of our grains as they come from the separators. That much good can be got from such selection, was satisfactorily proved last season on our farm. Barley was so prepared to sow our root land of the previous year, in which practically not a weed was allowed to grow or seed. The field was entered for competition in agricultural society contests, winning by 9½ points in the county, and by two points over the Province—a pleasing result of the care taken in cultivating the land, and also in selecting the seed.

When we consider that it requires 30 bushels of oats to pay for growing a crop, it follows that 40 bushels gives a profit of 10 bushels per acre; 50 will give 20 of a profit, and a 60-bushel crop will give 30 bushels, or give three times the income, while the production was increased but fifty per cent. from 40 to 60. It does not, however, always work so. A man grows ten bullocks, at a cost of \$40 each, and sells at \$50, making \$100 on the transaction. Again, he grows twenty, or

double his former production, at a cost of \$35, and sells at \$10, yet his income is stationary. In order to double our production and income at the same time, we must have good quality in our productions, as well as quantity.

Summing all up, draining will add a third to the average farm; good high-grade stock will add \$300 annually to the income; and feeding our products, with the benefits got from better cultivation, rotation of crops, with the selection of seed grains and seeds, will, if continued for ten to fifteen years, double the production of the average farm. And if that is done, we may rest assured that the income is much more than doubled if the quality of the products is kept up to a high standard. While there is profit in so doing, may it be pressed home to the young men the great satisfaction that is obtained from doing one's very best, and making his business on the farm a splendid success, being thus encouraged to strive more keenly to attain to the top rung in his life's work. A writer has well said, "The happiest people I know are they who get their chief pleasure out of the exercise of their own skill." When such exercise is practiced generally in this Province, and our young men can point out, with pardonable pride, the excellent productions resulting therefrom, then we shall have progress by leaps and bounds, and all Ontario shall become even more noted than now as the place, above all others, where prosperity reigns, and all will agree that its agriculture is second to none on earth.

JOHN CAMPBELL.

Victoria Co., Ont.

top. Would not advise building it in the cellar, as it causes dampness. Our house is a veneered brick, and certainly is the warmest and driest house to erect. It cost, without our own work included, about \$2,000.

LAWRENCE BELL.

Halton Co., Ont.

Sacrificing the Woodlands.

Editor "The Farmer's Advocate":

I am sending you, under separate cover, photos of a familiar scene in connection with one of Kent County's most important industries, which is fast disappearing. The photos are those of a few of the many teams employed by Geo. W. Brown & Sons, of Dresden, who furnish a large mill in Tupperville with immense quantities of elm, oak, maple, basswood and other varieties of logs from our native forests. Although the industry is fast decreasing, still there are several mills in the county manufacturing large quantities of logs and bolts into hoops, staves and heading for the making of apple and flour barrels, as well as shipping large quantities of lumber for various other purposes. While the original forest is vanishing, yet a number of far-seeing land-owners are reserving certain portions of their land, covered with second-growth timber, for future use. A number of prominent farmers are also taking advantage of the privilege afforded by the Ontario Government, and are securing seedling trees from the Forestry Department to plant certain portions of their farms, which movement will, in time, not only help to beautify our fertile county, but will prove profitable from a financial standpoint. I have a young forest of about 2,000 trees, consisting of walnut, butternut, chestnut, hickory, oak, maple, white pine, spruce, elm, catalpa and white ash. It is making such rapid growth, I am cutting down six acres of my large timber and selling it. Although my large woods appeared to be quite heavy, still, I have more trees growing on one acre of young forest than there are on five acres of my large woods. Hoping to see this movement advance rapidly, I wish you every success in the stand you are taking to encourage the reservation and increase the replacement of one of our most valuable and necessary assets.

Kent Co., Ont.

ALF. E. BROWN.

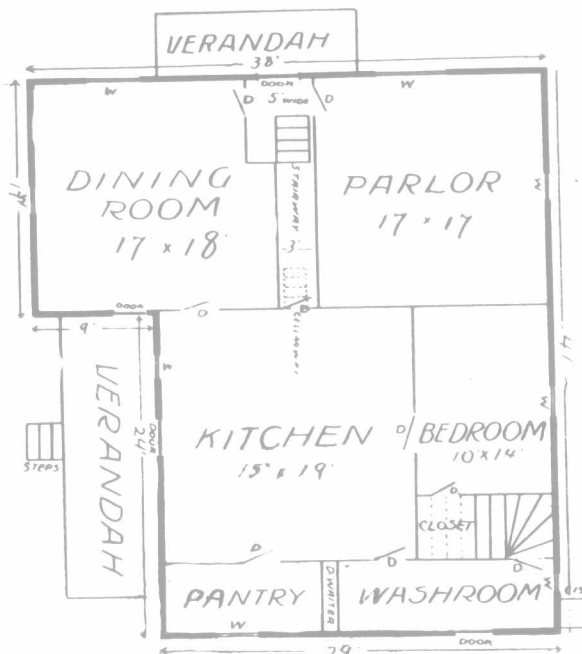
From an Indian Subscriber.

Remitting for two years' subscription, 1908 and 1909, a Lambton County Indian writes as follows. Would that all of the white race showed as much appreciation and as noble a spirit:

"I want to thank you for sending the paper regularly after my subscription had expired. It has been a great help to me. I am a young man, and an Indian. I was an orphan when but a lad fourteen years old, and I thank God that He has cared for me during the years gone by; and, believe me, I've gained a lot of knowledge of farming from "The Farmer's Advocate." It has been my adviser and instructor. I would like to tell you all my experience before I started to read your paper, but as I am not an educated young man, as some of my Indian brothers are, I have some difficulty in trying to make myself understood. I hope that the time may come when all the Indians in North America will be reading "The Farmer's Advocate."

Lambton Co., Ont.

NICHOLAS PLAIN.



Plan of Residence.

Property of Lawrence Bell, Halton Co.

A Halton County Farmhouse.

Editor "The Farmer's Advocate":

In reply to H. N.'s request for house plan, I thought perhaps ours might help him. Our house has all he asks for except the second bedroom downstairs, and for that he could turn our wash-room into a bedroom, if desired. The cistern is built close outside of wall at corner of wash-room, with a pump drawing the water right into the house. The cistern is of brick, one thickness, and then cemented, as well, with a cement



How the Woodland is Going.

MARCH 1, 1909

Modern Maple-syrup Making.

Editor "The Farmer's Advocate":

An industry that is rapidly growing into prominence in Canada is the production of maple syrup and sugar; and justly so, as sugarmaking comes in a time of year when other farm work is not pressing, and the trees require practically no care. The sugar bush is essentially one of our great natural resources. I know by experience that a sugar bush, equipped with a modern outfit for making maple syrup and sugar, is a profitable asset. The first operation in the sugar bush is tapping. As soon as the weather begins to warm up, about the middle of March, or a little later, I start tapping. I use a 16-inch bit, and bore about one inch deep. I tap a tree so that size will give as much sap as a 12-inch bore; at the same time, it does not injure the tree so much. The smaller the bore, the more quickly the tree will heal up. I have used a good many different spouts, but I prefer the No. 2 Grimm spout, as I find the tree does not dry up so quickly as with other makes. The manufacturers claim for them one-fourth more sap, and I think they will give it. I use a ten-quart pail, made almost straight. It will then stay on the hooks much better. I am fully convinced it will pay to use covers for the pails. I use a Champion evaporator, 5 x 16, and prefer it to any I have ever used or seen. It is a shallow boiler, easy to operate, and the siphons and interchangeable pans do away, to a great extent, with the lime or silica, and it is thus easier to keep clean. I use a gathering tank which strains the sap through a double sieve, just as it is gathered. This is one of the secrets in making first-class goods. Keep every particle of dirt out of the sap, and everything the sap comes in contact with should be made of tin. Boil the sap as fast as it leaves the tree, and draw off the syrup every five minutes. An evaporator that you cannot draw the syrup out of every five minutes is not what it should be. Long-continued boiling injures the quality of the goods. In marketing my goods, I put it up in cans to suit the purchaser, and put on each can a neat label containing my name and guarantee of purity; this gives the purchaser confidence in my goods. I tap 1,700 trees, and in an average season make 500 gallons of syrup. I have it arranged so that we never have to handle the sap but once until it is in syrup, so three men can do all the work in connection with it quite easily; therefore, I know there is a profit in it, but a man must make what the market demands. Pure maple syrup should be of a delicate, clean maple flavor, and a transparent amber color, free from all sediment; then it will command the highest price. The market is never overstocked with such goods, but one must not expect to use any old thing and make syrup any old way, and make a success of it. He must equip his sugar camp with the most modern outfit, and then do his best to make a better article every year. Every maple tree should be saved, and in doing so we are helping to preserve the forests. I think the Government should exempt all maple-sugar orchards from taxation, and thus help encourage the industry, as well as help preserve the forest.

Dundas Co., Ont. ANDREW REICHARDT.

[Note.—The writer of the foregoing article is said to be one of the best maple-syrup makers in Canada. He holds a gold-medal diploma from the Louisiana Purchase Exposition, St. Louis, 1904, and had a Government order at that time for 24 gallons. A sample of last year's make of syrup, sent to us recently in a bottle, was of a beautiful transparent amber color, free from the slightest trace of sediment. This is as maple syrup should and may be when modern methods are employed and strict attention paid to every detail, from the tapping of the tree to the marketing of the product.]

Re Acetylene Lighting.

Editor "The Farmer's Advocate":

I noticed a letter in January about acetylene lighting. The writer said it cost him \$15 per year for carbide. We have used it over five years. There are 26 lights altogether; from the time we light up until we retire, there are only two lights burning steadily, those in kitchen and pantry being used only until about 8 o'clock. If there is any company around, of course, there are more used, but I seldom use it in bedrooms. We keep three or four lamps to run around; you can't be stumbling along in the dark if going down cellar or upstairs, so, when we get there, we do not bother with gas, and it costs us \$40 per year, not counting coal oil. Ours is that kind of generator which feeds the water onto carbide. We would like to know what make of generator the writer uses; if it is the kind which drops the carbide into the water? We like the light, but find it rather expensive, considering the number of lights used, and think perhaps there may be some waste, or generator may be to blame.

York Co., Ont. A FARMER'S WIFE.

Getting Rid of Wild Oats.

A subscriber in Kent County writes as follows: "I have some wild oats on my farm. Is there any way of getting rid of them? I have kept the field in corn for three years, not knowing that they were wild oats till 4 years ago. What would be the best crop to keep them down? Do they come from the roots, as well as from the seed? Is there any danger of spreading in manure, if well rotted? Will they grow in timothy hay?"

Few weeds form a more frequent subject for controversy in Canada than wild oats. Since they propagate only by seed, the main purpose of operations must be to prevent further seeding, and to get rid of what seed already exists in the soil. The seeds remain germinable for a great number of years, and, therefore, it is necessary to bring them sufficiently close to the surface to induce germination, or else bury them so deep that future cultivation will not turn them up.

No line of cultivation is more effective in ridding the soil of fowl seeds than the growing of hoed crops, provided the land is properly prepared for each crop, and all foreign growth is kept down, or at least prevented from producing seed. Three crops of corn and the accompanying cultivation and hoeing should have resulted in doing away with most of the fowl seeds that were in the soil to the depth at which the plow was run. If no oats were allowed to go to seed for three years, there should be little trouble in future.

By way of guarding against the possibility of a few wild oats appearing next summer, the crop to be advised most strongly is an early-maturing variety of barley. This crop would ripen before many of the wild oats had matured. It would be well, also, to seed down to timothy and clover, so that the field could be left for a hay crop, and possibly a second year for hay or pasture. The hay, again, is ready for cutting before the wild oats have gone to seed, and animals eat the oats when they appear in the pasture. Furthermore, odd seeds that may have fallen during barley harvest are not buried beyond the influences that cause germination, and so sprout, and are destroyed in the hay or pasture. Then, by plowing and harrowing in early fall, and putting in a crop of fall wheat, or else another crop of barley the following spring, and again seeding down for one or two years, it should be within reasonable possibility to hand-pull all the wild oats that appear in succeeding crops.

The success in ridding infested ground will depend on the intelligence used in leaving different layers of the soil on top for successive seasons, and the precautions exercised in preventing further seeding of the pest. The crops grown will have to be regulated by the line of farming followed. Root crops or corn, kept absolutely free from weeds, and the growing of crops that are harvested before wild oats are sufficiently ripe to cause further contamination, are essential. In some cases oats or barley can be cut green for feed. The number of years taken to eradicate them will depend on the thoroughness of the operations practiced.

With regard to the remaining queries from our correspondent: No, wild oats do not come from the roots; they reproduce only by seed. Of course, a single seed may give several heads. This is due to the fact that the plant stools, just as do the cultivated grains, only, in most cases, more abundantly.

There certainly is great danger of spreading

wild oats in manure. While it is possible that thorough rotting of the manure will destroy the germ of oats, there is always a danger. Being protected so well by the stout hull, it requires considerable moisture and great length of time to insure destruction. Besides, there likely would be some seeds around the edges of the manure pile that remain perfectly sound.

As for appearing in timothy hay, a great deal depends on conditions. Wild oats will grow almost any place, provided they have the necessary moisture, heat and air supply to cause germination. If the stand of timothy were close and strong, it is possible that the young wild-oat plants would be smothered, or so crowded that they could not develop. Another reason for wild oats not putting in an appearance on timothy ground is that the seeds that lie close enough to the surface to germinate were induced to do so after the grain crop was removed the previous fall, and the young plants were destroyed during the winter. If the moisture supply were scarce from harvest until winter set in, these seeds might not sprout until spring, and many wild oats would appear in the timothy.

Electricity Increases Crops.

Following the article that appeared in "The Farmer's Advocate" last summer, dealing with the encouraging results obtained by Sir Oliver Lodge in England from the use of electricity in promoting plant-growth, comes a report telling of higher yields and earlier ripening, as shown by experiments conducted near Bristol, and W. A. Mackinnon, in a letter to Trade and Commerce Report, writes:

Experiments have been made in the vicinity of Bristol to decide whether or not electricity has any influence in forcing the growth of fruits, wheat and vegetables. In order that the effect might be correctly estimated, two crops were grown under similar conditions, one with and the other without the help of electricity. Surprising results have been obtained.

In the case of strawberries, on the first pickings, 40 per cent. more fruit was gathered in the electrified than in the unelectrified area, which proved, also, on analysis, to contain nearly twice as much sugar. With regard to tomatoes grown out of doors, the early ripening was remarkable, and the yield was thirty per cent. better on the electrified than on the check plot. Wheat in an electrified area of 7,675 acres yielded 32.5 bushels per acre, as compared with 26.15 bushels per acre in the area not so treated.

Some experiments have been carried out in greenhouses, also, chiefly devoted to cucumbers, with which the first results of electrifying was earlier bearing, the first month's picking having been found to yield double the quantity obtained from the check plot. This great acceleration, however, did not seem to exhaust the plants, which not only began earlier, but also continued to bear much later than those grown under normal conditions.

It will be seen that, if growers can, by means of electricity, place their goods on the market early, before a possible glut takes place, much better prices will be obtained than in the ordinary way. It may be asked whether or not the increased outlay on the apparatus is justified by the returns, but, at Evesham, where extensive experiments have been carried on during two or three seasons, the growers are more than satisfied.



Sugar Camp of Andrew Reichardt, Dundas Co., Ont.

A Study in Types of Prize Corn.

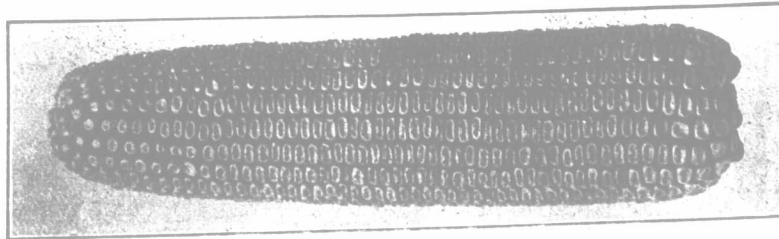
The engravings of corn in the ear, given in this issue of "The Farmer's Advocate," are from photos of first-prize corns shown at the recent Essex, Ont., exhibition. Ten ears were shown in each section, but we have simply used three each out of winning lots to illustrate the type. Professor L. S. Klinck, of the Macdonald College, and Prof. C. A. Zavitz, of the O. A. C., conceded it to be the best display of corn they had ever seen outside the United States "corn belt." These illustrations will amply repay study in connection with the seed-corn score-card, also published. While at the exhibition in question there were splendid samples of white and yellow flint corns, and yellow dents, a cursory glance disclosed the fact that the White Cap Yellow Dent was chiefly in evidence, indicative of its general popularity in South-western Ontario. There are several types of it, notably the small and the large, claimed by some to be variations of the one sort, but the former appears to be uniformly the earlier of the two. It is interesting to note that the grand champion ear of the show came, not from an old and well-established variety, but from a new hybrid yellow dent corn, which, while it represents the ideal of the originator, Mr. Coatsworth, is not yet considered by him sufficiently fixed in type to be put upon the market. Speaking generally, reliance cannot be placed upon a single ear of a given type reproducing its characteristics with certainty, unless the type has been fixed by breeding and selection, and is taken from a good-sized seed-plot, where the ears are mature and uniformly true to the type. Where persons do not grow their own seed corn, the better plan is to purchase it in the ear, and of a variety that does well in the district where it is to be planted. It is preferable not to shell it till near planting time, and the orthodox counsel is not to expose it to wet or frost. In any case, its germinating powers should be tested in good time, so that there may be no disappointment. That it has been thoroughly matured, and harvested and stored dry, appears, however, to be the fundamental prerequisite.

It is being realized that the multiplicity of varieties and types of corn is not only confusing to those in search of good seed for grain, fodder or ensilage purposes, but is fraught with injurious results in the mixing of sorts and imperfect kernels and ears as by the cross-fertilization of late and early kinds. The new Ontario Corn-growers' Association will do good service by simplifying the matter of varieties, establishing seed-corn standards, and greater uniformity of type. Seed-growers in the South-western Ontario corn area report a very considerable inquiry this season for the flint varieties. J. O. Duke and others say the call for good seed corn is coming earlier, and from all parts of the country.

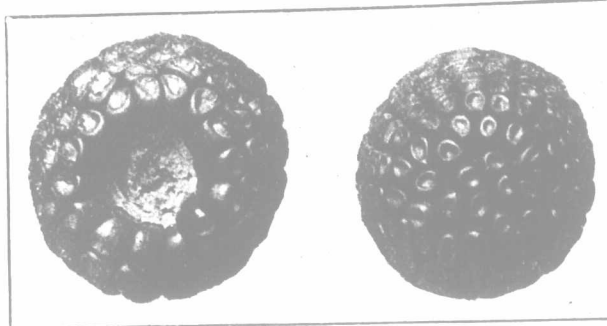
The following brief notes on the types of prize corn illustrated, and others, will be of interest at this time in connection with the selection of seed for the coming season:

Leaming.—Large, yellow dent corn, of early, medium and late maturing strains; heavy yielder both of ear and stalk; matured crop highly prized for ensilage; leafy and strong in stalk; matures best in Essex district.

White Cap Yellow Dent (large).—Very popular in northern and central Essex. Smaller in stalk than Leaming, but earlier; not so early as the small White Cap Yellow Dent; yields well in grain; some strains have white cob, others red,



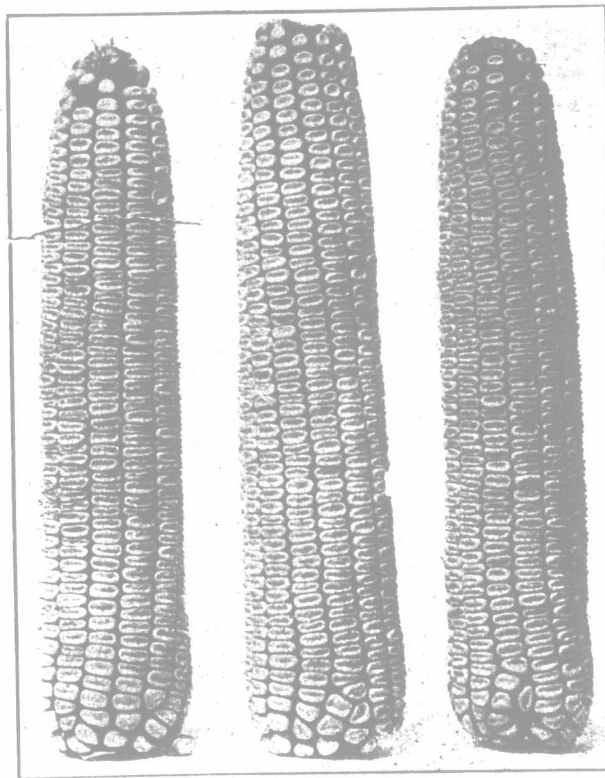
Grand Champion Ear Essex Corn Show, 1909.



Ideal Butt and Tip of Dent Corn.

White Cap Yellow Dent (small).—Matures earlier than large strain (less than 90 days); extensively grown and well liked for grain and fodder, stalks being rather fine; rougher tip and deeper kernel than large strain; does not stand so well as Leaming.

Bailey's Yellow Dent.—Early variety; large, short ears, yielding well. An old sort, fairly



White Cap Yellow Dent (Large).

large in fodder, but stands well, and is well liked for ensilage in central Ontario, and northward to Peeswater.

Reid's Yellow Dent.—Rank grower; popular along Lake Erie shore; late for matured corn or ensilage in most districts; heavy yielder of grain; high percentage of grain to cob.

Hybrid Yellow Dent.—Originated by J. H. Coatsworth, Essex Co., who crossed an early yellow dent of merit grown in the neighborhood, but shorter in grain, on the Reid's Yellow Dent, in 1906; three or four good ears selected for seed first season; second year about quarter of an acre was planted; in 1908, seven acres. The cob is red, and last year there were no soft ears in the crop. It was planted on June 2nd, 1908, and was hard in grain and ready to cut on September 15th; lower leaves turning brown; cut on 18th, overripe. The fodder stands well, and is fully equal in height to large White Cap, and is leafy. Mr. Coatsworth does not consider it yet sufficiently well established in type to put out as a variety.

Grand Champion Ear.—Coatsworth Hybrid Yellow Dent. (See foregoing notes.)

Compton's Early.—A well-known variety over large area of Canada; 12-rowed yellow flint; a favorite ear corn, also used by some for ensilage purposes.

Dakota Flint.—An eight-rowed white flint; resembles Longfellow, but slightly more tapering ear; leafy, and used for ensilage; grain excellent, and used for hominy.

Howie.—An old corn in Essex. Yellow dent,

with red cob; heavy grain yielder; favorite both in north and south Essex; stands frost well; matures in about 90 days; taller in stalk than Early White Cap; leafy, and excellent for ensilage.

Butler Dent (early).—A yellow, well-known variety; ripens in Middlesex, Ont.; small ears; liked for its earliness, and is easy to husk; medium in stalk-growth.

Silver Mine.—A large, pure white dent variety; showy ears; new in Canada; very leafy, and late; matures with late Leaming; heavy yielder of grain and stalk.

The ideal butt and tip illustrated shows the perfection which may be attained in the development of the ends of an ear of corn, the latter reminding one of the well-woolled face of a Shropshire sheep.

Scoring Seed Corn.

In the Essex High School Short Course, and at the recent corn exhibition and convention, the appended score-card for seed corn was used. It was based on the Iowa State card, adapted to Canadian conditions. At the morning sessions, for four days, hundreds of corn-growers, old and young, veterans and amateurs, made a critical study of ears with this card, under direction of Prof. L. S. Klinck, of Macdonald College, who, as a practical corn-grower and corn scientist, stands in the front rank of experts.

SCALE OF POINTS.

Trueness to Type.—The ten ears in the sample should possess similar or like characteristics, and should be true to the variety they represent. Possible score, 10 points.

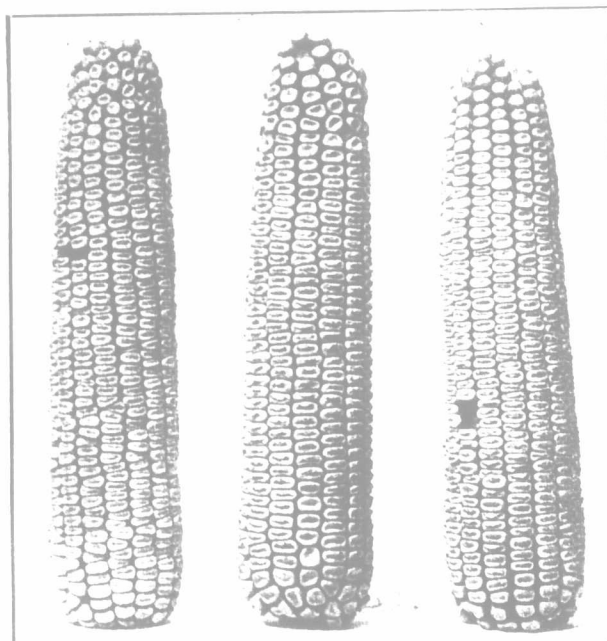
Shape of Ear.—The shape of the ear should conform to the variety type. The ear should be full and strong in the central portion, and not taper too rapidly towards the tip. A full, strong ear indicates strong constitution and good yield. Possible score, 10 points.

Color of Kernels.—The color of the grain should be true to the variety, and free from mixture. Differences in shade of color, such as light or dark red, white or cream color, must be scored according to the variety characteristics. Possible score, 5 points.

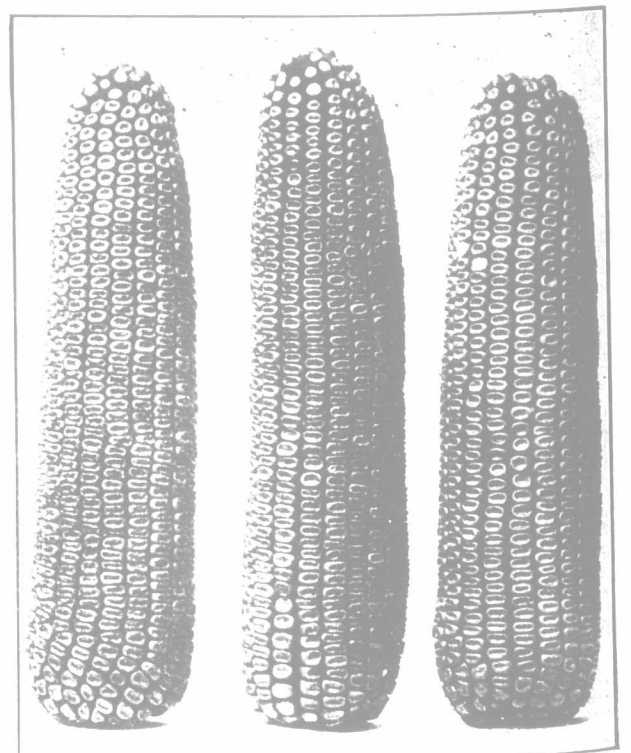
Color of Cob.—An ear with a white cob in yellow corn, or red cob in a white corn, should be disqualified, or marked zero, except in the case of White Cap Yellow Dent. This mixture reduces the value of the corn for seed purposes. It indicates lack of purity, and tends towards a too wide variation in time of maturity, size and shape of kernels, etc. Possible score, 5 points.

Vitality, or Seed Condition.—Seed corn should present a healthy, vigorous appearance, and give evidence of being capable of producing strong, vigorous growth and high yield. Starchy, immature or pointed kernels are objectionable, as are also kernels with chaff or cob adhering to the tin, or kernels from which the tin-cap has been removed, exposing the black covering of the germ. Blistered germs, and shrunken, blistered backs are the strongest evidences of impaired vitality. Possible score, 15 points.

Tips of Ears.—In form, the tin should be regular, and the kernels uniform in shape and size. The proportion of tin covered or filled must be considerable. Long, pointed tips, as well as

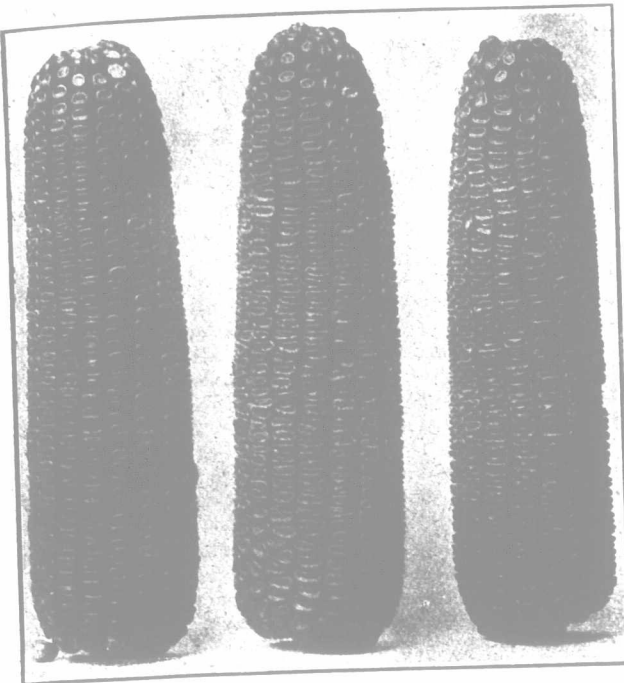


White Cap Yellow Dent (Small).



Reid's Yellow Dent.

MARCH 4, 1909



Bailey's Yellow Dent.

blunt, flattened or double tips, are objectionable. Possible score, 5 points.

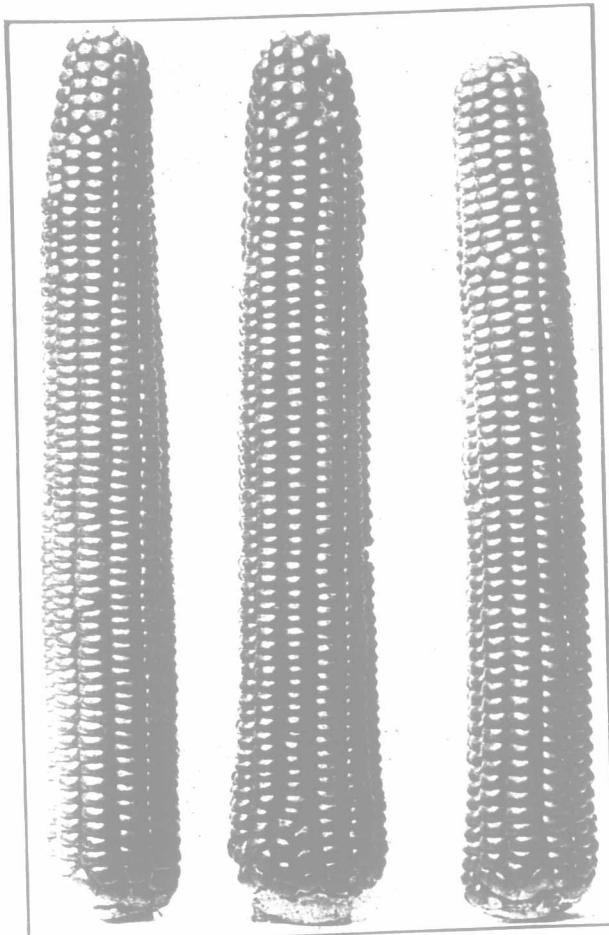
Butts of Ears.—The rows of kernels should extend in regular order over the butt, leaving a deep depression when the shank is removed. Open and swelled butts, depressed and flat butts, with flattened, glazed kernels, are not desirable. Possible score, 5 points.

Uniformity and Shape of Kernels.—The kernels should be uniform in size and shape, making it possible to secure uniformity in dropping with the planter. The kernels should be not only uniform on the individual ear, but also uniform with each ear in the sample. They should also be uniform in color, and true to variety type. The kernels should be so shaped as to touch from tip to crown. The tip portion of the kernel is rich in protein and oil, and hence of high feeding value. Kernels with a large germ insure a strong, vigorous growth, as well as richness in the quality of the kernel. Possible score, 15 points.

Length of Ear.—The length of ear varies according to variety type and the characteristics sought for by the individual breeder. Uniformity in length is to be sought for in a sample, and a sample giving even length of ears should score higher than one that varies, even if it be within the limits. Very long ears are undesirable, because they usually have poor butts and tips, broad, shallow kernels, and hence a low proportion of corn to the cob. Possible score, 5 points.

Circumference of Ear.—The circumference of the ear should be in symmetry with its length. An ear too great in circumference to its length is generally slow in maturing, and too frequently results in soft corn. Measure the circumference at one-third the distance from the butt to tip of the ear. Possible score, 5 points.

Furrows Between Rows.—The furrows between



Compton's Early Flint (Yellow).

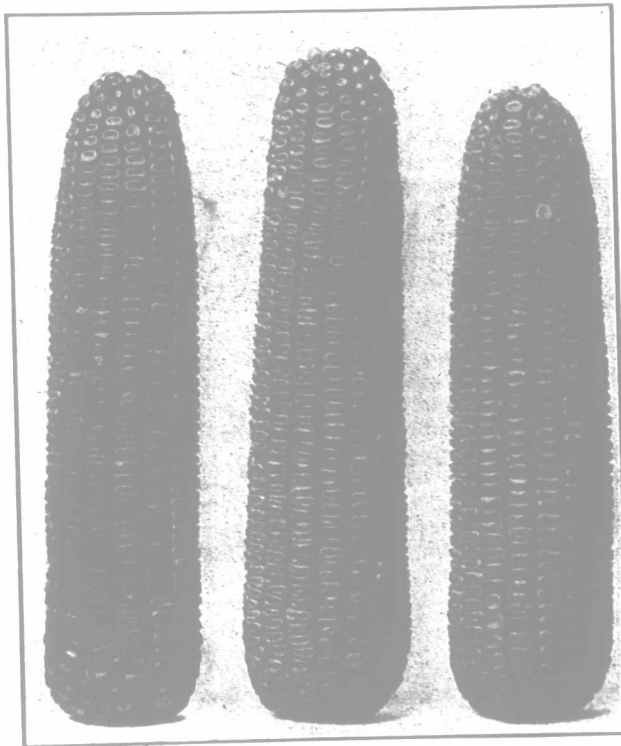
rows of kernels should be of sufficient size to permit the corn to dry out readily, but not so large as to lose in proportion of corn to cob. Possible score, 5 points.

Space Between Tips of Kernels at Cob.—This is very objectionable, as it indicates immaturity, weak constitution, and poor feeding value. Possible score, 5 points.

Proportion of Corn to Cob.—The proportion of corn is determined by weight. Depth of kernels, size of cob, maturity, furrows and space at cob, all effect the proportion. In determining the proportion of corn to cob, weigh and shell every alternate ear in the exhibit. Weigh the cobs and subtract from the weight of ears, which will give weight of corn. Divide the weight of corn by the total weight of ears, which will give the percentage of corn. The percentage of corn should be from 85 to 86. For each per cent. short of standard, a cut of one to one and a half points should be made. Possible score, 10 points.

Total possible score, 100 points.

The varieties of corn scored, and the name of scorer, are written at the bottom of the card, and to the right of the "Possible Score" are five columns, ruled off, for as many different ears. Readers will do well to study the scale in connection with the engravings published of prizewinning corns.



Coatsworth Hybrid Yellow Dent.

The Corn Vocabulary.

Following is a list of the terms for describing corn, used by expert corn-growers, corn-judges, and in the corn-schools:

Shape of Ear.—Cylindrical, tapering, very tapering.

Length of Ear.—Long (over 9 1/2 inches), medium (7 1/2 to 9 1/2 inches), short (less than 7 1/2 inches).

Circumference of Ear.—Large (over 7 1/2 inches), medium (5 1/2 to 7 1/2 inches), small (under 5 1/2 inches).

Color of Kernel.—Yellow, white, red, variegated.

Indentation of Kernel.—Smooth, dimpled, deeply-dented.

Shape of Kernel.—Wedge, round, square, parallel-sided, pointed.

Length of Kernel.—Long, medium, short.

Number of Rows of Kernels.—Many (20 or more), medium (11 to 20), few (under 14).

Space Between Rows.—(At crown of kernel)—Wide, close; (at cob) wide, close.

Arrangement of Rows.—Distinct, paired.

Tips.—Covered, exposed.

Swell of Butt.—Deeply-rounded, moderately-rounded, flat.

Size of Butt.—Enlarged, uniform.

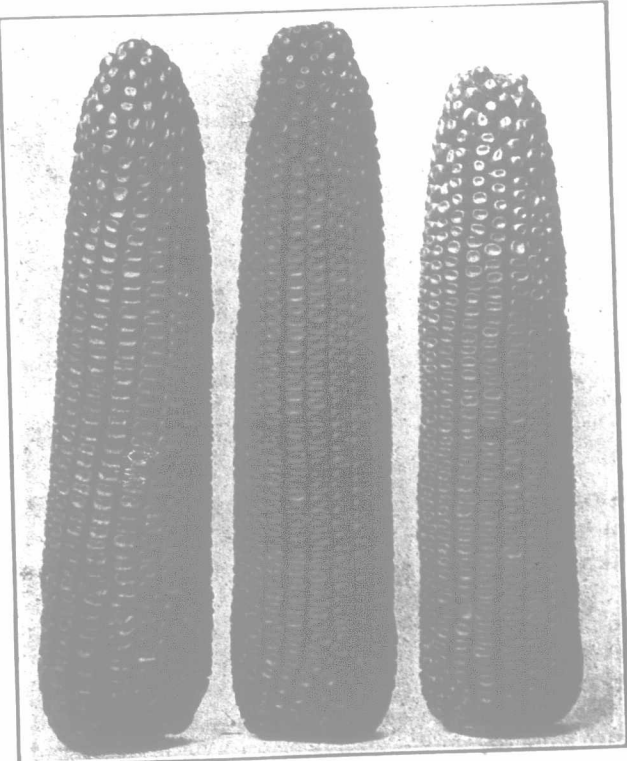
Size of Shank.—Small, medium, large.

Size of Cob.—Small, medium, large.

Color of Cob.—Red, white.

Cement vs. Clay Tile Controversy.

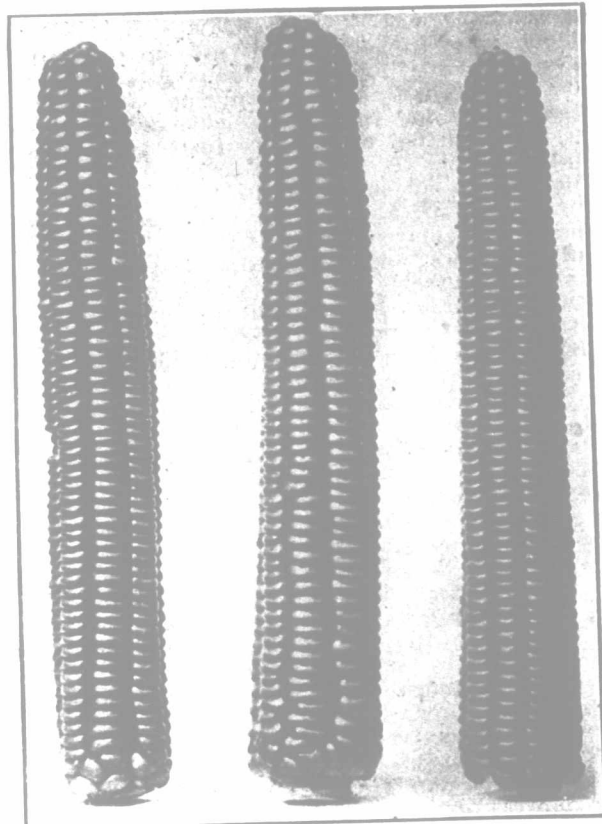
Editor "The Farmer's Advocate":
Early last year, a conflict between "Cement" and "Clay" interests in the United States was precipitated by a paper read by G. G. Wheat, of Emmetsburg, Iowa, at the Convention of the Iowa Brick and Tile Association, held at Des Moines, Iowa. Mr. Wheat claimed that cement tile for sewerage or underdrainage purposes are not likely to prove durable. He based his conclusions to some extent on observation of a few cases where cement sewers and cisterns had given out, but chiefly on the results of some laboratory tests made at Cornell College, Mt. Vernon, Iowa. The chemist, Dr. Nicholas Knight, found that a



Leaming (Early).

piece of well-cured cement tile, six months old, placed in distilled water for 72 hours, dissolved at a rate which, if kept up continually, would carry away all the cement in the lump in 3 3-5 years. If the lump were pure cement, instead of a 1-to-5 mixture, it would all dissolve in 18 years, if the same rate continued. Subsequent tests in well water, which contained some salts, as all well water does, gave a somewhat slower rate of solution. And hence Mr. Wheat concluded that an ordinary cement tile, with water passing through its pores (cement tile are much more porous than clay tile) for a considerable part of the year, would crumble like so much sand in a "very few years," to quote his exact words. As cement tile are just coming into use for underdrainage purposes, it is too soon to refute or confirm this from experience. "Brick," a periodical printed in Chicago, and devoted to clay-products interests, published Mr. Wheat's paper, together with another article from him, and considerable other matter, in pamphlet form for distribution, the title being, "The Life of Portland Cement Sewer Pipe or Drain Tile."

"Concrete," a Detroit periodical, took up the other side of the case, and published a small booklet entitled "Cement Tile," devoted to the refutation of the arguments set forth in the Brick pamphlet. It points to the fact that in many places cement sewers, installed many years ago, are still in perfect condition. It claims, further, that Mr. Wheat's observations and experiments have been limited, and, moreover, biased, since Mr. Wheat is manager of a clay-tile factory. Perhaps the strongest point it makes, however, is that, taking Mr. Wheat's own figures for the different tests, the solubility of cement falls off rapidly, that only a very small portion of the cement is soluble, and that when this small



Dakota Flint (White).

amount is removed, no more will dissolve, and that, therefore, there is no danger of the tile disintegrating.

Anyone interested in the matter might procure a copy of the pamphlet and booklet referred to, but, after reading them, one is left practically where he was before, wondering whether cement tile will really prove durable. At the present time, investigations are being carried on at various Colleges and Experiment Stations to aid in arriving at an answer to the question. A year or two should settle it pretty conclusively. In the meantime, and while cement-tile machinery is being perfected, it might be well for Canadian farmers to go slowly in the matter of adopting cement tile for underdrains. WM. H. DAY.
Ontario Agricultural College.

Application of the Summer-fallow.

Editor "The Farmer's Advocate":

The successful farmer studies the peculiarities of his fields. Drainage, weeds, physical condition and fertility must be considered. Individual cases require specific treatments. No amount of investigation or research warrant the laying down of dogmatic rules. Methods of the present differ from those of a decade or two ago. Changed conditions necessitate new systems of farming. Some still advocate summer-fallowing, while others have discarded this practice. The question is worthy of consideration.

Briefly, the objects of soil cultivation have ever been the same, viz.: The keeping in subjection, and ultimately the extermination of the many undesirable and troublesome weeds; the preparing of the soil in most suitable condition for receiving the seed sown, and furnishing the crop with most congenial conditions of soil, and conditions most conducive to large production; the liberating of nature's present supply of plant food in the soil, without undue exhaustion on the supply, and at the same time adding, so far as practical, other plant food gathered from the residue to previous crops and the surrounding atmosphere.

True, the methods of cultivation followed on different soils must vary to obtain the same objects of cultivation. The difference in physical condition and chemical content of different soils render this necessary. Not only do varying soils necessitate various methods of cultivation, but the demands for a variety of crops, as needed in the different systems of agriculture, as follow the accordant changes of time and existing world conditions, a new system imperative in obtaining maximum yields to sustain those depending on the production of the soil. In the earliest stages of cultivation of our farms, no thought was taken of conserving the supply of plant food in the soil, or of adding more thereto. The pioneers took what the soil yielded them, forgetting that they owed the soil anything in return. Later, as they continued such methods of cultivation, it became evident that the soil required some consideration, and the first impulse was to rest the soil, by taking an area each year of the farm, and allowing it to be idle for a season, in the meantime expending some effort at cultivation on this area throughout the summer. This was the advent of the summer-fallow. These farmers were offered no other alternative. They had not an abundance of barnyard manure, and the clover, or any of the leguminous crops, were not grown; yet, they must add fertility by cultivation and rest for a season. They had not the corn crop as a means of cleaning the soil through the cultivation it receives, and so they were quite justified in summer-fallowing.

The practice of summer-fallowing was carried on for some time, and many a worn-out farm, so to speak, was rejuvenated in this way, and made again productive and clean. But later it began to dawn upon the foremost agriculturists that this was rather an extravagant use of the cultivated land on the farm of limited area, and, accordingly, they looked about for some crop, the cultivation of which would accomplish the end in view, and at the same time make a handsome yield of fodder on the area treated, as, about this time, the need of some bulky fodder was being realized. That the corn crop has fulfilled these requisites to the letter, the most conservative must admit. Still, all our farms do not grow corn, many more do not grow the crop in large enough acreage to accomplish much in cleaning the farm, and many others who do grow the crop, even over a large acreage, do not practice that system in the cultivation and care of the crop necessary to improve the soil or rid the land of weeds that infest it. Through the medium of the summer-fallow, many farms have been restored to productiveness and high fertility; but, with the advent of the corn crop, and crop rotation, and as the worth of the clover crop became more fully realized, the exponents of the new method almost gave the impression that summer-fallowing was decidedly out-of-date; that it could be relegated to the background, and that

the farmer who followed such a practice was somewhat antiquated. It is to be regretted that, by many, this important and effective system of cultivation should have been so viewed, for, by adopting the new system, and by failing to follow it properly—this being the only reason—not following out the cultivation of these crops thoroughly, they have allowed their work to retrogress, rather than progress.

In what way does the practice of summer-fallowing fail to commend itself in present-day farming? During the past two years, owing to the general scarcity of fodder, the loss of a crop on the area fallowed would have been a decided objection, and this applies to all other years. Again, a fallow needs attention, very often at inopportune times, throughout the season, when other work is very pressing, and tends to prolong the work of cultivation too much throughout the season. When a large area of corn is grown, the attention to both areas necessitates more time than can conveniently be spared. It is difficult to save a dressing of manure for this land until needed, without suffering considerable loss from fermentation and leaching; and, lastly, if no manure is applied, whatever improvement is effected in fertility must be derived through the weathering of the elements of the soil, and the exposure and constant cultivation received, thereby rendering soluble the insoluble plant food stored in the soil. This accomplished, there is danger of much of the fertility being lost through leaching if the fallow is worked early in the season, and then left bare before another crop in the following season can be grown that would avail itself of this supply of soluble plant food. The loss of plant food through leaching, the excessive evaporation of soil moisture, the undue weathering of the elements of fertility, and the prolonging of the work of cultivation throughout the season, are the uncommendable features of the practice of bare fallowing.

Where the system followed is more along the lines of green-manuring, the results are somewhat different. Where green manure is used, much humus can be added, and the physical condition of the soil very much improved. Plant food can be added, and fertility increased if the crops grown are leguminous—i. e., peas, vetches or clover. By following this course, we would be adding nitrogen to the soil, aside from the supply in the humus that would accrue from the residue of the crop turned down.

Again, this system is most effective in smothering out weeds. A patch of couch grass, however well established, can be destroyed in a season in this way, viz.: First, partial fallow, and later a stout stand of some crop that is a very effective smotherer.

We cannot well say, as yet, that the Province has no further need for the summer-fallow. There are many areas in a most deplorable condition, and many farmers who are not sustaining the fertility of their farms without the summer-fallow. Perhaps they cannot do so with the crops they are growing. The fact is they are not doing it, and if they choose to use the summer-fallow as their medium of improvement, all well and good. With the new weeds that are continually attracting our attention, we have yet to rely on the summer-fallow. For instance, the perennial sow thistle, that is making such alarming spread, and defying all ordinary means of eradication. In Bulletin 168 recently issued by the Ontario Department of Agriculture, a most excellent treatise on this pest, we notice, after suggesting various methods of eradication, the author finally says: "If these methods fail, resort to the summer-fallow, a method extremely efficacious with all sorts of weeds, including the perennial sow thistle. At the present time, in Ontario, many farmers are resorting to this method, considering it, on the whole, the most economical and most effective."

The same applies to a great many of our most troublesome weeds, that are slowly but surely gaining ground. A summer-fallow, properly managed, will, in one season—if the season be not too unfavorable—kill the worst of them. I do not wish to give the impression that I think the summer-fallow absolutely necessary to successful farming. We do not make a practice of summer-fallowing on our farm, because we can keep weeds in check and constantly build up fertility in our fields through systematic crop-rotation, with a large area of hoed crops. Many farmers, however, are not in position to do this, and to these I would say, rather than see your farm go back, summer-fallow; and, to the farmer who has a particularly dirty or out-of-condition piece of land, if you have satisfied yourself that you cannot clean it with a crop, by all means summer-fallow it at once, and so stamp out the source of contamination to the balance of the farm. If we had a piece of land gain the upper hand of us, we would certainly summer-fallow it at once, but, while we can progress in building up fertility and weed eradication, and at the same time harvest upwards of fifteen tons per acre of most excellent fodder in the form of corn silage, we deem this the most expedient course to follow.

Dundas Co., Ont. CLARK HAMILTON.

THE DAIRY.

Red-letter Days of Mrs. Dairy Cow—II.

Editor "The Farmer's Advocate":

The preparation of the cow for parturition in the second, and in all succeeding periods, requires the closest consideration. Where the question is reduced to a system, serious trouble is rarely encountered. As a small boy, the writer can remember each summer acting as pall-bearer to the funerals of two or more of the best cows. Always was it milk fever. Mammary complaints were numerous, also. In the past ten years, however, thanks to the findings of careful observers in the veterinary field, with from forty to fifty cows freshening each year, not one has been affected by this hitherto dread malady.

Should the cow be due to freshen during the summer months, when pastures are rich and the temperature high, she should be confined some two weeks before her calving date. If in extra high condition, a dose of a pound and a quarter to two pounds of Epsom salts, with an addition of ginger and molasses, should be administered. The use of purgatives should not be made a rule, however, for, with proper management, they are needed only in extreme cases. The diet of the cow should be sparing, bran mashes and clover hay being freely used. Each afternoon she should be turned to pasture about an hour before the herd is driven in for milking. She will straightway go to find her companions, and in a short while will follow them back, and be confined in her box stall or paddock. Thus she will receive exercise, and have time to crop a few mouthfuls of grass. Exercise and a laxative condition naturally induced tends to leave the cow in the most suitable condition for parturition. Two hours after calving, the mother should receive a warm bran drink. This will tend to move the bowels, and aid the healthy expulsion of the placenta. Bran mashes, a little clover hay, and a few handfuls of green food, may be given for the first week. Always let it be "a little," for the animal is in what might be termed a normally abnormal state, and should be treated accordingly. The cow will, of course, have a greatly-distended udder. The temptation on the part of the attendant to relieve her evident distress is great. For at least forty-eight hours, however, the milk should not all be removed. The calf, after a little wobbly prospecting, will begin to account for some of it, and only when it is deemed absolutely necessary should sufficient milk be drawn to give relief. In such cases, do so a little at a time, and often. Each stableman should have this fact rigidly impressed upon him; and, in valuable cows, or those whose condition would predispose mammary complications, it is best that the owner personally supervise this detail. Without entering into a discussion of causes, suffice to say that seventy-five per cent. of milk-fever cases are due to this at-first-sight humane act of relieving a cow of her milk. The preclusion of digestive complaints and such troubles as caked udder or garget, will be largely governed by the feed of the next two weeks. Gradually the cow's system reaches its every-day tone. Grade her feeding to correspond, and along the lines mentioned. The precipitate and heavy feeding of a rich ration, meal or grass to a fresh-calved cow will invariably cause complications.

Another point which, for sequential effect, might better have been discussed before the above, is that, with many heavy or persistent milkers, difficulty is met with in drying them off in sufficient time that they may enjoy six or eight weeks of a holiday. The owner, usually through carelessness, allows the cows to continue milking until, sooner or later, she goes dry of her own accord. It may even chance that she is still milking when she commences to "spring." During her next lactation period, the owner wonders that her production is much smaller, that her milking period is much shorter, and that she begins, in many cases, to take on fat. Now, while it is often true that heavy producers tend to make their best showing on alternate years, there should not be the discrepancy that often exists. The wear and tear upon a cow's system necessary to produce from eight to ten thousand pounds of milk is very considerable, and, unless man allows her the necessary recuperative period, nature steps in—stubborn, as usual—and the cow gets orders to "just turn round and take a rest" the next year. For a short time after cessation of milk flow, the cow's feeding must be such as to prevent her "coming to her milk" again. Once the function is temporarily beyond the influence of food stimulus, however, her food must be increased, either, in summer, by luxuriant pasture or supplemental feeding, and in winter by a light, well-balanced meal ration, and succulent foods, such as silage and roots, with clover or alfalfa hay.

When all is said and done, the important item in the dairy cow's management is the individual

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attention which she receives. Too many owners regard their cattle purely as a bunch of cows, instead of a collection of individuals. For the successful dairy cow has her scale of differing traits, characteristics, capabilities, and even whims, just as surely as has her owner. To cater to these to best advantage, the dairyman must not only be a cow-feeder, but a cow-student as well.

From the early portion of this article it would be inferred that it was to deal with the feeding of a dairy herd. Instead, it has had more to do with some of the crises in the life of the cow, with the "go-slow" places in her management, where an ounce of prevention is fully up to its proverbial standard of value.

Carleton Co., Ont. GEO. B. ROTHWELL.

Constructing Model Stable.

Editor "The Farmer's Advocate":

Kindly suggest through "The Farmer's Advocate" a plan for a small barn to accommodate about ten dairy cows, bull and calf pen, embodying the best ideas for securing light, ventilation and economy of labor; in short, a model barn, at a moderate cost, adapted to the soiling system, dry and green fodder and bedding to be cut, small root-house, two siloes (only one to be built at present); feed and cutting room. Barn to have manure shed, and passage between it and present stable, in which I could have milk-room, for the floor is about three feet above ground. Land slopes slightly to north-west. Kitchen-garden on north side. Want accommodation for pigs to utilize separated milk. Would like to keep in view the future enlargement of barn. Am using two-horse-power electric motor. No grain crop grown; manure spread daily. I want a place to store sawdust for summer bedding; also shed for implements; 20-acre village farm.

J. A. C.

Ans.—A building such as required by the above correspondent would, I think, be spoiled were it built so as to permit of extension as the herd grew. I would suggest, therefore, that it be built large enough to accommodate almost as many cattle as your correspondent thinks he will eventually be able to handle, and the spare room, if any, devoted to calves, giving them rather more room than is really necessary. When herd increases, things would be a little more crowded, but still quite sanitary and comfortable. The plans for basement and upper story submitted herewith are quite self-explanatory, but a few additional remarks would probably serve to make matters somewhat clearer.

To begin with, I would suggest that the walls be built of four ply of lumber, with air-space, and three or four papers, or else stone, brick or cement, and sheathed with wood inside. The ceiling should be perfectly free from beams or obstructions; that is, the joists should be ceiled underneath, as well as planked on top, and, in addition, I would suggest that a couple of papers be used in the ceiling. This will help prevent precipitation of moisture or sweating in cold weather.

The windows on the south and west side should be as wide, as high and as numerous as the requirements of strength will permit. The passages I have indicated are five feet. This is amply wide, and possibly four feet would do for some of the passages, but, for all the difference it would make in the cost of building, I would recommend adhering to five feet in width.

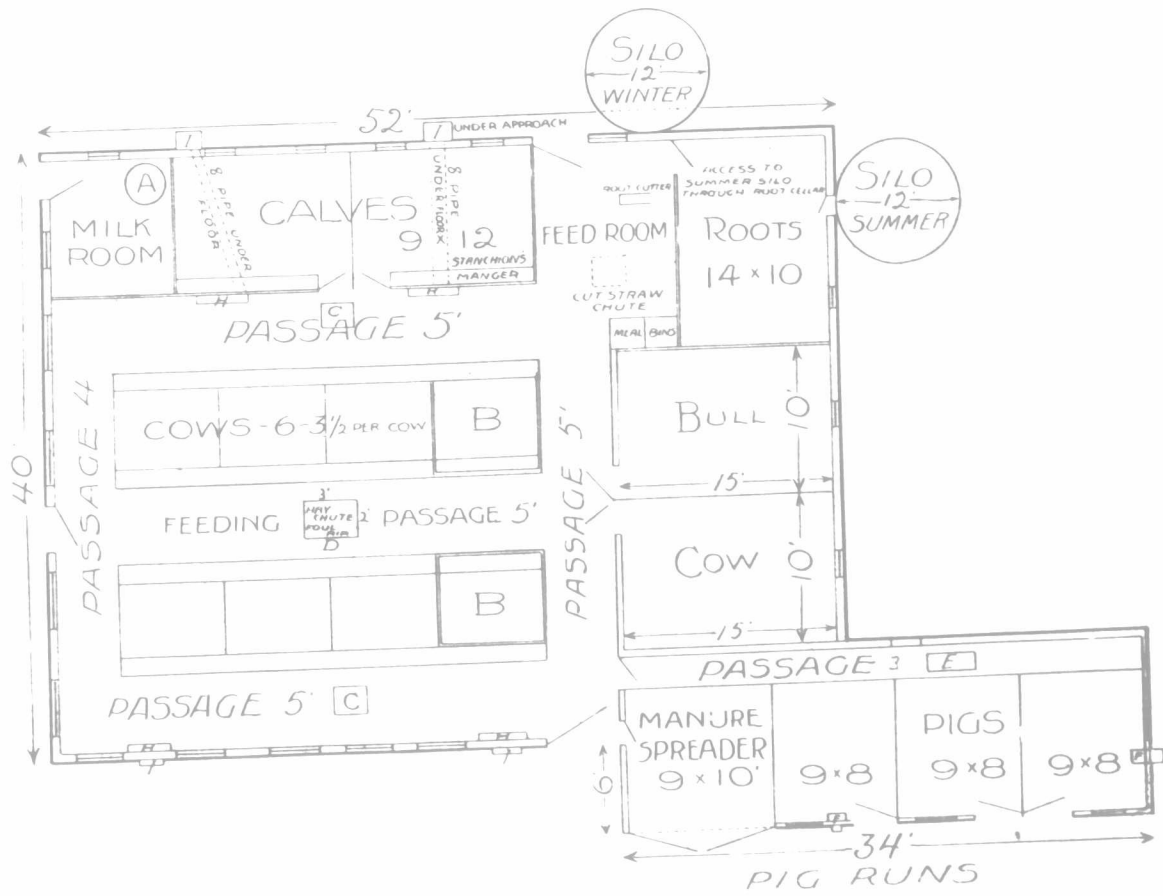
The inlets for fresh air should be located as indicated in the plan, and I think the size given is about right—that is, three feet long and six inches wide inside, and two feet long and six inches wide outside. The foul-air outlet may be constructed with a door in the side next the passage or driveway above the bins, so that long hay may be dropped through to feed the cows. A key, controlled by ropes, should be placed in this foul-air passage about three feet above the said door, in the side thereof.

"C C" are traps or chutes opening into the driveway above, and may be used for letting down straw.

The upstairs plan requires very little explanation. I would suggest a power shaft about 1 1/2-inch diameter, running along above the doors, in order to transmit power from one end of the building to the other. The motor being an electric one, would naturally be easily moved, and so permit of filling the silo from this floor, which would greatly save in power required to drive the cut-box or blower. Windows could be put in this story to suit appearance and requirements.

The door at the end of the feed passage of the lower story is intended for convenience in feeding green feed in summer. If location of the door at this point is not desirable or convenient, then the green food could be let down by the hay chute or be brought in through the feed-room by way of the cut-straw chute, or through the door beside the approach.

The intakes for fresh air which pass under the pens should be 6 or 8 inches in diameter, and should be laid at least six inches below the fin-



Ground-floor Plan.

- A.—Separator, driven from overhead shaft in barn.
- B. B.—Might be used as calf pens, if not required for cows.
- C. C.—Straw or bedding chutes.
- D.—Ventilator or foul-air outlet; could be used also for feed chute for long feed or green feed in summer.
- H.H.H.H.—Fresh-air inlets, six inches above floor level, each six inches wide and three feet long.
- I.I.I.I.—Fresh-air intakes, six inches wide and two feet long.
- E.—Ventilator and straw chute.
- F.F.—Fresh-air inlets for piggery.

ished-floor surface. The intakes on the opposite sides should, if possible, pass under the wall a few inches below the floor surface, and should come out a few inches above the floor surface.

J. H. GRIDDALE.

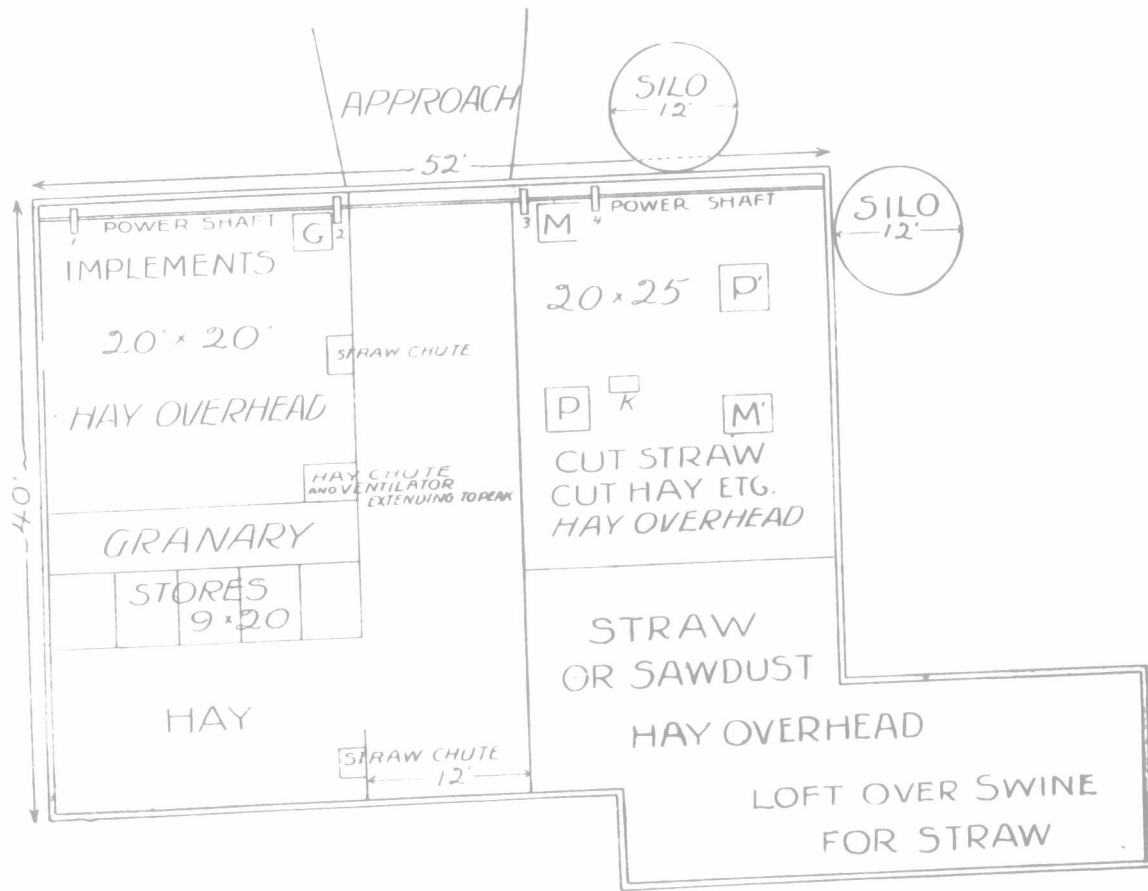
Food Inspector J. J. Costigan, of Montreal, took action against Geo. Dumais for manufacturing oleomargarine. The defendant pleaded guilty, and was fined \$400. Ingredients used in his factory, including several barrels of oil, a quantity of beef-fat, lard, colorings, etc., were ordered to be destroyed.

Dip Prints in Buttermilk.

Editor "The Farmer's Advocate":

I noticed on page 230 of the February 11th number of "The Farmer's Advocate" an item about butter-printing. As an experienced hand at making butter into prints, I do not agree with your answer of scouring print with salt and water, as the salt would rather make it stick than keep it from sticking. The best way is to scald prints and ladle with boiling water, and then, when butter is ready to put in prints, dip the print in the buttermilk, and it will not stick.

M. CHARD.



Second-floor Plan.

- Pulley 1, for cream separator.
- Pulley 2, for grinder.
- Pulley 3, for straw cutter.
- Pulley 4, for driving.
- G.—Grinder.
- M.—Motor in winter.
- M'.—Motor in summer, to drive cut box to fill siloes.
- P.—Cut box in winter, for straw feed, etc.
- P'.—Cut box in summer, for filling silo.
- K.—Meal chutes above bins in feed room.

Dairy Situation, Eastern Ontario.

(Second part of an address by J. A. Ruddick, before the Eastern Ontario Dairyman's Convention at Prescott, 1909.)

There is another question, somewhat related to the cool-curing of cheese, on which I have received some inquiries during the past year, and which may be of some interest to this meeting. I refer to the proposal to erect central warehouses at points in Eastern Ontario, where the cheese could be collected for the purpose of inspection and sale. It has not been made at all clear whether such proposed warehouses are intended to be cool-cheese-curing rooms or cold-storage warehouses. Most probably, the proposers have not been very clear on the point themselves. The distinction is a necessary one, however, because the two things are entirely different.

One thing is certain, and it is this: The benefits of cool-curing cannot be secured with a central warehouse unless the cheese are delivered there every day, and that means extra expense, as against the usual plan of delivering to the shipping point once a week, or when a sale is made.

Another point to note is that the Government cold-storage subsidy cannot be secured unless the warehouse is equipped with mechanical refrigeration, and it would be very poor business policy to incur the expense necessary to so equip a cheese storehouse, in a locality where ice is available, and when the required temperature is not below 50 degrees.

CENTRAL CURING-ROOM IDEA.

There may be certain localities where the central curing-room idea, or a warehouse through which the cheese could pass for inspection and sale, would work out to advantage; but, on the whole, the suggestion does not appeal to me as a very practical one.

It is a very convenient way to sell the cheese. We found it so when the Government cool-curing rooms were in operation, but the advantages are not worth the additional cost which is thus incurred in the marketing of the cheese, all of which must come out of the milk producer, and which will be greater than appears to be generally supposed.

ALL WANT THE TOP PRICE.

It has been said that the cheese would be sold on their merits under such a plan, and that there will be proper discrimination in price, according to quality. It is a very regrettable feature of the cheese trade, as well as of other trades, that the producer of a superior article does not always receive the premium which he should. It is generally admitted that nothing would so quickly bring about improvement in the quality of cheese as to have them sold strictly on their merits, but I fail to see why it should be assumed that this reform would be brought about through the medium of local warehouses. The same forces which now impel the buyer to pay a uniform price, and which influence the salesman to demand it, would be at work under those conditions, just as they are under any other.

It seems to have escaped the attention of some people that the principal reason why cheese are bought without proper discrimination in quality is because the salesman demand a uniform price. If John Jones sells his cheese for 12 cents, all the other factories in the neighborhood insist on getting 12 cents also, regardless of quality. Every person knows that that is what happens at the cheese boards. It is what would happen in a warehouse if the cheese were being sold under the trier, because just as soon as a salesman found that he was not being paid the ruling price for his cheese, he would withdraw, and offer them through some other channel; so the buyer does business along the line of least resistance.

OFFICIAL GRADING AND SALE BY AUCTION.

I have for some years thought that the best plan for selling Eastern Ontario and Quebec cheese would be to have a central receiving warehouse at Montreal, where the cheese could be officially graded, and then sold by auction, without any recourse. That is to say, the price bid at the auction would be final. The official grading would relieve the buyer of the onus of discrimination, which appears to be the chief difficulty at present. This plan would not involve extra handling or expense, because the cheese would be going through the most direct channel. But there are many obstacles of a commercial nature in the way of giving effect to such a plan, and the disinclination on the part of the average salesman to accept a verdict which puts his cheese out of first grade, no matter how independent or reliable the official may be who passes judgment on them, would be a difficulty in the way of successful operation.

METHODS OF SELLING.

There has been some discussion in Eastern Ontario recently about methods of selling cheese, and the question has been magnified to an extent out of all proportion to its importance, compared with other matters affecting the industry. The result of this agitation, so far as it can be said

to have had any result, has been to divert the attention of some dairymen from questions of much more real importance to them. The manner in which the agitation has been conducted has been harmful, by creating ill-feeling between different classes or interests connected with the trade. If there are any wrong practices, and I shall not deny that there have been, they will not be put right by wholesale charges of dishonesty or mean insinuations and abuse of those who may offer contrary opinions. Abuse is not argument, and is always the resort of a man who has a weak case. I know the men who are included in the different divisions of the cheese trade, from patron to buyer, as well as any person, and I am bound to say that I have found one just as honest as the other. It will do no good to create unwarranted suspicion in the minds of those who have to deal with each other.

QUALITY FETCHES THE BUYER.

In regard to the selling of cheese, I would repeat again that there is only one thing of real importance, and that is to have an article of superior quality. All other considerations are insignificant in comparison. The factories which have earned a good reputation by turning out a superior article year after year, never have any trouble. The competition for their cheese enables them to pick and choose as to whom they shall sell to. Of course, ordinary business prudence demands that some care shall be exercised in dealing only with houses in good financial standing.

It is important, also, that the business of selling the cheese should be put into the hands of competent men. There are a great many men acting as salesmen for cheese factories who have no special knowledge to qualify them for such a duty—men who do not know anything about the qualities of cheese or of proper business methods, and it is not surprising that they sometimes get the worst of the bargain. Salesmen of this kind are a positive barrier to progress, and they have cost the patrons of cheese factories of this Province a great deal of money, both directly and indirectly. When such a man offers inferior cheese for sale, he will not be convinced of the fact like a man who really knows something about cheese. He assumes that he is being imposed upon, instead of finding out the cause of the defects and having it removed. Thus the evil is perpetuated, and the losses go on. If the matter is in the hands of a capable man, he will find out where the trouble is, and seek to have it remedied.

THE MIDDLEMAN FACTOR.

I believe the middleman is a necessary factor in the successful handling of the Canadian dairy-produce trade. In the marketing of cheese, its distribution to the different centers in Great Britain calls for special knowledge, because these different places demand cheese of widely different character. It is a well-known fact that cheese which will give satisfaction in Manchester market are not wanted in London. The same may be said of Glasgow, Liverpool and other points, all of which have their peculiar fancies. It is here, in dealing with these special requirements, that the training and experience of the middleman is useful in realizing full value for different kinds of cheese.

Then, there is another very important consideration. Canadian cheese amounts to between 70 and 80 per cent. of the total imported into Great Britain. The consumption of cheese goes on throughout the year, but the manufacture in Canada, as everyone knows, does not extend over a period of more than about seven months. The result is that, as the season advances, the surplus of supply over demand gradually increases. The middleman speculates with this, and holds it until such time as it may be required for consumption. It must be very plain to anyone that if all our cheese were forced onto the English market, as it would be on a consignment basis, as soon as it is made, the market would be demoralized before the end of the season. It is safe to say that if every box of cheese made in Canada this year had been consigned to Great Britain within three or four weeks after it was made, cheese would now be selling for a very much lower price than it is. Without the middleman or exporter, we would lose the advantage of the competition for the cheese, which often raises the price higher here than it is in England.

SPLENDID SYSTEM OF DAIRY INSTRUCTION.

I cannot close without mentioning one feature of the dairy situation in Eastern Ontario, concerning which there is good reason for congratulation. I refer to the work of dairy instruction. The dairy associations of Ontario are entitled to the credit of having inaugurated a scheme for dairy improvement, when they first employed instructors to visit the factories, which has since been adopted in some measure by every important dairymen country in the world. It was exactly thirty years ago this coming season that the Western Association employed the late Prof. E. B. Arnold, of the State of New York, to introduce his new method of cheesemaking, which

was known as the sweet-curd system, to distinguish it from the so-called "acid" system then in vogue. Mr. J. B. Harris, of Antwerp, N. Y., was engaged by your Association in 1881, and two following seasons, to visit the factories in Eastern Ontario. After that, Canadian instructors were employed, and it should be a matter of pride to us all that it has never since been thought necessary to go outside of the Province for dairy teachers; and what is even more complimentary, the United States, New Zealand, Australian and Scottish authorities have induced many of our best men to accept service in those countries. The dairy instructors never had a fair chance until they were made independent of the factories, as they are at present. The value of the instructors' work has been increased enormously by the aggressiveness and fearlessness engendered of freedom. It is gratifying to find these men taking their places as leaders in their respective localities. The successful instructor must possess other qualities in addition to technical skill of a high order. He must be tactful, patient and persistent, as well as industrious. A blustering, grouchy, fault-finding manner destroys the effectiveness of any man's skill in this kind of work, because the Canadian temperament calls for a leader, not a driver.

It has always appeared to me that there should be a little more organization in connection with the different instructional districts, but as long as the matter is under the energetic and capable supervision of Mr. Publrow, we have an assurance that the work will be well done. As a last word, let me say that this scheme of dairy instruction should have the hearty support of every Ontario dairymen, for it has put millions of money into the pockets of the milk-producers.

To Improve System of Cow-testing

Editor "The Farmer's Advocate":

The important question of the cow-testing work demands more attention. Could not something more be done by the Department of Agriculture to increase the benefits now received by the members of the various cow-testing associations? It is a patent fact that the members of these associations do not get sufficiently interested in the work, and that much of the good work done by the Department goes for nothing. If this were not so, why should so many drop out of these associations? Why should an association starting with 26 members drop down to four inside of two years? And why should so many members send their milk intermittently, missing a month now and again all through the year? Why, also, do they not take up the daily record-keeping, and why not get rid of their inferior cows? The failure to do these things—the very objects of the association—points out the need of something more being advisable. Of course, all members are not thus careless or indifferent, as there are some who fully appreciate the help they are getting, and who profit thereby. These have started to keep daily records; these have sold off their poor cows; these are interested in their own individual cows, and could now intelligently go on and do their own work of record-keeping and testing. But they are few, and only a small percentage of the whole. Would it not be worth while to do as is done in some parts of the United States: Let associations be formed as at present; let an expert tester be assigned to the association, who will spend one day each month with each member, weigh the milk of each cow, test it, and estimate her return for the month? He gets the member to keep daily records, as well, directing him how to do it, and uses these in his estimate, after comparison with his own. He also estimates the feed each cow consumes, and offers suggestions along this line, also. He is able, at the end of the year, or at the end of each milking period, to give each member an accurate statement showing the cost of keeping each cow, and the return each cow has made. The cost to each member is one dollar per cow per year.

This would benefit each member many times over for the expense. The objection against such a plan would be the expense to the Department, but it might be partially carried out. Let the expert tester spend one month in one district, and go on to another, visiting six such associations in a year twice, having returned to the first one in six months from the start. The work would, no doubt, be imperfect at first, but gradually the daily record would be established, and soon the districts could be left for one visit a year. The Department would supply all blanks and keep in touch with all members. Such is our suggestion. Let others make some. Do not let us stand still. Do not think it is well enough now. No matter how much good is being done by the present method, if we can improve upon it, let us do so.

D. ROBERTSON.

Halton Co., Ont.

Union Creamery Figures.

The annual report, given by A. Aldrich, at a meeting of the patrons of the Rainham and Wallace "Union Creamery," held in Selkirk, recently, showed progress all along the line. The amount of cream received at the factory during 1908 was 387,662 pounds, against 334,648 pounds in 1907, an increase of 53,014 pounds. The amount of butter made in 1908 was 111,601 pounds; in 1907, 97,200 pounds—an increase of 17,401 pounds. The average price at which butter was sold during 1908 was 27.48 cents per pound; in 1907, 26.68 cents per pound. The weight of butter-fat received during the year was 97,819.72 pounds, against 84,635.88 pounds the previous year. The average price of butter-fat was 28.541 cents, against 26.875 cents. The amount of cash paid to patrons in 1908 was \$26,175.24, as against \$21,400.47 in 1907, an increase of \$4,774.77. The receipts for the year were \$29,621.43, and the expenditure \$29,612.27, leaving a balance in hand of \$9.16.

In answer to a question as to how it was that a balance, Mr. Aldrich explained that, owing to the use of fractions in the market prices of butter, it was impossible to always distribute the cash to patrons, who had to be paid in whole cents, but the balance was always carried forward to the following year.

R. H. Green, of Cayuga, Instructor of the Western Ontario Dairymen's Association, outlined the work that the Government was doing for the dairy industry.

Mr. Aldrich thought the cow-testing association was a step in the right direction. The number of patrons sending cream to the factory in 1908 was 215, as against 175 in 1907. He was pleased to see that farmers were taking more interest in winter dairying. An evidence that winter dairying was becoming more popular was that 135 patrons were now sending cream to the factory all the year round. In the winter a farmer had more time to attend to his stock. A man who went in for winter dairying was able to make more money per cow, because the price of butter was higher at this season of the year. Some patrons made as much as \$65 per cow out of the butter-fat produced, while some only made \$15 per cow in the same period. He was pleased to hear Mr. Green impress the necessity for keeping the cream cool. He preferred to have the thick, 30-per-cent. cream; it meant less volume for him to handle; the thicker the cream was, the better for both parties; it meant a better-bodied butter. Unless the present shortage of ice was soon made up for by some severe frosts, he foresaw the necessity of putting in an artificial freezer, at considerable cost. The year's success was credited largely to the fact that, at the start, he had adopted a brand for the butter he made, viz., "White Clover Brand," and it had become a standard name on the butter market. This had resulted in a better price per pound than was being got by other people.

Dairying at Burgessville.

Total receipts for 1908 amounting to \$33,084.08 for cheese, and \$1,215.28 for butter, are shown by the annual report of W. H. Kneal, Secretary-Treasurer of the Burgessville (Ont.) Cheese and Butter Factory. Patrons received \$28,417.23 from the manufacture of cheese, and \$1,672.93 from buttermaking. The total quantity of milk received was 3,156,245 pounds. Cheese weighing 140 tons 1,832 pounds, sold at an average price of 11.74 cents. An average of 29.51 cents was received for 4,118 pounds of butter.

Kingston Dairy School.

A successful season is reported by G. G. Pablow, Superintendent of the Kingston (Ont.) Dairy School. There are 53 students registered, of which number 20 are taking the three-months' course. The others spend two to four weeks in special study of some particular branch of the work.

POULTRY

A Young Poultryman.

Editor "The Farmer's Advocate":

My father takes "The Farmer's Advocate," and I like it as well as he does.

My henhouse is 12 by 26. The ceiling is made of boards 6 inches apart. Above the ceiling is filled with straw, which keeps the house warmer. The henhouse has a "lean-to" roof. The ends of the rafters have no cornice on them, so this is a good place for the escape of bad air. There are four windows in the south, and one in the east. Each window has glass in the top and curtain in the bottom. The door is in the west. The roosts are in one end, with the nests under them.

I feed the hens wheat in the morning, covered with the litter. At noon they get a mash of

oat chop. When this is eaten, I open the hopper, which I made, so they can eat what they want. This is filled with wheat, oil-cake meal and chop. At night they get a good feed of corn. There is also grit, oyster-shell, water and milk before them all the time. They have a box of ashes to dust themselves in, and I hang up roots for the hens to jump after. They have a yard 26 x 30 to run in. I have about 60 hens and two cockerels in the pen. Hoping I will see my first letter to "The Farmer's Advocate" in print.

Lambton Co., Ont. KELSO ANNETTE (13.)

Distinguishing the Layers—Feed for Laying Hens.

We have taken your paper for several years, and find it to be an A-1 paper in every respect, helpful in a great many ways to us farmers. In your issue of February 11th, A. B. Smith said that he killed off all the drones in his flock of hens.

1. Now, I would like you to tell us, through the columns of "The Farmer's Advocate," how we are to tell a hen that does not do her duty and does not lay eggs, from one that does?
2. What kind of hens are the best layers?
3. What is the best kind of feed in winter for laying hens?
4. Do hens need a hot mash in winter?

A FARMER'S SON.

Ans.—1 and 2. The use of trap-nest and keeping of egg records will indicate which hens lay and which merely board on their owner. Trap-nests, of course, entail close attention. Observation is a simpler and easier, though not so certain a means of distinguishing the boarders. A hen which is seldom or never seen on the nest, which has a pale comb and generally dumpty appearance, which sits perched most of the time on the roost or squatting around on the floor, is not doing much to fill the egg-basket. Layers have bright-red combs, bright eyes, an alert, active appearance, and are always on the lookout for scraps, bone, grit, oyster-shell and such titbits. There are many nostrums and theories for distinguishing the layers by their shape or otherwise, but these fail about as often as they come true. Possibly birds of oblong shape are more likely to lay well than those too short of body. Of course, any capable poultryman will make a practice of killing off his hens two years and over, except, perhaps, those that are extra-good layers.

3 and 4. Grain of various kinds buried in litter, to induce exercise. Use wheat freely and corn sparingly, especially towards spring. Give meat in some form, and green-cut or pounded bone, oyster-shell and grit. A warm mash is good, though not particularly necessary. It is, however, a good means of using up scraps and odds-and-ends. Do not forget vegetable food. Clover or alfalfa leaves are excellent. Steamed lawn clippings, mangels and other vegetables are also acceptable.

British Egg and Poultry Trade.

In a recent issue of Trade and Commerce Report, J. B. Jackson, Commissioner at Leeds, Eng., says that the wholesale value of eggs and poultry consumed in the United Kingdom last year was over £20,000,000, and two-fifths of the product was imported. Continuing, the report reads: "Though the English demand for poultry and eggs has grown rapidly, it is, apparently, being met more and more by home produce, as the number of eggs imported last year was nearly 200,000,000 less than in 1903, when the import reached its maximum. The total last year was 2,185,000,000, of which nearly a half came from Russia, and a quarter from Denmark. The average import value of Russian eggs was 7s. 1d. per 120; of Danish, 9s. 3d., the best average from any country except those from Canada, which were 9s. 10d. per 120. The supply from Canada is gradually diminishing, only one imported egg in 300 now coming from the Dominion. Taken all round, imported eggs have grown steadily in value, from an average of 5s. 10d. per great hundred, in 1903, to 7s. 10d. in 1908. Part of the increase is due to enhanced demand, but no small share of it has been brought about by the better organization and methods of marketing in the United Kingdom.

"The annual value of imported poultry has steadily increased, and now approaches £1,000,000. Russia contributed last year over one-third of the total, and, with the exception of £35,000 from other countries, all the remainder came from France, Belgium and the United States. Formerly the United States occupied the dominant position now taken by Russia, and it would appear, from information received, that the great improvement of quality by fattening to meet the requirements of the English market has led to a much greater demand for these birds in the United States, and enhanced prices."

A Farm Girl's Poultry Flock.

Editor "The Farmer's Advocate":

In response to your request, I will give my experience in caring for poultry, though the results are not nearly so good as those of the woman written of in your issue of January 21st. I have taken charge of our hens for two years come April, but am handicapped in having two small houses, in which there is not enough of scratching room, and both are cold, the drinking water freezing quickly in them on cold days. I have put building paper, in some cases, inside, and some outside, with boards over it, and have done what I could to make it more comfortable for the fowls, but, though it is much better than formerly, there is still much to be desired.

I have put the roosts almost on a level in the darkest corner; put the nests up three feet, so the hens are not tempted to eat eggs; always keep plenty of fresh clean straw on scratching floor, which is directly in front of south window, and is divided from other part of house by a one-foot board across the floor from side to side. This keeps the straw from getting scattered about, and prevents it from getting into the drinking water and dust bath, which are on opposite sides of the board. The houses are kept clean, often being sprayed with kerosene emulsion in summer, and straw changed frequently in winter, and droppings removed every two weeks. They are fed a mixture of barley, oats and buckwheat (warmed on very cold days) night and morning, and a hot mash of small potatoes, boiled, mashed, and mixed with chop, oyster-shell, and sometimes onions. They also get cull apples or mangels twice a week, and grit at all times. They never get meat, except scraps from the house, and always plenty of fresh water, warmed in winter. The broody hens I shut up in a large, portable coop, with slatted front, and seeing the others roaming about seems to give them something else to think about, and three days are usually sufficient to break them of the habit.

The method of feeding given is only for winter, the summer ration being only grain, in smaller quantities, morning and night, with free range wherever they care to go. I hatch with both hens and incubator, but prefer the hens, as with them the chicks need less care. Hens are never allowed to hatch in henhouse; usually I put them in boxes or coops—in fact, anything large enough—in a good location, but aim to have the nest so placed that the hen can walk on, instead of flying up and then drop down upon the eggs. Heavy hens are liable to break eggs in such cases. I use large hens, give them fourteen or sixteen eggs, try to get three or four to set at same time, and then give the chickens to two hens. I set the hens at night, darken the nest, and let them off to feed every evening, after the others go to roost. I find this a good plan, as they soon learn to go to their nests, and do not stay off as long as if fed in the morning with the flock, and there is no fighting, either. "Cluckers" are cranky, and will fight if with the others. My hens are very quiet, will sit almost any place, and do not pick me when I handle them.

When the chickens arrive, they are not fed until the second day, when they are given oatmeal moistened with water, stale bread, scraps from the house, etc., until they can eat small wheat or buckwheat. As they grow, they feed with the flock, and, to fatten, are given a feed of peas night and morning, apart from the old ones. I try to get the old ones in one house and young ones in the other, and coax them in by feeding inside. I put roosts low down—flat ones, usually—for them, and consider roosting better for them than huddling in bunches, as they will do if not given roosts.

I keep an account of all eggs and poultry sold, and you will notice the small egg yield during the last few months. This is due to the fact that the hens had what I called (for want of a better name) green diarrhea in the fall, and, though only eight died, those that recovered have been very slow in starting to lay. In treating for this disease, I used sulph. carbolate of zinc, as directed by Mr. Graham, O. A. C., one generous teaspoonful in one gallon water, or one tablespoonful hyposulphite of soda to the same amount of water, and sprayed inside of houses and coops with a solution of Zenoleum. This checked the trouble, but I had much rather it had never come amongst them, as it spoiled their usefulness for a long time.

I have raised 200 chickens in one season, which is pretty good on an ordinary farm, where poultry-raising is not a specialty, but was unable to spare the time last season, so only raised about 80. Of these, less than 20 were pullets, and I sold the off-colored ones, so am starting 1909 with 37 hens and 11 pullets. My hens are Buff Orpingtons. Below is given the number of dozen sold each month, with amounts received for them: January, 26 dozen, \$11.95; February, 52 dozen, \$18.57; March, 45½ dozen, \$12.50; April, 51 dozen, \$10.80; May, 50½ dozen, \$10.40; June, 22 dozen, \$4.10; July, 21 dozen, \$5.25;

August, 48½ dozen, \$12.11; September 22½ dozen, \$6.00; October, 6 dozen, \$1.78; November, 16 eggs, 47c.; December, 1 dozen, 50. In December, 1907, I had 16½ dozen, at \$8.86. You can see the falling off at the end of the year, due to the sickness, and the difference in spring and summer months during the hatching and broody periods.

To me the farm is a delight, and my special work very interesting. I love every hen, and they seem to like me, also. I feed and water regularly, and they lack for nothing they need that I can supply. FARMER'S DAUGHTER.
York Co., Ont.

Farm Lad's Poultry Experience.

Editor "The Farmer's Advocate":

Seeing many letters on poultry-raising in your valuable paper, of which I am a subscriber, I thought I would give my experience, which might be of benefit to some. My henhouse is 17 x 15 feet, built in one corner of a large shed, to which the hens have free access to scratch, and where they get plenty of exercise.

The wall is made of cement, and the front part of the henhouse is used for feeding purposes. Every morning we cover this place with about two inches of cut straw or chaff, and a board is put on its edge, so that they cannot scratch the straw in under the roosts.

In the morning we scatter about three parts of a pail of barley and wheat, mixed in the litter, and let them scratch till noon; then we give them a feed of dry meal in a long trough, covered over with slats up to the front, so that the hens cannot crowd one another out so easily. We find the dry-feed method much better than mash, as the birds are not so apt to be troubled with bowel complaints, but we have always plenty of clean, fresh water before them, with the chill taken off. Then, in the evening, we give them some more grain, buckwheat and oats. Oats are good to make hens lay, only the large hulls are not digested very easily. In a box, in a corner, we keep gravel, which we throw out and put in fresh occasionally.

Hens must have green food in the winter, if wanted to lay. I cut up six or seven large sugar beets or turnips, and hang them on nails on the wall, so that the hens have to jump for them. I find the busy hen is the paying hen—the one that lifts the mortgage. I have tried a few different breeds of fowls, and find the White Wyandotte the best all-purpose hen, they being better layers than other large breeds, while the fowls, for market, are unsurpassed by few.

Grey Co., Ont. CLIFFORD D. DINSMORE.

GARDEN & ORCHARD

Profits from Garden Crops.

Actual profits from the garden plot on the average farm are difficult to compute in detail. Nothing, however, is so effective as a stimulus to any line of work as definite statements regarding expenditure and returns. Realizing this point, and the importance of garden crops to the farmer and his family, "The Farmer's Advocate" wishes to publish letters showing the actual or approximate returns from the small area devoted to vegetables and small fruits. Among the details that should be mentioned are the size of the garden, the nature of the soil, the crops grown, and the names of varieties, with comparisons, where possible.

Satisfactory contributions will be paid for at regular rates. Prompt response is requested, so that every farmer in the Province may be roused to the benefits derived from gardening in time to undertake the work this spring.

To those who have not kept memoranda of expenditure for seeds, insect poisons, tools and such requisites, as well as the market value of products used and sold, we would urge the advisability of doing so this season. It is an easy matter to enter up the vegetables or fruits used each day, and at the end of each month to compute the value, according to prices quoted in "The Farmer's Advocate" or in local daily papers. Try it for 1909, and let us know the result.

Practical and Comprehensive Treatise.

I am glad to acknowledge the receipt of King's book on "Ventilation," as a premium for securing one new subscriber for "The Farmer's Advocate and Home Magazine." I have read the book through, and have found it to be a very practical and comprehensive treatise on this most important subject. It should be in the hands of every live-stock farmer. B. J. WATERS.
Middlesex Co., Ont.

Fruits for the Farm Garden.

Three rows of strawberries 150 feet long will more than supply a family. Plant in spring, in rows 42 inches apart, and 18 inches in the row. Have at least two rows of raspberries the same length, but the rows should be six feet apart and the plants three feet apart in the row. The same of blackberries, planted the same distance apart; and, if currants and gooseberries are desired, they should be four feet apart each way. These thrive best on rich clay loam. Have the ground clean, and then mulch them heavily.

To the fruit list might be added a few vines of the best early-ripening grapes.

The culture of the small-fruit patch is simple, as, if the soil is rich and clean to start with, it will be easily managed. The strawberries will need to be renewed at least every two years, and it is better to put them on fresh ground than to plant on the same soil again. The raspberries and blackberries will give good results for ten years, if properly managed. The old canes must be removed after fruiting, either in fall or early spring, and the young canes thinned out, leaving about eight of the best and strongest to each hill. It is best, with a young plantation, to pinch off the top of the young canes when they are about thirty inches high. They will grow stouter and throw out laterals giving a greater area of bearing wood for the next year.

A dressing of hardwood ashes applied in the fall is a great help to the fruit plantation. It adds wonderfully to the quality, quantity and flavor of the fruit. Probably the principal insect pest to be dealt with will be the currant worm on red and white currants. Good fresh hellebore will put them out of business quickly.

VARIETIES.

In strawberries, Haverland, Williams and Senator Dunlop would be a good selection. In raspberries, Marlboro for early, and Cuthbert for late. In sections where Cuthbert winter-kills, Herbert should be substituted. The best black-cap for the home garden is the Older.

In blackberries, Agawam and Eldorado will fill the bill for most localities where blackberries can be grown, and both are of fine quality.

The growing of a few fruits and vegetables successfully is not by any means a formidable proposition. It simply means the selection of a small strip of suitable ground, a little extra work in spring, with a trifling outlay in money for seeds and plants, and frequent use of the scuffler, making the hand labor very light. And there is no spot on the farm of equal area that will give such large returns for the labor expended in the way of wholesome food for both young and old, or add so many real luxuries to the daily bill-of-fare. G. C. CASTON.

Simcoe Co., Ont.

Growing Seed at Home.

A writer, in a recent issue of Rural New Yorker, considers that users of garden seeds lose millions of dollars annually because of seed adulteration. "The last few years," he says, "I have grown some of my own seed. I do not do this as a matter of choice, but because I cannot buy the kind of seed I want."

Considerable success attended his efforts at producing onion and turnip seed.

"The onions I selected for seed," he writes, "are large, a perfect globe, with a very small neck, smaller even than a lead-pencil, of a beautiful straw color. Had I crated up those onions in a crate similar to those that are sold for five cents a pound in grocery stores under the name of 'Spanish,' no man could have told the difference between mine and the 'Spanish.' I could have sold them for the same price the 'Spanish' onions sold for, and with the money so received might now buy 1½ pounds of Prizetaker seed for every pound I harvested. You will see that I am out all the labor and expense of growing, harvesting and cleaning the seed, besides. The commercial grower, of course, may be able to grow his seed cheaper, but he cannot grow the kind of seed that I have for the amount of money he gets as his share, and live and prosper as he deserves."

Turnips grown from home-grown seed were sold at 50 cents per half-bushel basket, when common stock went begging for a buyer at 25 cents. "In producing this seed," he continues, "I selected a turnip somewhat elongated, with as small a top and taproot as possible. The white, I wanted as waxy white as possible, and the purple as bright and distinct as colors can be produced. I certainly have a thoroughbred turnip—but don't anybody ask me for seed; I have none to sell, nor shall I ever be in the seed business."

It is claimed that present prices are not sufficient to pay for the production of seed as pure as growers should plant. Quality is lost sight of by the seed merchant in his desire to produce cheap seeds or to undersell his competitor. The supplies of cheap seed are attributed to "A species of parasites, bugs, humbugs, and other insects, which feed on production and distribution in the seed business."

Injuring the Apple Trade.

Diseased apples, wrong varieties and slack packing are reported in connection with Canadian apples shipped to South Africa. A letter from John A. Chesley, Trade Commissioner at Cape Town, dated December 29th, and appearing in the February 22nd issue of Trade and Commerce Report, contains the following:

The steamship Melville, from Montreal, arrived at Cape Town on December 4th, with a cargo comprising 775 barrels and 326 half-barrels of apples, consigned to Cape Town merchants. These, when discharged, underwent the usual inspection made by the Government Fruit Inspector, under the direction of the Entomologist of the Agricultural Department of Cape Colony, and 91 barrels—a little over 8 per cent. of the 1,101 packages landed—were declared by this official to be diseased, some being infected by "scab" or "fusidadium," and others showing traces of "codling." They were, therefore, excluded from the South African market, causing loss and disappointment to the importers, and doing considerable damage to the Canadian apple trade in South Africa.

It is alleged, and strongly maintained, by the Agricultural Department of the Cape Colony Government, that the western province (the chief fruit-growing district of the colony), and the fruit districts in other sections of South Africa that send apples to the Cape Town market, are entirely free from the disease known as "scab" or "fusidadium." Therefore, the officials of the department having charge of this branch of service, state that they are fully warranted in enforcing the regulations, authorized by the statute, against the introduction of this or any of the other fungous diseases into their fruit-growing districts.

It will, therefore, be absolutely necessary, in order to successfully market Canadian apples in South Africa, especially in Cape Colony, to export only sound, clean fruit, as the entomologist will insist on absolute cleanliness and freedom from all kinds of fungous diseases found in the apples offered for sale in this market in the future.

Cape Town consignees complain that several of the packages of Canadian apples consigned to Cape Town importers in the steamship Melville on her last voyage were not the variety ordered by them, many of the barrels being only faced with the proper grade, and very inferior, small, badly-colored fruit being towards the middle. They also complain of the substitution of poor-selling or poor-keeping varieties for better kinds ordered. They further state that Spies and Wolfe River have been sent in place of Kings, and Spy in another case in place of Russet.

Importers also affirm that several of the packages of apples discharged were slackly packed, so much so as to have necessitated filling up and re-packing before offering them for sale. This condition incurs unnecessary expense, causes considerable inconvenience to importers, and should be discontinued, as it is very detrimental to the successful continuance of the Canadian apple trade in South Africa. Carelessness in packing should be studiously avoided in the future.

How My Father Grew His Own Turnip Seed.

When I was a boy, 45 years ago, my father always saved his own turnip seed, and this was continued up to the time of my leaving the farm. I don't see such turnips as we had in those days. This is how we were taught to select the roots: My father gave us what he considered a true type of a Yellow Globe turnip, viz., a sound, true, smooth turnip, with small, short neck and small taproot; not too much top; nicely colored. These were pulled up carefully, the dirt shaken off the roots, and the leaves cut off, leaving about four inches. These turnips were taken in with the others to the barn, and laid aside in the root-house, or taken to the house and put in the potato cellar. In the spring, my father would take a good big wheelbarrow of these to the wheat field and plant them on the head ridge among the wheat. The seed will ripen about the time the wheat is ready to cut, or a little before. Keep an eye on them, and don't let them get too ripe, or you will lose your seed. Growing among the wheat seemed to suit them, and, besides, the wild canaries were pretty thick, and, being among the wheat, they did not see the turnips so readily. When ready to cut, go out to the field with an old sheet or blanket, cut off the stems, and tie up by the four corners of the sheet, and take home. Shell when sufficiently dry, and put away, carefully labelling with date cut and year grown in. I have seen some seasons that one-fifth of the turnips in the field had not top enough to pull them out of the ground. Such seed, saved from carefully-selected turnips, would be cheap at one dollar per pound. Were I back on a farm I would most certainly pay that price or save my own seed, not only of turnips, but some other lines as well.

JOHN S. PEARCE,
Parks Superintendent, London.

Manure in the Orchard.

A very important requisite in the orchard is barnyard manure. Some rely on the plowing down of cover crops to provide the necessary humus and maintain the supply of plant food, but frequent applications of manure are advisable. It can be applied at almost any time of the year to advantage. If put on during winter, or early spring, it is turned under when the land is plowed, and constant cultivation up to the time the cover crop is sown incorporates the application with the soil, and tends to hasten its decomposition.

Enrichment must go hand in hand with cultivation, if best returns are to be expected. The annual falling of the leaves and the plowing down of cover crops, where such are used, cannot be depended upon to recoup the soil for what is taken in producing a crop of fruit and in adding to the size of the trees.

The value of wood ashes in an orchard is overlooked on many farms. Potash is required in liberal supply, and this is a cheap way of supplying the necessary. It is not sufficient, however, to dump the ashes in heaps near the trunks of the trees. Like all fertilizers, best results can be obtained only by an even application all over the ground, followed by thorough incorporation with the soil. The ashes will not take the place of manure, nor should manure be applied as a substitute for ashes. Both should be employed. On light lands, especially, potash in some form should be applied in addition to what is contained in the manure. If ashes are not available, the commercial potash salts, such as sulphate and muriate, may be substituted. In the Annapolis Valley of Nova Scotia, famous for its apple production, liberal supplies of potash are purchased and used.

Opportunity in Onion Trade.

Writing from Bristol, Eng., W. A. MacKinnon says that a scarcity of English and Spanish onions has caused a keen demand, and consequent high prices for that garden product. Spanish brought \$2.92 to \$3.16 per case of 126, and English Globe onions \$1.70 to \$1.94 per cwt. (112 pounds). The prospects are for still higher prices, and Mr. MacKinnon suggests that Canadian firms would find this an opportune moment to establish a trade for Canadian onions. He says that a local importer recommends prospective shippers to send only well-graded onions of the Silver Skin variety, not brown, and that the most satisfactory pack is in bags of about one hundredweight.

It Pays to Cultivate.

Editor "The Farmer's Advocate":

Potato-growing is a profitable feature of my farming operations. Last season I planted Delawares on May 18th, and began harvesting on July 22nd. They were very fine potatoes, good quality, and very few small ones. The setts were very large. I cut them in three and some in four pieces, and planted them in drills 30 inches apart and 14 ins. in the drills. They came up very strong and grew rapidly. I kept the cultivator going every week until they got too strong to get up the drills. This kept the soil loose, and retained the moisture, although we had such a dry season. I only ridged them enough to cover the young potatoes. I planted another patch, adjoining, about a week later, with medium-sized tubers, not cut, but they did not produce such an even crop as the large, cut ones did.

York Co., Ont. J. W. PERRY.



Crop of Potatoes Grown in York County, Ont., by J. W. Perry.

THE FARM BULLETIN

Reply to Feminine Critics.

Editor "The Farmer's Advocate":

Now that the nights are longer, and the farmer has more leisure for reading, perhaps it is not unwise to reopen the discussion as to why we have this steady drift of population from country to city, and to seek a remedy therefor. I purposely made my former article pessimistic in tone and comprehensive in subject, in order to stimulate a fuller discussion of the question. However, the time of year was ill-chosen, which, I presume, accounts for the replies being largely confined to the fair sex, and for the restricted view taken of so broad a question. If, "In a multitude of counsellors there is wisdom," then, it seems to me, there are few questions for which Canadians need so much the multitude to express their opinion. It is a great national, social and political problem, affecting, more or less, every inhabitant of our country.



Delaware Potatoes Grown in York Co., Ont. Planted May 18th; harvested July 22nd, 1908.

Canada is a young country, just budding into nationhood, and it is of very great importance that she profit by the mistakes of others, and by studying her own peculiar problems, start right; and it remains for the people, through the press, to say how that start shall be made. Granted that it is inevitable that Canada shall become a nation, or at least an important part of a great empire, is it necessary, therefore, to foster the growth of varied industries in the city, at the expense of the countryside? Or is it (as the manufacturers like to tell us) necessary to build up large cities in order to create a home market for our products, and, therefore, wise to protect the manufacturer who employs the men who create this market? The history of nations' records, and our own experience teaches that the building of large cities is not conducive to a nation's permanent prosperity. With them come vice, dissipation, extremes of riches and poverty, a vitiated atmosphere, bad food, worse drink, and, consequently, a lowered vitality of body and mind.

so that, in order to "keep going," they must constantly receive from the countryside fresh supplies of brain and muscle.

Would it not, then, be better to discourage, as far as possible, this undue growth, which, to a certain extent, is inevitable, and to the utmost foster rural industries, in order that wealth may be created more rapidly? Our only source of wealth, almost, is outside of the cities; it must first be taken out of the ground or the water. And, while it is necessary to manufacture and refine it, yet, when the manufacturers and traders, as a class, are able to reap larger profits than the producer, it is surely time to bend our energies toward the improvement of conditions in the country, and to let the city take care of itself. As it is, the country is trailing in the wake of the city, and, while the yeoman has progressed considerably in intellect, refinement, education and manners since the days of the English barons, he is still known as a "hayseed" and "clodhopper"—and not without good reason in many cases.

Would it not, then, be saner to protect or directly assist the producer, that he may not only be enabled to produce more wealth from the soil, but that he may also have more time for social and intellectual improvement? He should be given mail delivery and rural telephones at public expense, even though the man in the city had to do without his delivery. He should be given better roads, and better facilities for education. Then might we hope to see the tide recede, and the return to the land begin in earnest. As it is, the city dweller gets all the good things, even to the best boxes in the post office, or the best pews in the church, because he has the natural advantage of proximity. And if there is a victim to be scalped by the sharp business man, it is the farmer, because, being in daily contact with Nature, who, though often a hard taskmistress, is yet just and beneficial in her dealings, he acquires faith and trust, and is slow to believe that his fellow man can be aught else.

Much of this roguery could be prevented if farmers had the means to provide themselves with such facilities as scales, etc. The farmer is handicapped, and his profits are small, as compared with his equal in intellect in the city. Therein, to my mind, lies the secret of the depopulation of the countryside. Give the farmer an equal chance, and he will soon make the farm the envy of all investors. I do not believe that the city could still take the lead in preferment, because the love of nature is strong in the human family, and people would prefer living in the country if they could obtain "anywhere near" the convenience and social advantages which the city affords; and for this reason, that the more enlightened in both city and country are beginning to see that many of the so-called advantages obtainable only by a dense population are really curses in disguise, and dear at any price. The price is often broken health. The dictates of fashion have produced a round of social duties which, instead of a pleasure, have become a task, from which they would willingly escape to the country if there they could but have good roads, daily mail, telephone, warm and well-ventilated houses, variety in food, and, yes, the bathtub. The farmer, on his part, if his profits warranted it, would spend some of the winter months in the city, getting rid of the characteristic "cowey odor," and having his ideas sharpened and broadened by contact with his fellow men.

In conclusion, let me impress the fact that the cityward drift is still a deplorable reality, in spite of the views of a few feminine correspondents who, tainted with the spirit of Provincial egotism, and possessed of the adherence to preconceived opinions so characteristic of the sex, would doubtless defend their mode of life though their lot was cast in Hades—where bathtubs are unknown. But, in the hope that some of the aforesaid conservatism may be dispelled, and as the policy of your publication is mainly educative, I will crave enough space to inform my friends in the East that, in one case at least, their preconceived idea is correct. I have travelled through Eastern Ontario and Quebec. I have seen the bare, poor hills of the former, and the small farms and primitive methods of the latter; and I have heard of Nova Scotia as the "land of blue noses," and the State of Maine as the abode of the Yankee, with his long legs, lantern jaws, and nasal twang; but if they will come to the birthplace of the writer they will find themselves in the recognized "Garden of Canada," contiguous to the banner Counties of Oxford, Middlesex and Huron, and, although a bachelor farmer (they are common here because the girls won't live on farms), I can supply them with a bathtub, circular in form, of eight-barrel capacity, and painted by a real painter with real, natural paint, and available at any time—when the stock don't want a drink.

Perth Co., Ont. J. H. BURNS.

Forthcoming Events.

Winnipeg Industrial Exhibition—July 10th to 17th, 1909.

Temiskaming Once More!

Editor "The Farmer's Advocate":

This district, at present, is enjoying beautiful winter weather, with snow on the average of two feet in depth. This makes business hum in the woods. Some are drawing logs to the mills or rivers; others are getting out pulpwood, while still others are getting out railway ties and cedar for shingles. This is how the average settler here makes it possible to stay on his farm next summer and clear more land.

This district, in the near future, will become a first-class dairy and agricultural country. Grasses and clovers of all kinds flourish; peas, wheat, barley and oats grow to perfection; potatoes, roots and vegetables also yield abundantly. Being over one hundred miles further south than Winnipeg, and having an excellent clay-loam soil, nothing will prevent progress. As a wheat-growing center, it should in time be ahead of Manitoba or the other Western Provinces.

The settlers are somewhat engaged, after their day's work is done in the woods, discussing the Municipal Assessment Act of Ontario. To tax improvements, seems to belong to the dark ages, as it really discourages improvements. I would like to ask farmers in Ontario if they have not noticed how this act works contrary to progression and thrift in farming. Look at the farmer who underdrains his fields and fixes up his fences, gates, barns and residence—just what would make any country admired! To have the assessor raise the taxes the following year, probably more than the improvements have cost, is an injustice. This act should be amended. There should be a tax on land values only, to encourage in every way possible greater improvements.

I noticed in your valuable paper a discussion on the tariff. Some are writing up the free-trade policy as being in the best interests of Canada, while others declare protection to be the only thing for Canada. My opinion differs from either of those policies. Protection, on the one hand, assists the trusts and combinations of Canada to fatten and grow wealthy at the expense of the consumers; whereas, free trade would not be proper, especially letting in goods free from any country which puts a heavy duty upon the products of Canada. This free-trade policy would inevitably cause the taxpayers of Canada to pay a direct tax to the Parliament to develop the country. What should be adopted in Canada is a tariff for revenue only. This policy affords sufficient protection for any honest manufacturer, whereas it would also be the means of collecting revenue sufficient for all the development which may be required in Canada.

A TEMISKAMING FARMER.

Re Farmers' Interest in Home Manufactures.

Editor "The Farmer's Advocate":

There is a letter in your issue of February 4th, in which the writer says, in reading the letters, "Who is the Tyrant?" and "A Kick from a Cow," one who is not particularly biased may be led to think issues are not fairly set forth. Does he mean by this, one who has not looked into the matter? If so, I think the sooner he looks into the matter, the better for himself and all concerned, for I think that nearly every intelligent farmer who has studied this matter fairly has come to the conclusion that, as Canada's prosperity depends largely on the products of our farms, we—the farmers—should not be compelled to keep up the manufacturers by high tariffs and bounties. I am aware that it is necessary to raise a revenue sufficient to carry on the business of the country, and can see no better way than to have a fair revenue tax of say 20 per cent. levied on all imported goods. This would give our manufacturers quite an advantage, so that they could compete with imported goods.

Mr. Newton also says, "If other countries would adopt a free-trade policy, the arguments of free-traders would be more readily accepted." And also, "That it seems necessary to fight tariffs with the same weapons."

This, I think, is admitting that free-trade is right in principle. Now, Great Britain has a free-trade policy, and if Britain were to change her policy, and put on a high tariff to fight our tariff, who would be most hurt by the change? Certainly, the working classes in Britain would suffer most, which shows that it is the country that puts on the tariff that suffers most by it.

We, the farmers of Canada, have to sell our surplus finished product in an open market, and Britain is our best customer; but if the working classes in Britain had to get down to eating horse-flesh, as they have to do in Germany (which is a highly protected country), I think we would have to look for other markets, or take a lower price for our beef, pork, cheese, butter, eggs, apples, and also grain.

Mr. Newton further says, "Capital flows to what it receives protection." This may be true, but where is the justice? Is this on a sound principle?

Mr. Newton also says some of the talk about the rich men being fed on pap, the worm turning on the enemy, the man who cannot live in a free-trade country is not worthy the name of a man, makes him feel like using the sporting phrase, "Play the game!" Is this simply because he has no sound arguments to put forth against those which have been stated?

Parry Sound, Ont. JAMES S. MILLER.



A Futile Expedient.

To Our Club-raisers.

There are thousands of farmers who do not know what they are losing every year through not being subscribers to "The Farmer's Advocate and Home Magazine." Therefore, we want all readers of "The Farmer's Advocate" to act as club-raisers this year, and send us large lists of NEW SUBSCRIBERS.

If you send us two new names and \$3.00 to cover same (each new subscriber paying \$1.50), we will mark date on your paper forward one year as remuneration to you; or, for each single NEW NAME, accompanied by \$1.50, we will advance the date of your address label six months. Cash commissions or premiums, as preferred, for larger lists of new names.

In clubs of FOUR RENEWALS OR OVER, we will accept \$1.25 each.

Premiums not included in club offers.

Start raising your club immediately. Get "The Farmer's Advocate and Home Magazine" into every household in your locality.



Calamity Jane 3rd.

Representative of the Holstein cows in dispersion sale of the herd of Geo. Rice, Tillsonburg, Ont., on Friday, March 12th.

Wheat Terminals for Vancouver

Information has been given out at the head offices of the Canadian Pacific Railway, in Montreal, to the effect that terminal arrangements are being made for the handling of wheat via Vancouver. It is stated that 2,000,000 bushels of wheat are now ordered to be shipped that way, some of it having already arrived. It is also stated that practically all the Alberta wheat must now be shipped via Vancouver, especially to relieve the Eastern pressure.

Tariffs and Combines.

A deputation representing the Dominion Grange waited upon Hon. W. S. Fielding and Sir Richard Cartwright, on February 26th, to urge action in dealing with the tariff, to afford relief to the public against alleged oppression of trade combinations in Canada in unduly raising prices. The deputation, which included E. C. Drury, Master; Jas. McEwing, M. P. P.; H. J. Pettypiece, ex-M. P. P.; J. W. Curry, K. C.; W. L. Smith and J. W. Woods, presented a lengthy memorial setting forth the revelations of recent investigations before the courts, as to combines in Ontario, and urging that in many lines of articles in general use prices were unduly enhanced through trade combinations and agreements, assisted by a high-protection tariff. In the aggregate, it stated millions of dollars were annually taken from the public in the form of unfair profits. As an example, the four wall-paper manufacturing establishments of Canada were by the tariff placed in a position to exact at least \$300,000 a year from consumers more than the price of wall paper in the open markets of the world. In rubber, cottons, sugar, woodenware, and other lines, a similar situation existed.

"What is required," the memorial declared, "is that the Government shall appoint a special officer, to act under the direction of the Customs Department, whose duty it shall be to make immediate investigation into such circumstances as shall, when brought to the Government's attention, appear suspicious, and that, a report being taken, the Government shall institute a judicial inquiry at its own expense, and if the evidence adduced satisfies the Government of the truth of the same, that the duty on imports which would compete with combine products shall be reduced or abolished."

In reply, Hon. Mr. Fielding held out little encouragement of any action along this line. Under the present law, a remedy was provided by the Criminal Code for all the injustices complained of by the deputation. Some years ago the Government had contemplated action along the lines suggested, but practical difficulties presented themselves, and it had been decided to leave prosecution in the hands of the Provincial crown authorities. Sir Richard Cartwright advised the Grange to persist in a campaign of education among the farmers of Canada as a means of accomplishing tariff reform.

Western Horticultural Society.

At the annual convention of the Western Horticultural Society, held in Winnipeg, recently, the following officers were selected for 1909: President, John Caldwell, Virden; First Vice-President, Dr. Speechly, Pilot Mound; Second Vice-President, J. J. Ring, Crystal City; Secretary-Treas., Prof. F. W. Brodrick, Winnipeg. Directors—D. W. Buchanan, St. Charles; Dr. Thompson, St. James; Robert Aitkin, Elmwood; F. S. Jacobs, Dr. Baird, George Batho, W. G. Scott, Winnipeg; and A. M. High, Killarney.

New Dairy Legislation Desired.

Two committees on dairy legislation, one from the Eastern and one from the Western Ontario Dairymen's Association, met in Toronto last week, discussed the situation, and considered some proposed changes in the Milk, Cheese and Butter Act, and asked for some legislation which would control the building of new factories, by requiring location, site, etc., of proposed new factories to be approved by the officers of the Provincial Department of Agriculture. A resolution was passed, asking that the Dominion Government should extend to cheese factories the bonus for the building of cool-curing rooms along the same line as they did to creameries for the building of cold-storages.

The dairy-herd competition was discussed, and it was thought possible the Eastern Association might take the matter up along the same lines as the Western Association has done for the past three years.

Dairy Leaders in Man

At an enthusiastic and largely-attended convention of the Manitoba Dairymen's Association, held in Winnipeg, recently, instructive and interesting addresses were given by experts. The officers selected for 1909 are: President, W. B. Gilroy, MacGregor; First Vice-President, J. P. O. Allaire, St. Boniface; Second Vice-President, L. A. Race; Sec. Treas., Prof. W. J. Carson, B. S. A., Winnipeg. Directors—D. Langrill, Chas. Tully, L. A. Gibson, J. R. Nesbitt, J. M. Gill. Representatives to Fair Boards—Winnipeg, Professor Carson; Brandon, L. A. Gibson.

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MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, on March 1, receipts numbered 1,315 cattle, 19 hogs, 219 sheep, 31 calves, 103 horses. Quality of cattle good; trade fair. Export steers, \$5 to \$5.50; bulls, \$4 to \$4.50; prime picked lots of butchers', \$5 to \$5.10; loads of good, \$4.60 to \$5; medium, \$4.20 to \$4.50; common, \$3.75 to \$4.10; canners, \$1.50 to \$2.50; milkers and springers, \$45 to \$70; calves, \$4 to \$7. Sheep, \$4 to \$4.25. Lambs, \$5.50 to \$6.85 per cwt. Hogs, \$6.75, fed and watered, and \$6.60 at country, fed, f. o. b. cars.

REVIEW OF LAST WEEK'S MARKET.

Receipts of live stock at the City and Union Stock-yards last week were again light.

Receipts numbered 230 cars, consisting of 3,657 cattle, 3,173 hogs, 887 sheep, 112 calves, and 126 horses.

On account of the light deliveries of cattle, salesmen and drovers hoped to raise prices considerably last Monday at the Union Yards, and then again at the City market on Tuesday and Thursday, but they met on each occasion with disappointment. The outlet was not nearly as large as was expected, buyers from outside points not being nearly as numerous as was anticipated, and after strenuous efforts, a good share of the receipts had to sell on a steady basis. A few of the choicest lots sold about 10c. higher, but practically the bulk of the common and medium classes sold at steady prices.

Exporters.—Export steers sold from \$5.15 to \$5.60. Export bulls, \$4 to \$4.65, with an odd one now and again of extra quality selling at \$4.75 and even \$5 per cwt.

Butchers.—Prime picked lots sold at \$4.85 to \$5.15; loads of good, \$4.50 to \$4.85, and even \$4.90 for one selected load; medium, \$4 to \$4.40; common, \$3.50 to \$3.90; canners and common cows, \$1.50 to \$2.65; cows, medium to good, \$3 to \$4.25; export cows, \$4.50 to \$4.75.

Feeders and Stockers.—Few feeders or stockers were offered, and prices were unchanged, as follows: Best feeders, 900 to 1,000 lbs. each, at \$3.75 to \$4.25; medium, \$3.60 to \$4; stockers, 500 to 700 lbs. each, at \$2.75 to \$3.

Milkers and Springers.—Receipts fairly large, with prices steady, at \$30 to \$60 each. Extra quality cows, which are scarce, sell at \$65 to \$70.

Veal Calves.—Receipts moderate; prices firm, at \$3 to \$7 per cwt.

Sheep and Lambs.—Deliveries of sheep and lambs were light all week, with prices very firm. Export ewes, \$4 to \$4.50 per cwt.; rams, \$3.25 to \$3.75; grain-fed lambs, \$6.50 to \$7 per cwt.; common lambs, \$5.50 to \$6 per cwt.

Hogs.—Receipts of hogs were moderate. Packers quoted prices steady, at \$6.60 for selects, fed and watered at the market, and \$6.40 to drovers, f. o. b. cars

at country points. Drovers from several points in Western Ontario report prices at \$6.50 to \$6.55, f. o. b. cars. At the close of the market on Thursday, packers quoted selects, \$6.75, fed and watered at the market, and \$6.50 to \$6.55, f. o. b. cars, country, which shows that hogs are on the upward tendency, and we would not be surprised to see them \$7 at an early date.

Horses.—Trade at the Union Horse Exchange last week was better than for some time. At Monday's and Wednesday's auction sales, Manager J. Herbert Smith reported having disposed of 100 horses, at fair prices. Some few, of choice quality, brought better prices than usual. One pair, heavy draft black mares, five years old, weighing 3,100 lbs., 16.2 hands, sold at \$425. Another pair, matched, mare and gelding, six and seven years, 3,000 lbs., 16 hands, sold at \$395. One pair matched bay geldings, five and six years old, sold at \$315. The general run of prices were as follows: Drafters, \$160 to \$200; general-purpose, \$140 to \$180; wagon horses, \$160 to \$210; drivers, \$100 to \$160; serviceably sound, sold from \$35 to \$80.

BREADSTUFFS.

Grain.—Wheat—No. 2 white, \$1.02 to \$1.03 bid, at outside points; No. 2 red, \$1.01; No. 2 mixed, \$1.02 bid. Manitoba—No. 1 northern, \$1.18½ to \$1.19; No. 2 northern, \$1.15½ to \$1.16, on track at bay ports. Rye—No. 2, 68c., outside. Peas—No. 2, 89c., outside. Oats—No. 2 white, 45c. bid, outside; No. 2 mixed, 44½c. bid; No. 3 white, 40½c. bid, outside. Barley—No. 2, 57c.; No. 3X, 55c. to 56c.; No. 3, 53c. to 54c., outside. Corn—American yellow, No. 2, 73c. to 73½c.; No. 3, 72c. to 72½c.; Canadian, 68c. to 69c. Buckwheat—No. 2, 58c. to 59c., outside points.

HAY AND MILLFEED.

Bran.—Scarce and firm, at \$24.50, for car lots, in sacks, f. o. b. cars, Toronto. Shorts—Car lots, in sacks, at Toronto, \$25.50 to \$26. Flaxseed meal, in sacks, \$3 to \$3.25 per cwt. C. Caldwell & Co., Front street, Toronto, are selling a Manitoba meal, for live stock, composed largely of flaxseed, at \$28 per ton. Hay—Baled, \$10.75 to \$11 for car lots, on track, Toronto. Straw—Baled, in car lots, Toronto, \$7 to \$7.50.

COUNTRY PRODUCE.

Butter.—Receipts of farmers' dairy have not been quite as large, but plenty for demand. Creameries were more plentiful, and prices easier. There is so much butter of inferior quality coming on the market that dealers are at a loss to know what to do with it. But there is one brand of creamery, Locust Hill, that steadily holds its own, and is still selling at 30c. to 31c. Dealers quote prices as follows: Creamery round rolls, 27c. to 28c.; separator dairy, 24c. to 26c.; store lots, 19c. to 21c.; creamery solids, 24c. to 25c.

Eggs.—Receipts of new-laid are about equal to demand, and prices are quoted easier, at 27c. to 28c. Cold storage are a thing of the past, the supply having been exhausted, which is one factor that will help to keep egg prices strong.

Cheese.—Nearly all of the cheese of last year's production being in the hands of the dealers, prices are not likely to go lower, but higher. In fact, there is a stronger feeling on the market, with an upward tendency. Twins sell at 14c.; large, 13½c. to 13¾c.

Honey.—The market for honey is strong, especially for comb, which is scarce, and worth from \$2.50 to \$3 per dozen; extracted, 10½c. to 11½c. per lb.

Potatoes.—Prices firm. Car lots of Ontarios sell at 64c. to 65c. per bag, on track at Toronto.

Beans.—Market has developed a firmer feeling, and prices are higher. Primes, \$1.90 to \$1.95; hand-picked, \$2.05 to \$2.15.

Poultry.—Choice poultry is scarce, and prices firm. Turkeys, 22c. to 24c.; geese and ducks, none offered; chickens, 15c. to 16c.; fowl, 11c. to 12c. per lb.

HIDES AND WOOL.

E. T. Carter & Co., wholesale dealers in wool, hides, etc., quote prices as follows: Hides—No. 1 inspected steers, 60 lbs. up, 11c.; No. 2 inspected steers, 60 lbs. up, 10c.; No. 1 inspected cows, 10½c.; No. 2 inspected cows, 9½c.; No. 3 inspected cows and bulls, 8½c.; country hides, 8½c. to 8¾c.; calf skins, 12c. to 14c.; horse hides, No. 1, \$2.75; horse

hair, per lb., 30c. to 32c.; tallow, per lb., 5½c. to 6½c.; sheep skins, each, \$1.10 to \$1.20. Raw furs, prices on application.

VEGETABLES.

Onions, per bag, 70c. to 80c.; turnips, per bag, 35c.; parsnips, per bag, 35c. to 40c.; carrots, per bag, 25c. to 35c.; beets, per bag, 35c. to 40c.; evaporated apples, 7c. per lb.

Apples.—Good to choice winter apples sell at \$3.50 to \$5 per bbl., by the lot of several barrels.

SEED MARKET.

The Wm. Rennie Co. report little doing on the seed market, with prices about steady, as follows: Alsike, fancy, \$7.25 to \$7.60; No. 1, \$6.90 to \$7.20; No. 2, \$6 to \$6.50; red clover, \$4.50 to \$5.75; timothy, \$1.30 to \$2.

Montreal.

Live Stock.—There was a firm tone to the market for cattle, although the advent of the Lenten period necessarily reduces the demand. Supplies were considerably smaller than during the past few weeks, however, and exporters were in need of a few head for completion of shipments, and Quebec also took some. Prices were about 5½c. to 5¾c. for choice, 5c. to 5½c. for good to fine, 4c. to 4½c. for medium, 3c. to 3½c. for common, and as low as 2½c. for inferior. The market for sheep and lambs was steady, choice lambs selling at 6½c. to 7c. per lb., and good at 5½c. to 6½c., choice sheep selling at 4½c. to 4¾c. per lb., and culls as low as 3½c. per lb. Calves were in small supply, but as the demand fell off greatly, prices held about steady, at 5c. to 7c. per lb., live weight. Receipts of hogs decreased, and it would seem that the stocks in Manitoba have now been practically all shipped east, so that the supply for the balance of the season will be light. The market was, accordingly, strong, the price being 7½c. per lb.

Horses.—There was a very dull market for horses, and dealers reported that almost nothing had been sold. No horses were taken for out-of-town account. A few were purchased by local people. Supplies were very light, so that prices held steady. Agents are scouring the country looking for desirable, heavy-draft horses, and where these are to be found, high prices are being demanded for them. The market was steady, as follows: Heavy draft horses, weighing 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,400 to 1,500 lbs., \$185 to \$240 each; good blocks, 1,300 to 1,400 lbs., \$175 to \$200 each; small or inferior, 1,000 to 1,100 lbs., \$100 to \$150 each; broken-down animals, \$50 to \$75 each; and choice saddle or carriage animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—There was a good demand for dressed hogs recently, although Lent occasions a falling off in consumption. Prices held steady, at 10c. to 10½c. per lb. for fresh-killed, abattoir-dressed, 9½c. to 9¾c. for Manitoba dressed and 8½c. to 9½c. for country dressed. Bacon and hams of different kinds were also a little on the dull side. Prices were fairly steady, being 11½c. to 12½c. for green bacon of all weights, boneless bringing the top figure, while smoked bacon was 15c. per lb. for thick boneless, 15½c. for select boneless, 16½c. for best backs, and 11c. for inferior grades. Hams held at 14c. per lb. for all weights, save extra small, from 9 to 12 lbs., these being 15½c. Compound lard was 9c. to 9½c., pure being 12½c. to 13½c., and barrelled pork, \$21 to \$25.50 per barrel, according to quality.

Poultry.—The interest in this market has decreased with the volume of supplies, but prices were higher. Choicest fresh-killed turkeys were 20c. to 21c. per lb., best frozen being 19c. to 20c. Best fresh-killed chickens brought 15c. to 16c., and frozen 12c. to 14c., ducks being the same, while geese and fowl ranged from 10c. to 12c. per lb.

Potatoes.—The market for potatoes was rather on the easy side. Supplies were only moderately large, and shippers asked 80c. per 90 lbs. here, while dealers turned the stock over at 83c. to 85c., carloads, on track. Smaller lots were higher. This was for Green Mountains, Quebec stock being available at 5c. less.

Eggs.—This market, owing probably to the soft weather recently experienced, took another weak turn last week, and

prices of fresh-gathered eggs tumbled down to 28c. per dozen. Some thought that these figures would not last long, as the roads were in bad shape and consumption during Lent is more active. Very few held eggs of any kind for sale, and prices ranged around 24c. to 25c. or so for best—or a shade more. On Monday there was a slight advance.

Butter.—This market has attracted more attention than any other in produce lines. Last week further declines were experienced, and prices were many cents below where they were about the first of the year. The continued decline is said to be due to merchants in outside towns holding large stocks. Local merchants are fearful of these being unloaded upon this market. It was said that there were 41,000 packages of creamery and 12,000 dairy held here, which is far too much for local consumption. It seems that fresh-made butter could be had at 21c. to 22c. per lb., and perhaps less, while summer was about the same figure, and fall 23c. to 25c. Dairy rolls were quoted at 19c. to 20c., and tubs at 17c. to 19c., and, possibly, at even 16c. Some thought that possibly the manufacture of margarine—recently exposed and prevented—might have had something to do with the oversupply of butter. On Monday prices dropped a cent on all grades.

Cheese.—There was a sharp export demand for colored cheese, but practically none for white. The former, best Ontarios, sold at 13½c., as against 12½c. for white. Other grades of white were available as low as 12½c.

Grain.—The market was generally firm. Oats were quoted as follows, carload lots, store: Canada Western, No. 2, 50½c. to 51c.; extra No. 1 feed, 50c. to 50½c.; No. 1 feed, 49½c. to 50c.; Ontarios, No. 2, 49c. to 49½c.; No. 3, 48½c. to 49c.; No. 4, 47½c. to 48c.; No. 2 peas, 98c.; No. 3 corn, 75c.

Flour.—The market advanced again, and Manitoba first patent flour was quoted all the way from \$5.80 to \$5.90 per barrel, seconds being \$5.80 to \$5.40, strong bakers' ranging from \$5.10 to \$5.20. Ontarios also advanced, prices being \$5.40 to \$5.50 per barrel for patents, and \$5 to \$5.10 for straight rollers.

Feed.—Bran was undoubtedly firm and quotations were only approximate, conditions being attached. The price for bran ranged from \$22 to \$24 per ton, and it was hard to get it even at the higher figure. Shorts were \$24 to \$25. Oil cake was quoted at \$32 and cottonseed at \$33.

Seeds.—Prices were unsettled, but were quoted at \$13 to \$14 per 100 lbs. for red clover, \$16 to \$18 for alsike, and \$5.25 to \$6.50 for timothy, in bag lots.

Hides.—Prices of hides were a cent down, at 8c., 9c. and 10c. per lb., respectively, for Nos. 3, 2 and 1 hides, calf skins being 12c. and 14c. for Nos. 2 and 1, while lamb skins have advanced, under a good demand, to \$1 each. Horse hides, steady, at \$1.50 and \$2. Tallow, 1½c. to 3½c. per lb. for rough, and 5½c. to 6c. for rendered.

Chicago.

Cattle.—Steers, \$5 to \$7; cows, \$3.60 to \$5.50; heifers, \$3.25 to \$6; bulls, \$3.40 to \$5.25; calves, \$3.50 to \$8.50; stockers and feeders, \$3.25 to \$5.40.

Hogs.—Choice heavy shipping, \$6.60 to \$6.65; butchers', \$6.50 to \$6.65; light mixed, \$6.35 to \$6.45; choice light, \$6.45 to \$6.55; packing, \$6.40 to \$6.55; pigs, \$5.25 to \$6; bulk of sales, \$6.40 to \$6.55.

Sheep and Lambs.—Sheep, \$4.25 to \$5.30; lambs, \$6.50 to \$7.95; yearlings, \$5 to \$7.20.

Buffalo.

Cattle.—Prime steers, \$6.15 to \$6.50. Veals, \$7 to \$11.25.

Hogs.—Heavy, \$6.83 to \$7; mixed, \$6.75 to \$6.90; Yorkers, \$6.50 to \$6.85; pigs, \$6.30 to \$6.40; roughs, \$5.60 to \$6; dairies, \$6.40 to \$6.80.

Sheep and Lambs.—Lambs, \$5 to \$8; ewes, \$5 to \$5.75; sheep, mixed, \$3.50 to \$5.75.

British Cattle Markets.

London cables for cattle 13½c. to 14c. per pound, dressed weight; refrigerator beef, 10½c. to 10¾c. per pound.



Life, Literature and Education.

"It now looks as though Canada will lead the Christian world in a sane and serious effort to meet the national share of responsibility to 'Preach the Gospel to every creature,' in one generation." So say the promoters of the Laymen's Missionary Movement, whose congress, which is to be held in Massey Hall, Toronto, from March 31st to April 4th, will mark "the first time in history that the men of a nation have met to consider and adopt a missionary policy for their country."

The history of this great movement is unique. It was first spoken of in connection with the centennial celebration of the Haystack prayer-meeting, in New York, Nov. 13th and 14th, 1906, and taken up immediately afterwards by a group of laymen, who met for prayer in the chapel of the Fifth Avenue Presbyterian Church, and who finally drew up resolutions having for their aim (1) to project a campaign of education among laymen; (2) to devise a plan looking to the evangelization of the world in the present generation. Since that time the work has progressed with giant strides, and crowded meetings have been held in connection with it in every part of the United States and Canada, also in parts of Great Britain, Germany and Australia.

At the coming congress, which will be known as the Canadian National Missionary Congress, 2,000 laymen will, it is expected, sit as commissioners, in addition to thousands of clergymen, all of whom will be regarded as honorary commissioners, and addresses will be given by representatives from almost every part of the world.

The thought of Christianization of the world brings to mind the almost pitiful effort which China is making to break loose from the curse of opium, as evidenced in her initiation of the International Opium Congress, recently held in that land—an effort pitiful because apparently so stupendous. The Chinese have become practically an opium-eating race; there are over 400,000,000 of them, and opium is grown in China, as well as imported. Evidently, much must depend on the awakening of individual effort for self-help, and yet China is beginning from the outside, and is calling upon surrounding nations for help in a prohibition that cannot be accomplished without their aid.

The campaign must surely bring the blush to the cheek of every Briton who remembers that, in the interest of Indian revenues, Britain has twice gone to war to force upon China a traffic which she had declared contraband, and that to-day she is virtually "the only Power under whose auspices an export trade in the drug is carried on." The fact that opium is grown in China, as well as India, is, it is to be feared, but poor excuse, and it is somewhat reassuring to know that the British House of Commons has at least gone so far as to condemn the traffic as "morally indefensible." Ostensibly,

without Britain's support, China's campaign cannot succeed, and that support, if Britain would stand for right, as well as for might, must not be withheld.

The Spelling Reform (?) Movement.

Perhaps we are stupid, but we cannot see the consistency in making a few changes in orthography—enough to make a printed page look like a cartoon to those who have no quarrel with the old method—while leaving other words, seemingly as much in need of "improvement," untouched. For instance, in the paragraph quoted by Mr. Dearness in last week's issue, as a sample of the method approved by the Simplified Spelling Board, why leave out the "a" in "treasure," while retaining the "i" in "believe"? "Beleeve" would seem to be phonetic. Or, again, why retain the "tion," surely a stumbling-block to children who cannot spell? Why not write "instrukshun," "justifikashun"? Going further, why not write "paws" for "paws," and "langwage" for "language"? Why retain the "g" in "might," the second "l" in "smallest," etc.? If brevity and meaning only are to be considered, old rules in regard to syllabification must surely be discarded. In short, why not follow the orthography of Bill Nye all the way through, and be done with it? He, if anyone, spelled phonetically.

This settled, why not turn the pruning-knife on the King's English itself—as it is spoken, as well as written? Time would be gained and grammar simplified by leaving off the "ly" of adverbs, and the "en" of past participles. Indeed, if the only object of language is to convey idea, elimination need know no bounds. "He went to the tab and did his exercis quick, neet and wel," conveys a perfectly clear idea; so, "He had spoke first."

Why retain the "ly" and the "en," used so much more frequently than the much-maligned "me" of "programme," etc.?

Why? Why?

TWO OLD-FASHIONED TEACHERS.

Reading in the Farm Home.

Honors Thesis, by Thos. B. Faulds, O. A. C., Guelph.

Of the factors which contribute to the stability and advancement of agriculture in our land, and the efficiency and happiness of our farmers, that of reading is one of the most important. In this age of rapid evolution and wide learning, the old methods of oral and practical instruction by father to son, while still essential, are no longer sufficient. The farmer, to keep abreast of the times, as well as to attain a well-rounded character as a man and a citizen, must read fully, systematically and intelligently.

There is no lack of material, of a purely agricultural nature, at least, for the farmer to read.

Text-books on nearly all subjects in the scope of agriculture are published. Lists of these may be obtained from publishers and their

agents, or on application to Government Agricultural Departments, agricultural colleges and experimental farms. A "Special Catalogue of Books in Agriculture, 1907," issued by the Ontario Education Department, and the U. S. Department of Agriculture Experiment Station Record, will be found of use. In the latter, short reviews and abstracts of books, pamphlets, bulletins, etc., published on agriculture and the allied sciences, are given.

There are also the bulletins published by the Canadian and U. S. Governments Experimental Farms and Colleges, and the Government Blue Books. If we glance at, say, the "List of Bulletins and Free Publications issued by the U. S. Department of Agriculture," in which we find the titles of many hundreds of treatises on a great variety of subjects, and remembering that there are many other bulletin-distributing centers throughout the United States and Canada almost, if not quite, as prolific as that at Washington, we get some idea of the great extent of this contribution to farm literature.

Then there are the agricultural journals, some devoted to agriculture in general, others to its various branches, or specific to different districts and climates.

The text-book is usually the work of careful scientific study and long experience. By its use, the reader can obtain a knowledge of such matters as the botanical nature of the crops he grows, of the chemistry of soils and soil foods, the effects of cultivation and climatic conditions, the physiology and pathology of animals, the science of feeding, etc., as well as detailed practical instruction in the various branches of agriculture. It is not too much to say that, without the text-book, a substantial and systematic knowledge of agriculture can hardly be obtained.

The bulletins, too, are a mine of valuable information, the contribution of the most expert observers and experimenters. They are somewhat similar in character to the text-book, but treat of a variety of minor subjects which do not naturally belong to the province of the latter.

The work of the scientist and experimenter, as we find it recorded in text-book and bulletin, is of great value to the farmer. For example, no doubt good crops may be raised and good animals produced by a farmer having little or no purely scientific knowledge, but he is not well fitted for emergencies. The observations he has made, and by which his farming is governed, are applicable only to conditions with which he is familiar, and when these conditions are changed, he is at a loss. Not so with the scientific farmer. He has a knowledge of general principles, of the great natural laws governing all conditions, and is thus more or less able to meet all contingencies. The farmer, again, who learns by his own experience, only, may learn well, but with much loss of time and property, which would have been prevented if he had made use of the printed results of trained experimenters. With the one method, the same mistakes and losses are repeated by each individual farmer; in the other, the many profit by the work of the few.

The limitation of the text-book is that it does not march with the times. It has no advice, except in a general way, to give on those contingencies, such as the introduction of new crops, recent scientific discoveries, changing market and economic conditions, etc., to which the progress of time is always giving birth. The bulletins, owing to their small content and continuous publication, serve this purpose to a greater extent.

The agricultural paper, however, is the every-day adviser of the farmer, and to it he should pay the most frequent and fullest attention. In it, questions of the moment, or of local value only, are considered difficulties, and problems arising from day to day are explained and discussed, and expert advice given; experiences and experiments described, reports given of shows and conventions, books reviewed, and inventions and labor-saving devices noted, legal decisions and new laws reported, etc., all such information being not only conducive, but necessary, to the farmer's success.

The agricultural paper may be also said to constitute a society in the home—a society of all interested in agriculture. The reader is brought into frequent contact with the great community of the farm, and becomes acquainted with what is going on in spheres other than the narrow one in which he himself is placed. He thus not only profits by the experience of others, but, getting an insight into their difficulties, opportunities and energies, he is induced to become more progressive in his ideas, wider in his sympathies, more patriotic and public-spirited in his plans and conduct.

The market reports, also, are a valuable feature of the paper. Selling is almost as important as producing to the farmer, and he cannot sell to the best advantage unless he is conversant with the prices given at the different markets, and the supply and demand in different localities for the various articles of farm produce. The same information will also enable him to buy cheaper when he requires to do so.

The farmer's reading should also include all that will give him efficient knowledge of public questions. He should be familiar with such matters as public health and sanitation, education, police supervision, road construction and repair, etc., and with such questions as public ownership of public utilities, restriction of immigrants, etc. He should know something of economic science, of modern methods of finance, such as the control of markets, the operations of trusts, etc.; of the condition and progress of the arts and sciences, manufactures and commerce; of the great movements and tendencies of the people; of the character and aims of those in office in town and country; of the business, social, economic and religious conditions affecting his own and other districts, provinces and nations; of the political, social and economic history of the past, particularly as it bears on the present and future; as much as is practical, in fact, of everything that will enable him to use a wise voting and personal influence on public affairs.

Some of this, as economic science and history, can, and must, be got from text-books, but here, again, the periodic journal is absolutely essential. The reading par excellence of the public man is the newspaper, for in it is reflected the whole life of the people.

The most valuable parts of the newspaper are the editorials, which, in good newspapers, contain the concisely-stated opinions on public questions of men of education, experience and intelligence, parliamentary and municipal reports, reports of public meetings, speeches, etc., and general news of people and events of importance. News which is merely sensational or evidently untrustworthy should not be read.

The newspaper-reader should not allow himself to become prejudiced. He reads for enlightenment and knowledge of the truth, and should subscribe for at least two papers of differing views, interests and political party.

Besides newspapers, there are the various journals which deal, in more detail, with specific subjects of more or less public interest. Thus, there are religious magazines, journals devoted to the progress and aims of social organizations, the official organs of political societies, educational and college magazines, reviews, etc.; also magazines of general and varied content, as the Canadian Magazine, the American Outlook, Everybody's Magazine, etc.

The farmer should also be acquainted with general standard literature, and with some of the current periodical and other literature devoted to general culture and entertainment. Besides being an agriculturist and man of affairs, he should have a share in the great literary inheritance provided by the poets, philosophers, saints, statesmen, novelists, the men of literary genius of ancient and modern times. Not else can he become the "full man" which reading "maketh."

It is in this respect, perhaps, that the average farmer's reading is most defective. While many take pains to acquaint themselves with purely agricultural literature, and are interested in social and political questions, they allow the wealth of standard literature to remain unclaimed.

That it is real wealth, only the ignorant can doubt. Many of the dull, lonely lives spent by the backwoods farmers would be enlivened, ennobled and enriched by the literary companionship of the great writers. Who can be dull with Dickens or Mark Twain, Shakespeare or Longfellow? And it is difficult to be lonely when one has at hand a library stored with the best thoughts of the most interesting men of all ages. The farmer's life, too, is apt to be sordid. His days are so full of manual labor, and that often of a monotonous and unpleasant kind, that, unless he is of an optimistic and progressive nature, he is apt to think too much of the drudgery and commonness of life, and less of the beauty and nobility of it. He lives close to nature, it is true, but too often he sees in her only the provider—often the grudging provider—of his daily food. But let such a farmer listen to the teaching of the poet, with his true and deep insight into life, and his inspired conception of nature, and life and nature will have new meanings to him.

Provision should be made, too, for the literary needs of the farmer's wife, those differing in many respects from those of the farmer himself. Besides varied standard and current literature, place should be found in the home for one or two of the periodicals of distinctive feminine or domestic interest, and some of the books relating to domestic economy, hygiene, etc.

Reading for the children must not be neglected. Indeed, the significance of this cannot be too much emphasized, as it is in childhood that the habit of reading is naturally formed. If the child is to acquire a pleasure in reading, his books must be carefully chosen. Their nature, too, will change as the child grows.

each period of his development requiring a new form of literature.

Young children will be best suited with simple stories and fairy tales. Then will come stories of heroism, of wonderful deeds of adventure, excitement and mystery. The beautiful and inspiring stories found in the Bible should be at the child's command, and such standard books as "Hans Anderson's Fairy Tales," "Arabian Knights Entertainments," Lewis Carol's "Alice in Wonderland," Bunyan's "Pilgrim's Progress," Lamb's "Tales from Shakespeare," the novels of Henty, Cooper, Ballantyne, Kingsley, etc. When the taste for these stories passes, the nature of the reading will largely be decided by individual inclination, but the aim of the parents should be to encourage a taste for those books of sterling worth which have stood the test of time, and a healthy dislike for the "yellow-back" and "dime-novel" class of literature, which is usually low in tone and effect, and devoid of high thought. The child's reading, from fairy tales onward, should be a gradual introduction to the great field of world literature.

It must be admitted that the present condition of farm reading in Canada is by no means ideal.

There is no doubt that many farmers are not interested in or do not perceive the true value of proper reading. The reasons for this are many and complex, but the foundation cause may be stated in one word— isolation. Canada is a pioneer country, and that separation from the active life of the world, which is the pioneer's greatest hardship, has been, and still is, the lot of many of our farmers. This is intensified by the vastness of the Dominion and the scattered character of its settlement. Farms are often considerable distances from railroad stations, post offices, large towns, or even villages. Schools are few, and, in the winter time at least, difficult of access, while the teaching is often inadequate.

The natural effect of this is the inducement, sooner or later, of a narrow life, a life tending to become more and more absorbed in its own small affairs, and concerned less and less with the progress and activities of the great outside world. The isolated farmer, also, not being in a position to observe and understand the progress made by other people, learns to put too high a value on his own knowledge and opinions, and on those of his father and neighbors. It is in this way that the prejudice against reading and college and book-learning has arisen, which has so stubborn a hold on the minds of some farmers.

It may be claimed that those conditions do not apply to the older-settled Eastern parts of the Dominion, but the fact is that they are more apparent here than in the West, because in the older districts the effects of isolation have had longer time to develop.

If, then, we desire to improve the farmer's reading, we must first endeavor to reduce this isolation, and to remove its narrowing effects.

To this end, such public questions as State control, or subsidy of railroads, telegraphs and telephones, building and upkeep of good roads, establishment of consolidated schools, means of inducing desirable immigration, or any project which makes for improved intercommunication, closer settlement, or generally improved conditions, should be carefully considered.

The influence of Farmers' and Women's Institutes is very beneficial. Farming communities are, through them, brought into contact with people who are not narrow and prejudiced, but are wide-awake and progressive, able to give both enlightenment and encouragement, capable of rousing the ambition to improve, and of pointing out the way to do so. The Institute also gives the progressive members of the community a chance to meet and influence the non-progressive.

The improved results obtained by

scientific methods of agriculture should be brought to every farmer's attention. This can be done by means of fairs and shows, especially the more important ones; by model and experimental farms; by experiments conducted by members of the Experimental Union, and other ways. Every inducement should be given to the farmer to improve himself in this way by arrangement with railroad companies for reduction of rates, etc. The June excursions to the Ontario Agricultural College afford an example which should be followed by all experimental farms and colleges.

The influence which may be and is exerted by students and ex-students of agricultural colleges is very important. College students are, or should be, the "Prophets of Progress" in our farming communities.

As the life of the farmer widens by these and other direct and indirect means, his interest in reading inevitably grows. He sees the benefit and necessity of reading, but he has more or less difficulty in making his reading what it ought to be. This is precisely the position of a great many Canadian farmers today, and the question, therefore, comes to be: "How can these difficulties be removed?"

Institute speakers may make themselves of direct use in this respect, both by lecture and personal conversation.

Much can be and is being done by journals and newspapers. The example of "The Farmer's Advocate" in this connection is well worthy of notice. Not only does it print reviews of text-books and bulletins, and contain useful editorials and paragraphs on the subject of books and reading, but it instituted, a year or two ago, a literary society among its subscribers, through which, by means of model literary selections, appreciations of these, and advice on studying them by competent teachers, and essays and criticisms by members of the society, a fair knowledge and understanding of good literature may be secured.

Mention should be made of the admirable work being done by means of short courses, lectures, distribution of literature, etc., by the High School agricultural teachers recently appointed by the Government.

College students and ex-students can be of great assistance. They have become acquainted with a great variety of literature, by means of college libraries and magazine rooms, and in other ways. In this connection, it might be suggested that it would be advisable for every farmer visiting a college to carefully inspect its library. If this could be done with the assistance of a guide capable of giving suitable advice, much practical benefit would be obtained; in fact, organized inspection of the library books and magazines should be a feature of College short courses, conventions, etc.

There is room for more lectures on the subject of reading at shows, fairs, etc.

Much may be accomplished, too, by the formation of rural literary societies and reading clubs, by village libraries, libraries circulating by means of the post office, etc.

The example of the United States in the introduction of farmers' reading courses, is greatly to be commended. These courses are chiefly operated by agricultural colleges and experiment stations, in conjunction with the State. The work undertaken is briefly stated in Farmers' Bulletin No. 109, U. S. Department of Agriculture, as follows: "The college or station lays out certain courses of agricultural reading on such subjects as soils and crops, dairying, fruit culture, farm economies, and other like topics; selects sets of books for reading which most clearly set forth the principles underlying these subjects; provides for superintending the work, and makes arrangements for supplying prospective readers with books, examination questions, etc., and to act as a sort of bureau of information." No expense is incurred by

members, except for books and a small enrollment fee. These courses have met with pronounced success, and have helped greatly to stimulate the reading of members, and to put it on a systematized basis.

It has been said that intelligent reading is the result of a truly progressive spirit, but it is also true that, without proper reading, that progress cannot continue. The question of reading in the farm home is, therefore, vital to the interests of agriculture. It is more than that. It is of national importance, for, as the farming community is the chief element of our country's strength, so, in the welfare of that community is bound up the prosperity of our whole Dominion.

The Quiet Hour.

The Good Physician.

Happy is the man whom God correcteth: for He maketh sore, and bindeth up: He woundeth, and His hands make whole.—Job. v., 18, 19.

Let us visit the hospital patients!—
Tread lightly across the floor,
For the bodies are weak and afflicted
And the lonely hearts are sore.
Here the nurses are kindly but busy,
On the rush from morning to night,
With no time for the friendly attentions
They gladly would give if they might.
Here the days are so long and so weary,
While the nights!—they are longer still:
Oh, it's easy to preach "trust and patience."

But it's hard, very hard, to be ill.
Men talk of a loving Redeemer
Who is able and willing to save—
A poor man who toiled in a workshop,
Yet mighty o'er death and the grave—
"If He can help, then why is He silent?"
Says one, with a weary sigh,
"If a word or a touch can heal us,
Then why should we suffer and die?"
But jewels of price must be polished
And cut till each facet is bright;
And gold must be tried in the furnace
Till it shines and reflects the light.
Yes, the Master is cutting His jewels
And purging the dross from the gold;
For He loves every soul that He chastens.

With a love that cannot be told.
"They are MINE!" He declares, "all these jewels,
Each stone must be polished with care!"
And no patient is ever neglected,
For the Good Physician is there;
With a hand that is tender and skillful
And a patience that never can tire,
Giving always the very best treatment
Each case in the ward may require.
He could easily say to each patient,
"Rise up from thy bed and depart!"
But, through the weak, suffering body,
He reaches right down to the heart.
Some day you will look back and wonder
How you ever had doubted His skill;
So, won't you trust now and be patient?
Feeling sure that He loves you still.
HOPE.

Our Lover-God.

The LORD thy God in the midst of thee is mighty: He will save, He will rejoice over thee with joy; He will rest in His love, He will joy over thee with singing.—Zeph. iii., 17.

"Close to my heart, so close,
Ah, closer still, come, Jesus, come!
The heart that lives but to fulfil Thy will,
Make it Thy home."

Love is the great crown of life, the only prize—save holiness—which is worthy of a man's most strenuous endeavor. It is Love that keeps the human race young. Like the fresh, green grass and tender leaves, which are new every spring, Love reigns as a conquering King in every country and in every age. Poet and novelist never seem to think that the theme has been worn threadbare, for "all the world loves a lover." Love is an inspiration to strengthen the arm of a man and nerve the loyal heart of a woman, it is the rightful inheritance of the tiny baby—the baby that feels so safe and happy in its loving mother's arms—and it is the debt due to those who have

grown old in loving service and need tenderness quite as much as do the little children.

Our love-hunger—the way we insistently claim love and give love—is one of the marks which show our kinship with Him whose greatest name is LOVE. And if we lose the romance of life, if we settle down into a prosy grayness after the first rosy dreams of youth have faded, it is our own fault. God does not drive us to read novels in order to satisfy our natural love of romance; He is prepared to satisfy the craving which is His own gift to each infinitely hungry heart. Read the Bible and see how constantly God offers Himself as a LOVER to His people. Wonderful is the condescension of such passages as this: "I will betroth thee unto Me for ever; yea, I will betroth thee unto Me in righteousness." And think of S. Paul's declaration that the bond of love, which makes husband and wife one, is simply the earthly reflection of the bond which makes Christ and His Bride, the Church, One. Keble, in one of his beautiful hymns, speaks of lonely souls whose lament is that "none loves them best"; and he goes on to declare that such love-hungry souls may fill their lives with the all-satisfying Love which is always pressing in the door of their hearts:

"Thou art as much His care as if beside
Nor man nor angel lived in heaven or
earth."

Just think what it means! At any moment we can lean back on the heart of a perfect LOVER, sure of instant sympathy and perfect help in joy or sorrow. Think what it means to know that everything that comes to us, and everything that passes us by, must be the best possible arrangement for our growth in the beauty of holiness and in the beauty of happiness. A Lover who desires our perfecting, who cares with un-failing tenderness for our happiness, who has infinite power and infinite patience, and who can never make mistakes in His plans for us! Surely such never-failing romance must make the dullest day radiant.

But there is one side of this wonderful never-ending romance to be considered. No love-story is considered to be rounded out perfectly until the love is reciprocal. It is not enough for our joy to have the Love of God pouring itself out ceaselessly for our sake,

"Still in loving, still in loving,
Not in being loved, is joy."

If this is true in the lesser romances of earth, it is no less true in this great Romance. And, by the way, how much pain people might spare themselves if they grasped the fact that the one who loves is getting the best of life, rather than the one who is receiving love without giving any return.

Those who find Christianity a tedious, colorless round of duty, should wake up to the fact that it need not, and should not, be so. God gives it to us to glorify life as the sun glorifies everything. The love of God, drunk in eagerly hour after hour by a thirsty soul, and met by an answering love which becomes in time the very elixir of life, is our Lover-God's intention for each of us. Pain and sorrow are allowed, for great reasons—without them the soul seldom rises to a high level—but they are only temporary, while Joy is eternal.

But some who are struggling along in the path of duty may never have known the radiant joy of accepting and returning this wonderful Gift of Divine Love. How can the miracle of the marriage-feast be worked in them, changing the tasteless water of purification into the rich wine which grows better and better all through life? How can I tell you? God has His own mysterious way of keeping a glad tryst with each soul. One thing is certain, though; the road of consecration must be taken by all who would drink in this wonderful wine of joy. No half-hearted service can transfigure a whole life; but time, money, talents, and everything must be held always ready for the Great Lover to use as He pleases. Those who pour out their lives at the feet of Christ as devoted disciples, standing always prepared to obey His command, are drawn through the circle of "disciples" until He says: "I call you no longer servants, but I have called you friends."

Other romances can hardly fail to have some measure of disappointment, but those who cast all their hopes on this one are safe from disillusionment. As Hugh Black says:

"To be called 'friends' by our Master, to know Him as the Lover of our souls, to give Him entrance to our hearts, is to learn the meaning of living, and to experience the ecstasy of living."

The Divine Lover says: "Behold, I have graven thee upon the palms of my hands."

We answer confidently: "Set me as a seal upon Thine heart, as a seal upon Thine arm."

The journey through a great and terrible wilderness has no terrors for one who "cometh . . . leaning upon her Beloved."

"Hush, I pray you! What if this friend happens to be—God!"

DORA FARNCOMB.

Can any of our readers answer "Enquirer's" question? D. F.

Will any of the readers and writers of "The Farmer's Advocate" please give their thoughts in its columns as to what a "Saint" is? Not the dictionary meaning merely, but the expression of their own thoughts. Are there any "Saints" in the present day? What characterizes them, and is the name gained by attainment? It is a common expression, "I am not a Saint," or "we are not Saints." AN ENQUIRER.

With the Flowers.

Landscape Gardening for the Home.

Every homemaker should study landscape gardening. This does not mean that he should buy expensive books and get the whole art at his fingers' ends, but simply that he should, after getting hold of a few recognized rules of good taste, make such study of his house itself, of its situation and possibilities, as may enable him to make of the whole a picture unmarred by any incongruous or inharmonious element.

A house, to all appearance, is only a house. It may also be a home in the truest sense of the word, so far as affection and all that goes, but it does not look homelike, nor can it possibly give the fullest complement of pride and pleasure to the inmates unless given a setting, artistically arranged, of vines and trees, and flowers.

Artistic arrangement of house grounds must, of course, depend much upon circumstances; situation, outlook, etc., must give the cue to subsequent development. As a rule, however, the following suggestions hold good:

(1) Place a bank of trees, evergreen and hardwood, behind the house, to serve as a background, and leave an open space before it. The latter should not be broken by flowerbeds, etc., although a tree or two, a fine maple or beech, may be placed here or there and permitted to develop its full beauty of branch and contour. Trees and shrubbery may be irregularly grouped on each side of the lawn, and shrubbery should always be placed near the foundations of the house to soften the hard line of demarcation between ground and brickwork.

(2) Do not plant trees in straight lines, except (a) along fences, (b) at each side of a driveway, (c) when using them as a windbreak.

(3) Let vines run riot wherever anything stiff or hard in appearance needs softening, or where anything ugly needs to be covered up. Let them run up the verandas, over the brickwork; let them cover unsightly fences or sheds; nothing else can do as much in the cause of beauty and homelikeness.

(4) Use native trees. These stand the climate better than exotics, and look more at home. Besides, they are quite as beautiful, and afford quite as pleasing a variety; the gardener who cannot choose among native maple, beech, elm, etc., must be hard to suit. Besides, there is nothing to be gained by a very great variety. It is not necessary that the grounds be a museum, and better effects are often obtained by fewer varieties, well grouped.

(5) Do not cut up the lawn by paths

or driveways. Let these go at one side of, rather than through the lawn.

(6) Mass shrubbery, as a rule, against a background of trees or vines, letting it run into irregular "bays and promontories."

Make free use of native shrubs—dog-berry, cranberry, elderberry, etc., are all good—and do not forget to procure a few red-stemmed or red-berried varieties to afford color during the winter. A snow-covered garden, flanked by barberry, red-twigged dogberry, and brier-rose bushes, with their scarlet hips, has a beauty of its own but little short of the beauty of the summer garden. Our Canadian winter covers five months of the year, and most certainly should not be left out of account in planning home surroundings.

Pruning Shrubs.

To begin with, it may be said that ornamental shrubs require very little pruning. Dame Nature requires a good deal of direction wherever the utilities are concerned, as in orchards and small-fruit gardens, but when it comes to things that make for beauty alone, she may be pretty much trusted to herself. Notwithstanding, many people, acting under a vague idea that pruning is necessary every year, go on snipping off branches here and there, blindly oblivious of the fact that they are destroying every bit of character and grace the shrubbery should have.

It may be taken, as a rule, then, that unless in exceptional instances, the shrubbery should be tampered with as little as possible. These exceptional instances are: (1) When young shrubs are awkward and straggling. In this case head back a little for two or three years to induce a more compact growth. (2) When the branches grow too thick and close. Thin out a little. (3) When branches are dying or show weak, spindly growth. (4) When shrubs, otherwise healthy looking, make too insignificant bloom, possibly for want of the new growth upon which blossom-buds usually appear.

The time for pruning in any of these cases, depends chiefly upon the time of flowering. Those that bloom in the early spring, perfect their blossom-buds during the previous fall, and so should be pruned just after blooming. This will give the new shoots time to develop and make flower-buds before winter. Shrubs that bloom in summer and fall, on the contrary, make their flower-buds on the shoots of the season, and should therefore be pruned very early in spring, to force the growth of the new shoots. Dead or weak wood may be taken out in the winter, or, indeed, at any time.

Current Events.

The Newfoundland fisheries dispute will be submitted to the Hague Court of Arbitration.

Bulgaria has notified the powers that she thinks the time for recognizing her independence has arrived.

An English syndicate, which has secured control of the steel plant at the Canadian Sault, proposes to make it the greatest steel plant in the Dominion.

Great heaps of refuse, thrown out from the mines at St. Ives, Cornwall, prove to be chiefly composed of pitchblende containing radium, and hence of great value.

Ven. Archdeacon J. F. Sweeny, M. A., D. D., Rector of St. Philip's Church, Toronto, has been elected Bishop of Toronto, in succession to the late Archbishop Sweatman.

A deputation from New York State has asked the Dominion Government to make a canal connection between the St. Lawrence, near Montreal, and the Champlain Canal, which is now in process of enlargement.

A March Glee.

By John Burroughs.

I hear the wild geese honking
From out the misty night,—
A sound of moving armies
On-sweeping in their might;
The river ice is drifting
Beneath their northward flight.

I hear the bluebird plaintive
From out the morning sky,
Or see his wings a-twinkle
That with the azure vie;
No other bird more welcome,
No more prophetic cry.

I hear the sparrow's ditty
A-near my study door,—
A simple song of gladness
That winter days are o'er,
My heart is singing with him,
I love him more and more.

I hear the starling fluting
His liquid "o-ka-lee";
I hear the downy drumming
His vernal reveille;
And from out the maple orchard
The nuthatch calls to me.

Oh, Spring is surely coming,
Her couriers fill the air;
Each morn are new arrivals,
Each night her ways prepare;
I scent her fragrant garments,
Her foot is on the stair.

Homemade Lawn Roller.

The lawn should be rolled when it is soft, too soft to put the horses with the land roller on it, as their feet would sink and make holes; so we have made a cement roller, which we think will work all right. We took an old milk can and straightened out all the bruises in it. We found the center in the bottom and made a hole to receive the axle. The bottom of the can was higher in the center than at the sides, so we had to fill it up level with a board, as the roller should be rather crowning in the center. We took a piece of $\frac{1}{2}$ -inch round iron the proper length, and fixed it in the center at the top, and then mixed the gravel and cement in about the proportion of six to one. We pulled all the small stones to the center and pounded it in. The axle iron had a cross piece in the center to keep it from turning. The axle is left about three inches protruding at each end. It took one sack ($\frac{1}{2}$ barrel) of cement, and nearly two barrow-fuls of gravel. When it became thoroughly hard we took a hammer and a cold chisel and ripped the can down the seam, at the side, and the roller looks all right. We are making a frame for it of 3 x 3 rock elm, and will have two cross-pieces in front, with a pole, or tongue, so that two men can draw it, and all the money outlay will be 50 cents for the sack of cement. It will be a great saving on the lawn mower to have the lawn nice and smooth. The length of the roller is 2 feet $1\frac{1}{4}$ inches, and 1 foot 6 inches in diameter. D. L. Oxford Co., Ont.

The Lilt of a Laugh.

I've toiled with the men the world has blessed,

As I've toiled with the men who failed;
I've toiled with the men who strove with zest,

And I've toiled with the men who wailed.

And this is the tale my soul would tell
As it drifts o'er the harbor bar:

The sound of a sigh doesn't carry well,
But the lilt of a laugh rings far.

The men who were near the grumbler's side,

Oh, they heard not a word he said;
The sound of a song rang far and wide.

And they harkened to that instead,
Its tones were sweet as the tales they tell.

Of the rise of the Christmas star,
The sound of a sigh doesn't carry well,

But the lilt of a laugh rings far.

If you would be heard at all, my lad,
Keep a laugh in your heart and throat:

For those who are deaf to accents sad
Are alert to the cheerful note.

Keep hold of the cord of laughter's bell,
Keep aloof from the moans that mar;

The sound of a sigh doesn't carry well,
But the lilt of a laugh rings far.

—Strickland W. Gilman.

The Beaver Circle.

On Shooting Birds.

A long, long time ago, a boy called H. H. B., sent us a story about a cow, which was very good indeed, but which was written on both sides of the paper and so cannot be published. Try again, H. H. B. I was very glad to know that you were so fond of animals, but, dear me, what did you sell that cow for? I think I should have felt more like "dressing her in the finest silk, and feeding her on the choicest hay." Poor bossie!—after suffering so much! . . . But I suppose you are an out-and-out practical farmer, not a hermit like old Puck.

And, now, I want to tell you something. Last fall I got out of my den one day, and a few of us drove to one of the prettiest little lakes imaginable, with woods at one side, and bushes and reeds and the seed-heads of wild flowers all about. The day was perfect, but there was one thing that spoiled the peacefulness of the scene. Over on the shore a big man, who should have known better, stood with a gun, mercilessly hanging away at every bit of bird-life that dared show itself within reach of his pitiless shot. Down the little birds came—precious little songsters on their way to the South, little missionaries that had spent all of the summer eating up insects whose chief work seems to be destroying our crops and orchards, changed in one moment, from beautiful, useful creatures, into bleeding, hideous masses of mingled blood and feathers. . . . A crane sailed over the man's head, making straight on, like a beautiful frigate of the air, to some lone, distant pond. That would have been a rare prize, and the "sportsman" (save the mark!) tried again and again to secure it. To our great joy he missed his purpose every time, the range, probably, being too great.

There is really no great sport, and surely no great bravery, in shooting birds—little, timid things that cannot even fight back again for their lives. Surely they are beautiful enough and useful enough to be let live. Think of the loneliness of a land, in which no bird ever sang, in which the flit of a bright wing through the trees could never be seen. And then think of the usefulness of the little creatures. In some of the islands of Japan there are no birds at all, all having been taken by French traders to trim the hats of foolish women, and everywhere in those islands there is said to be the hum of millions of insects, insects that are feeding on crops and fruits to the great damage of both. The Japanese, however, are a very progressive people, and no doubt they will before long import birds, next time protecting them by law.

Then, think of the cruelty of the practice. Not long ago I heard a lecture on birds, by a man who knows very much about them, and who loves them so much that he goes out sometimes at 4 o'clock in the morning in summer, to observe their habits. Then, if you happened to live near him, and were up early enough, you would see him dashing along on his wheel, a note-book sticking up out of his pocket, and a pair of field-glasses swung over his shoulder, and, possibly a camera, but never a gun of any kind. In his lecture he said that a little bird's life is a life of fear. It is always watching out for enemies, cats, voracious birds of prey, snakes, men and boys with guns. Even while eating, it cannot rest in peace, but has to stop every few seconds to turn its little head this way and that, to see if anything cruel is approaching. Add to this its long, long flights of thousands of miles, spring and fall, when, hurrying through the upper air by night, it is exposed to all the dangers of falling into the ocean or lake through fatigue, or of dashing against the glass of light-house towers, or against the networks of wires which men have put up for various purposes. Surely a life menaced by so many dangers should not have to bear the added one of facing the cruel shot from guns fired by thoughtless boys.

If boys must shoot in a land like ours where there is no dangerous game, their common sense should tell them that it should be at targets, or at little balloons, or kites sent up for the purpose. . . . But there is really no excuse for shooting at all, just for the sake of outdoor sport. There is another kind of sport which, while causing neither suffering nor loss of life, is much more interesting, and really requires more skill than blazing away with a gun loaded with bird-shot. Have you ever heard of it—hunting with a camera? Have you ever heard of Dugmore, Baynes and others who go out into the woods, secreting themselves among trees, hiding, even in canvas "tree-trunks," all covered with boughs, until a good "shot" can be taken with their most harmless of "shooters"? And then the interesting time afterwards while developing the plates and printing the pictures is to be counted on. You have only to try it to find out how delightful it is.

A great many people seem to be terrified at the cost of photography, but a camera costs no more than a gun, ranging in price from five or six dollar Brownies up—and when you have once learned to develop and print yourself, the cost is no more than for powder and shot. Many boys and girls, indeed, manage even to make a little pocket money by taking pictures of friends and friends' houses, and charging a small margin for their work.

Now, girls and boys, I hope you will forgive me for taking up so much of your space to-day. I did want to talk to you about this, you see, and to tell

you how glad I shall be if any of you who have done any work in photography will tell us about it.

Yours sincerely,
PUCK,
York Co.

will agree with me when I say that evening is the nicest part of the day. We find the poets write more about it than about the day proper.

JAMES RAY,
York Co.

The Two Kinds of Sport.

"Tis a beautiful morning," a sportsman said;
"The world looks so happy let's each take a gun,
Go out and kill something for pastime and fun,
And proudest be him who counts the most dead."

They blotted out lives that were happy and good;
Blinded eyes, and broke wings that delighted to soar,
They killed for mere pleasure, and crippled and tore,
Regardless of aught but the hunger for blood.

"Tis a beautiful morning," a sportsman cried,
Who carried a kodak instead of a gun;
"The world looks as happy, so golden the sun,
I'll slip to the woods where the wild things hide."

The deer that he "shot" never dreamed of his aim,
And the bird that he caught went on with her song,
Peace followed his footsteps, not slaughter and wrong,
Yet rich were his "trophies" and varied his "game."

The Letter Box.

Dear Puck and Little Beavers,—I thought I would write you a letter on "Evening." I hope this letter will escape the waste-box.

"EVENING."
"When the shades of evening gather o'er the hill,
And the little birds and other things are still,"
Is the time of all times to take a walk
Up the grassy hill-side, or along the brook.

We may spend our evenings in many different ways, but I think the nicest way is to go for a ramble through the woods, among the flowers, up the hills, and in the many other delightful places around a country home. As you are walking along, the moon casts fantastic shapes across your path, either making you laugh or making you shudder. You may sit by the fireside and muse or read a book, or converse on some interesting subject, and in this way pass your evening very profitably.

I think my friends of the Beaver Circle

Dear Puck,—I am a farmer's daughter, and of English descent. My grandfather came out in the year 1850. At that time the country was nearly all covered with woods and large forests. He landed at Quebec, and then came to Northport. Every farm then was covered with great forests or woods. Everyone had a maple grove, and in the spring of the year they tapped the trees and had maple syrup and sugar enough to last them until the next spring. The women used to knit and make cloth and spin. They knit stockings and mittens for sale, and for their own use.

The ways have changed now, and the women buy their cloth and stockings and mittens. There are hardly any maple groves now, and the people have to buy maple syrup and sugar, and it is not as pure as that of olden times. The woods are nearly all cut down, and most of the farmers burn coal around here. I will now close, as this is my first letter, and I must not take up too much of your valuable space. Yours truly,
LENA MORRIS (age 13 years),
Prince Edward Co., Ont.

The Junior Beavers.

Dear Puck,—I have never written to this Circle before, but I hope you will find room to print my letter. I saw in your number for January 14, 1909, an article about making skees. I made a pair last winter out of cedar, the same as Fred. Robinson, but did not bend them up as he did. I think they are great sport.

My home is just south of a woods, and it makes a great shelter in winter. There are a lot of black and gray squirrels. My brother put up boxes beside the house and the squirrels come and eat the grain out of them.

Our bush is nearly all maples, and we make a lot of maple syrup in the spring, tapping about three hundred and fifty trees. We have a boiling house, and have some fine old "sugar-offs."

I go about three-quarters of a mile to school. In the fall we play football. I wish Bruce Gummer to tell me how to play "cock-robin."

ROBERT ROGERS (age 9 years),
Durham Co., Ont.

Dear Puck,—My papa has taken "The Farmer's Advocate" for several years, but this is my first letter. I am nine years old, and I have gone to school three years. I have to walk half a mile to school. I am in the Third book. I have a little brother five months old; his name is Horace King



This boy finds sport in shooting gray squirrels, and likes to exhibit their lifeless carcasses as trophies of his skill.

This boy, on the contrary, has made friends with the squirrels, so that they come and eat out of his hand.

Hunting with a camera is as fascinating, and requires as much skill as the rifle.
(From Suburban Life.)

Sadler. We had a heavy fall of snow yesterday. It snowed fifteen inches in three hours. To-day the wind is blowing hard and the roads are drifted full. My grandma gave me a watch this Christmas, and it keeps good time. I will not make this letter very long, and I will write again.

HAROLD W. SADLER (age 9).
Vic. Co., N. B.

The Ingle Nook.

"Well-dressed is when you look nice; less well-dressed is when you look stunning; least well-dressed is when your clothes look better than you do." This remark, from a bright writer in that very bright magazine, "Life," is well worth considering whenever new clothes are to be bought, for every word of it is absolutely true. The girl who goes dashing down street in the very latest extreme of fashion, and noticeable half a block off, because of it, hat on the back of her head, hair built into a monument, and—just at present—a skirt so tight that she can scarcely walk in it, is not well-dressed. To be so a woman must look "nice," not flashy. Her clothes, though plain, must fit to perfection and be of good material; gloves, shoes, and collar, must be immaculate; and the whole woman endowed with that air of being well-groomed, which is so hard to describe, but so easy to perceive.

For all business occasions, shopping, etc., the only dress that is considered really in good taste, is a plain suit, coat and skirt alike, with separate shirtwaist, or a long, plain coat, worn over a plain skirt and waist, or shirtwaist suit. A small hat, with a veil to keep in the stray locks of hair that blow about so, especially when driving, a neat collar and bow or string tie, or an unobtrusive ruching and brooch, complete the toilet. No other jewelry should be worn except the watchguard, and perhaps a small shirtwaist pin and cuff-links. So clad, a woman looks as though she has "some other clothes at home" for other and more suitable occasions, and not as though she is carrying everything she is worth on her back.

This costume, with the substitution of a somewhat less businesslike shirtwaist, is quite suitable for church, and even for calling, but, of course, for teas, garden parties, etc., a more dressy costume should be worn.

For the plain tailored suits, broadcloth, chevot, serge, prunella cloth, panama, and tweed, for spring wear, are always safe, and for warmer weather, pongee or rajah silk, linen, fine pique, and chambray. For the dressy gowns, pongee, foulard, or rajah silk, fine muslins and lawns, zephyr gingham, and mulls, are good for summer wear. In heavier materials the new cloths, "satin cloth," and "satin princesse," are highly recommended as unspottable and uncrushable, but these qualities, of course, remain to be tested.

By the way, a rather amusing metamorphosis in fashion is threatened. Instead of the clinging Directoire, which, after all, never gained much favor, except on the stage, and among the ultra-fashionable, next fall, or, possibly, even earlier, will see, so we are told, the advent of the "basket" gown, with a rather short skirt and overskirt, made into puffs or "paniers" over the hips. Why not combine use and "beauty," and convert the puffs into actual paniers by closing them somehow along the lower edge? That would be a fine scheme when going to market, or on a shopping tour.

Seriously, however, I do not think the puffs are much to be feared among plain people. Freaks have been tried, and with little enough success, before.

D. D.

Keeping Hens and Gardening for Women.

Dear Dame Durden,—As I have never written to the Ingle Nook before, I would like to send a few lines. I always enjoy the Ingle Nook Corner very much. Everything in connection with farm life is very interesting to me. Just now it is the hens. I think it is so interesting to take care of a flock of them; you manage them with your housework, and hardly notice the extra work. Just try it and see how you will enjoy the work. We get fresh eggs all the year round.

We send them to Ottawa, and are receiving 85 cents per dozen (January 28). I think it is fine for a woman to have her own pocket money. I will say for the "biddies," the oftener you go to see them, and the better you use them, the more eggs you get.

Another part of farm life I do enjoy is gardening. Some of you Nookers who have never tried it, start and raise some small fruits, currants, gooseberries, raspberries, and grapes; a few bushes of each will give you enough for a family.

And then there is the strawberry patch; I think there is nothing like strawberries. We always grow enough for ourselves and have some for sale every summer. I hear some of you say you have no time to trouble with them. I would just say a great deal of work is done that is of no benefit to yourself or family. If we would supply our family with more nice, fresh fruits and vegetables, and do less fancy sewing, and make less pastry, and give to the children eggs, milk and butter, we would see more rosy cheeks, and you will see such a change in your own health, and it brings you more in touch with God when you know that everything comes from His bountiful hand.

You may say I have lots of time. I have three boys, from seven to twelve, and a husband. I do all my own work, sewing included, but you know a change of work is restful. My health is so much better since I started to work in the garden. Perhaps my letter is rather long already. Let us hear from some more of the farmers' wives. I would like to get some hints on the culture of the palm.

A SPRIG OF HEATHER.

Renfrew Co., Ont.

According to Prof. Bailey, an authority, palms need plenty of water, but should be in well-drained pots. Provide with soil made up of rotted sod, mixed with a little well-rotted stable manure, and enough sand to make friable, and repot in spring, making only moderate shifts, that is to pots from one to two inches larger. Keep in a partially-shaded situation. The temperature in winter may vary from 56 or 60 degrees at night to ten or twelve degrees higher during the day.

Chop Suey.

Can you give me a recipe for chop suey?
FARMER'S WIFE.

One-half a chicken, scraped from the bones and cut into bits; one large onion, sliced; a stalk of celery, cut into bits; six Chinese potatoes, washed and sliced; a bowl of boiled rice; a handful of dried mushrooms, soaked until soft; a small dessert dish of Chinese sauce.

Fry the chicken in fat until done, then add the sliced onions; cook for three minutes; put in the mushrooms drained, and enough Chinese sauce to brown the ingredients. Add a little water and stew for a few minutes. Put in the celery, then the potatoes, and lastly a little floured water. Cook until the gravy is a little thick, then serve with rice. If you are not near a Chinese store from which the Chinese ingredients can be obtained, you will have to use the ordinary potatoes; and a little Worcester or tomato sauce, but, of course, your dish will not be the real chop suey.

Summer Garments.

Dear Dame Durden,—I have for some time been a reader of your "Corner," and have received help. We have been advised, through the "chats" from one and another, that we should do our summer sewing in the winter. Would you, or someone else, tell us country lassies what will be worn during the summer? Will cream suits, made of serge or linen, be in style, and is it correct for one to wear a white coat and have a dark skirt on? Thanking you in advance.

ONE OF THE LASSIES.

Grey Co., Ont.

Cream serge and linen suits will again be worn. The linen will be very popular; it is quite serviceable, but crushes easily, and for that reason many of the girls last summer had suits made of plain blue or very light pink chambray, with white collars and cuffs, while others chose fine "brown" holland. For dainty shirtwaist suits and dresses, the pretty zephyr gingham which came in last year will be very much in favor. . . . A long, white serge or linen coat may be worn with a dark skirt, if the hat

matches the coat, but, of course, a skirt of the same material looks very much better.

The Possibilities of Cheese.

Early last fall a kind friend gave me an eight-pound cheese. That much sounds nice, and does not suggest any serious complications—but when you consider that our family numbers two, and we are not particularly fond of cheese, the case is more serious. In the first place, we never eat "green cheese," so I buttered my cheese carefully with unsalted butter and set it where it was cool and dry to ripen for nearly five months. Even then it was not quite as "ripe" as we like it, but I thought we had better begin if we were ever to see the end. So I started in very bravely with just "cheese," but by the time that had appeared two or three times, I knew I was "up against" a problem. Then I set to work on cook books and magazines (by no means forgetting "F. A."), to see what could be done with cheese.

My first discovery was that grated cheese is a decided addition to a vegetable salad. Of course, one must not overdo the thing, and put in large quantities of cheese—we liked a heaping tablespoon of cheese to each cup and a half of vegetables. (I say "vegetables," because my salads are usually a medley of odds and ends—potatoes, turnips, beets, carrots, beans, a slice of raw onion, etc.—all go into the salads.)

"Macaroni with cheese," was the next attempt. Boil the macaroni in salted water for 45 minutes, being very sure to have plenty of water, which never stops boiling; drain in a colander; then put a layer of the macaroni in a pudding dish. Sprinkle lightly with the grated cheese, a few pieces of butter and a little salt and pepper, then put on more macaroni, cheese, and seasoning, until the dish is full. Finish with macaroni and butter, but no cheese. Now add about a cup of milk to each quart of macaroni, etc., (just enough to moisten slightly), brown for 20 or 30 minutes and serve in the pudding dish.

"Macaroni, tomatoes and cheese," was the next experiment. Cook the macaroni as given above and arrange in layers with tomato (the pulp only, if cooked), cheese, butter, salt and pepper. Sometimes I added a rolled cracker or a few bread crumbs, and a finely-chopped onion. Have macaroni or crumbs for the top layer. Then moisten with the juice of the tomato and cook from 20 to 30 minutes.

"Scalloped tomatoes" came next. For this use only the pulp of the tomato, arranging it in alternate layers with bread crumbs, a sprinkle of cheese, butter, salt and pepper. Once in a while a chopped onion found its way into this dish, also.

"Scalloped potatoes" was the next disguise for the grated cheese. Since everyone knows how to cook potatoes in this fashion, I need not give further details than to say "use a slightly rounded tablespoon of grated cheese to a pint of potatoes. I found, that to prevent the milk from curdling in this dish, it is well to use a pinch of soda, dissolved thoroughly in the milk. In fact, in any dish where there is danger of curdling milk by adding salt, a pinch of soda does no harm and often averts disaster.

"Cheese croquettes" were not so well received, but some might like them. To make these add a little grated cheese to mashed potatoes, moisten with egg or milk, season with pepper and salt, and form into little cakes, which are fried in butter or sweet dripping.

"Scalloped cheese" was quite a favorite, so, of course, was used several times. Take about three slices of bread (plain or toasted), and two heaping tablespoons of grated cheese. Butter the bread and arrange it in alternate layers with the cheese, sprinkling each layer with salt and pepper, using cheese as top layer. Beat 3 or 4 eggs, add 3 cups milk (a pinch of soda will help, you know), pour over the bread and cheese and bake in a moderate oven about 40 minutes. Boiled rice may be used instead of bread or bread crumbs or cracker crumbs will answer as well as whole slices.

"Welsh Rarebits" are made in several ways. The one we liked best was made as follows: Heat a cup of milk in a granite dish, add three-fourths of a cup of grated cheese and stir until the cheese melts, then add a beaten egg, a pinch of

salt, a tiny bit of cayenne, and a cup of bread crumbs. Stir a minute or two until the mixture is smooth and creamy and pour over five or six hot crackers or toasted slices of bread. Serve at once.

"Cheese with mayonnaise" appeared in sandwiches once or twice. Rub the yolk of a hard-boiled egg with a tablespoon of melted butter (salad oil, if you prefer it). When quite smooth add $\frac{1}{2}$ lb. grated cheese, $\frac{1}{2}$ teaspoon each of salt, pepper and mustard. Rub all well together and add a little vinegar or lemon juice (just enough to taste it). Spread on buttered bread. "Cheese sandwiches" are quite appetizing if a tiny pinch of cayenne is used in grated cheese. The cayenne stimulates the digestive organs sufficiently to digest the cheese. Sometimes one has little odds and ends of fish, chicken or other meat, which can be used up by running through the meat chopper (there is no easier way to grate cheese), and then used in sandwiches. Cheese may be added to any of these, either to help out the quantity or to give another flavor to the sandwich. A bit of chopped onion is also an addition, especially to a strong fish, like sardines or salmon.

Speaking of fish reminds me that we tried cheese in two of our favorite "codfish dishes" and we liked both of them. Here they are:

"Codfish a la mode."—Pick to bits and freshen one cup of codfish. Cook until tender in one pint of milk, or cream. (If milk is used, add a generous piece of butter.) Add two well-beaten eggs, a little salt and pepper, and two cups of mashed potatoes. To this I added two tablespoons grated cheese and baked 20 or 30 minutes. The appearance of this dish may be improved by sprinkling buttered crumbs over the top when nearly cooked and allow them to brown nicely.

"Creamed Codfish."—Pick up and freshen $\frac{1}{4}$ cups of fish, heat $\frac{1}{4}$ cups milk, add the fish and cook ten minutes in a double boiler. Add a tablespoon butter, a tablespoon flour moistened in a little milk, one beaten egg, a tablespoon grated cheese, and a generous dash of pepper. It is well to remove the dish from over the heat before adding the egg and cheese, as there is less chance of curdling, and yet the milk will be hot enough to cook them sufficiently.

I am quite sure that cheese would be a delightful addition to a plain omelet, but my omelets, plain and otherwise, were always such "flat failures" that I have long since given up trying to make them. Will anything short of a "witch's incantation" keep an omelet from falling long enough to let a body eat it?

I have given these recipes just to show a few of the possibilities of a piece of cheese. It is universally acknowledged to be one of the most nourishing of foods, in a comparatively cheap form, and yet one rarely sees it served as anything but plain sliced cheese. In fact, I lived "in other people's houses" for more than ten years, in several different parts of the Province, and never but once did I meet cheese in anything but "plain clothes." That once was macaroni and cheese, much as I have given it to you. Now, I am sure I have not exhausted the possibilities of cheese, but I finished my eight pounds without wasting any of it.

JACK'S WIFE.

Washing as an Art.

Washing is an art and needs to be learned as well as anything else. Everybody can wash after a fashion, but not everybody can so turn out handkerchiefs, silk and lace blouses and ties and other washable belongings that a professional laundress would not scorn to own them as her work. It is emphatically an accomplishment worth learning, if only for the sake of reducing one's laundry bill. Dissolved soap is a necessity and is made by finely shredding a quarter of a pound of yellow soap into one quart of water and boiling it till dissolved. When washing flannel and woollen goods never rub or twist them. Squeeze them about in a tepid lather to which (for white flannels) a little ammonia is added. Wash thoroughly on both sides, rinse carefully, shake and dry in the air, not in the sun. White silk blouses, ties and handkerchiefs are all washed in the same way. First steep them in cold water with a little borax added, wash in a lather of warm water and dissolved soap, rinse well, pass through slightly blued water, fold in a clean cloth, pass through the

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wringer and iron on the wrong side when nearly dry with a cool iron. A little methylated spirits added to the last rinsing water gives a desirable gloss. A dessertspoonful to a pint of water is ample. For colored silk do not steep it in borax water or pass it through blue water. If you fear the color will run, steep it in salt and water for a short time, but be careful to rinse all the salt out before washing.—Winnipeg Farmer's Advocate.

Some Meat Recipes.

With the advent of winter, the season when meat is especially relished, and especially necessary to maintain the heat of the body, a few hints in regard to meat and its preparation for food may not be out of place. Examine a piece of meat and you will find it made up of stringy fibres, really tubes, whose walls are made of an albuminous substance, while the connective tissue joining them is composed of a gelatinous substance, "collagen," with a certain amount of fat, especially abundant in "fat" beef or mutton, pork, duck, and goose. Meat containing a large percentage of fat (with the curious exception of bacon), is less digestible than that which is lean; "young" meat is less nutritious than that which is older.

Meat should never be used too soon after an animal is killed. When "hung" it first stiffens, then develops an acid which softens it as well as improves its flavor. It should never be cooked until this stage is reached. If, however, it still remains tough, some improvement may be made by soaking it in vinegar and water for a while.

The effect of cooking upon meat is (1) to loosen the fibres, (2) to remove some of the particles of fat held between the fibres, (3) to diminish the amount of water, even when meat is boiled. This last fact shows that cooked meat is more nutritious than raw, although less easy to digest. Lightly cooked meats are, indeed, always more easy of digestion than well-cooked meats, hence rare beef is better so far as digestion is concerned, while perfectly raw beef, scraped down and seasoned, then made into sandwiches, is often used in the hospitals for patients with weak stomachs. Beef is, however, among the most easily digested of meats—indeed, of foods. Veal, fat mutton, and pork—all of which, by the way, seem to need thorough cooking in order to develop the proper flavor—are much harder of digestion. The fat of bacon, which is granular of form, is, when well cooked, exceedingly easy of digestion, as well as very nourishing. Lean poultry are also good, but fat poultry can scarcely be recommended for the dyspeptic. Heart, owing to its dense structure, is not very digestible; neither is liver, which, however, is rendered better by mincing. Sweetbread and tripe are very digestible, and should be seen more frequently on our tables than they are.

Before passing on to the preparation of meats, it may be added (1) that meats (especially good beef) are very thoroughly absorbed into the system; (2) they help exercise a stimulating effect; (3) they help to build up the flesh and muscle of the body; (4) they produce warmth and energy, and the capacity for work.

It may be said also that the cheaper cuts of meat are quite as nutritious as the dearer, although not so tender or of so good a flavor. By care in cooking, however, they may be made very appetizing.

Beef teas and beef extracts are, however, of very little value as food. They are made chiefly of blood, which contains a very small proportion of nutritive material, and are chiefly of use in meat because of certain extractives which give flavor.

PREPARATION OF MEAT.

Roasts.—Sear the outside very quickly to form a coating, which will retain the juices, then cook more slowly. The searing may be done either on a hot greased pan or pot on top of the stove, or else by putting the roast into a very hot oven and lowering the temperature when the searing has been accomplished.

Boils.—Plunge into boiling water to harden the outside, then let simmer slowly for from three to several hours, depending on size of the boil.

Steaks.—Sear quickly all over the outside, then cook very quickly, but not very thoroughly. Steak cooked just right should always be a little pink at the heart. Round steak, which is more

tough than sirloin or porterhouse, may be seared, then covered with water and let simmer two or three hours. Cooked thus, and the gravy finally thickened with a little browned flour, it will be found very tender and appetizing.

Stews.—Cut meat into small bits, cover with cold water and simmer from two to six hours. Vegetables and thickening should be added to taste.

[Note.—Where the word "simmer" is used, simmer is meant—not boil. Boiling is absolute ruination to stews or boiled meats.]

Hamburg Steak.—Chop fine 1 1/2 lbs. raw fresh meat (the "poorer" cuts will do), add 2 cups bread soaked in milk, 1 small minced onion, salt and pepper to taste, and 2 eggs. Make into cakes and fry, or cover with a sauce made of canned tomatoes and bake.

Beef Hash.—Mince raw or cooked meat as above. Mix with twice the quantity of cold mashed potatoes. Put a tablespoon of butter in a frying pan, turn in the hash, which has been seasoned well with pepper, salt and minced onion, moisten well with water or beef gravy, and steam or heat through thoroughly, stirring often enough to keep it from sticking, and adding more water, if necessary. It should be neither watery nor dry.

Shepherd's Pie.—Chop fine raw or cooked beef, cover with water, season, adding a few cloves and a bit of butter, and simmer until tender; then thicken slightly with flour, cover with potatoes, mashed, seasoned, and beaten with a little milk, and bake. Brush over with beaten egg to make it get brown. This is a delicious dish, which may be varied by adding tomato catsup, curry, or Worcester sauce to the meat.

Beef Liver Stew.—Cut 1 lb. liver into 2-inch cubes, put them in a stewpan and add enough water to keep the liver from burning. Cover tightly and stew gently—a mere simmer—for 1 1/2 hours, adding more water, if necessary. Finally season with butter, salt and pepper, thicken a little with flour and serve very hot. The liver becomes very tender with the slow stewing.

Beef Sausage Pats.—Chop 1 1/2 lbs. raw beef and 1/2 lb. beef suet very fine. Add 1/2 pint cold water, salt, cayenne and sage to flavor, and mix well. Make into pats, dredge with flour and fry.

Heart.—Fill the heart with well-seasoned stuffing, fasten the top well and stand the heart in a small kettle. Fill half full of water and simmer gently for 1 1/2 hours, covering tightly. Place in a baking pan 1/2 onion, 1 small carrot, 1 sprig parsley, all chopped fine. Lift the heart from the kettle, dredge with flour, salt and pepper, lay it in the baking pan, adding the water in which it was boiled, lay on top of the meat a thin slice of suet, and bake 1 hour, basting often. Finally thicken the gravy and serve with the meat.

The Infants' Food Question.

Do you know it?—there are just two dozen more letters on my desk about feeding those blessed babies! We thank the writers heartily, but, as I said before, I think it better to hold over these letters for a time, when, if pronounced all right by a specialist, some of them, at least, will be published. I hope no one will mind not seeing her letter in print. We cannot take up too much space, even for a good thing, you know, and anyway I was afraid to hand out any more methods to be tried on that poor baby. You see, I reasoned it all out this way: That babies aren't so different from grown folk after all, and that, perhaps, what might be good for one baby, might be very bad for another. I do think that any mother with a weak, sickly child, should see her doctor about it. It stands to reason, that only personal examination and inquiry into all the circumstances, can give a right diagnosis of the trouble, and babies are too precious to be experimented on.

The food formulas already published, are, I believe, just preparations intended to be wholesome for normal babies, without any organic trouble. If there is the least suspicion of any symptoms which you do not understand, I beg of you, mothers, to get professional advice. I do not know much about babies, but I can guess that pains in a little one's "tummy" are not very easy to bear, and that they may but be the sign of serious trouble. Having brought a baby into

Remnants Made Beautiful With DIAMOND DYES

Haven't you sometimes had a few yards left over after making a dress? Haven't you sometimes seen an unusual bargain in a silk or other remnant that you could use if it was a color you liked?

That is a time to remember Diamond Dyes.

You can transform a remnant to almost any beautiful shade you may desire.

It is the same way with the remnants of ribbons, or the old faded or spotted ribbons. Diamond Dyes will make them new again.

There is hardly a thing that you have used for clothes that can not be made bright and new again with wonderful Diamond Dyes.



"I just can't thank you enough for Diamond Dyes. I bought a remnant for \$1.50—it was worth far more, but was an ugly, unsalable color. I spent 10 cents more on dye, and made it into a beautiful piece of dress goods that all my friends have been admiring." Mrs. S. A. Ghant, St. Thomas, Ont.

Why don't you, too, begin to save money by using DIAMOND DYES. There are 15 ways—read them:

Fifteen Ways to Use Diamond Dyes:

1. For changing the color of silk stuff to match any pattern.
2. For making new dresses out of different pieces of old goods by dyeing them all the same color.
3. For making over old curtains or tapestries that have become stained or dirty.
4. For renewing the upholstery of chairs and furniture.
5. For staining wickerwork in solid colors or patterns.
6. For making an old soiled cloak look like new by dyeing it a rich new color.
7. To assist in making crazy quilts, or any other fancywork, by dyeing a number of small pieces in different bright colors.
8. For making children's beautiful colored dresses, bows, ties, etc., out of ordinary white cotton by dyeing it.
9. For making over woollen garments that have become stained or soiled.
10. To change the color of a hat or part of its trimmings, or to use in making new hats.
11. For dyeing strips of carpet or matting.
12. For coloring suede kid shoes to match any dress or gown.
13. For dyeing plumes, aigrettes and feather bows.
14. For dyeing silk, or even kid gloves.
15. For dyeing dresses that are lengthened, and show a different shade in the hem.

Important Facts About Goods to be Dyed:

Diamond Dyes are the standard of the world, and always give perfect results. You must be sure that you get the real Diamond Dyes, and the kind of Diamond Dyes adapted to the article you intend to dye.

Beware of imitations of Diamond Dyes. Imitators who make only one kind of dye claim that their imitations will color wool, silk or cotton ("all fabrics") equally well. This claim is false, because no dye that will give the finest results on wool, silk or other animal fibres can be used as successfully for dyeing cotton, linen or other vegetable fibres. For this reason we make two kinds of Diamond Dyes, namely: Diamond Dyes for Wool, and Diamond Dyes for Cotton.

Diamond Dyes for Wool cannot be used for coloring cotton, linen or mixed goods, but are especially adapted for wool, silk, or other animal fibres, which take up the dye quickly.

Diamond Dyes for Cotton are especially adapted for cotton, linen, or other vegetable fibres, which take up the dye slowly.

"Mixed Goods," also known as "Union Goods," are made chiefly of either cotton, linen, or other vegetable fibres. For this reason our Diamond Dyes for Cotton are the best dyes made for these goods.

Diamond Dye Annual — Free Send us your name and address (be sure to mention your dealer's name, and tell us whether he sells Diamond Dyes), and we will send you a copy of the New Diamond Dye Annual, a copy of the Direction Book, and samples of dyed cloth, all FREE.

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—except the baby. "Baby's Own" is the nicest, purest and safest soap you can use. Best for baby—best for you.

ALBERT SOAPS, LTD.,
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OWN SOAP.

Feeds the Hair!

Have you ever thought why your hair is falling out? It is because you are starving your hair. If this starvation continues, your hair will continue to fall.

HISCOTT Hair Tonic

is assuredly the ideal remedy for poor hair and sick scalps. You will realize this if you use it. \$1.00 express paid.

Hair Rejuvenator restores gray and faded hair to former color in ten days. Not greasy or sticky, contains nothing harmful, clear as water. For hair less than half gray, \$1.00.

Superfluous Hair, Moles, etc., permanently destroyed by our method of Electrolysis. Satisfaction assured. Get Booklet "F."

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Consumption Book

200 PAGE MEDICAL BOOK ON CONSUMPTION

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 Consumption Remedy Co., 1299 Rose Street, Kalamazoo, Mich.,** and they will send you from their Canadian Depot the book 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.

A Woman's Sympathy

Are you discouraged? Is your doctor's bill a heavy financial load? Is your pain a heavy physical burden? I know what these mean to delicate women—I have been discouraged, too; but learned how to cure myself. I want to relieve your burdens. Why not end the pain and stop the doctor's bill? I can do this for you and will if you will assist me.

All you need do is to write for a free box of the remedy which has been placed in my hands to be given away. Perhaps this one box will cure you—it has done so for others. If so, I shall be happy and you will be cured for 2c (the cost of a postage stamp). Your letters held confidentially. Write to-day for my free treatment, **MRS. F. E. CURRIE, Windsor, Ont.**

the world, parents have a right to see that it gets a healthy and comfortable start in life.

And, now, what about switching off on to some other subject in regard to children—I am sure there are many important enough to bear a good deal of talk. What about training the little tots? Have you any ideas on how to make them obedient without crushing their personality and resolving them into little automatons, obedient only through fear? What steps do you take to lead them to have pretty manners? What steps to help the development of their intellect and affections? Many other queries will suggest themselves.

Would you not like to talk—or ask questions—on some of them? It seems to me you mothers might help one another wonderfully by such an interchange of ideas and experiences.

Orange Marmalade.

Slice two dozen unpeeled oranges and remove the seeds. Mix with them two lemons, also sliced thin. Measure the juice, and add enough water to make three quarts liquid. Put all into a crock or granite kettle and leave in a cool place all night. Next day bring slowly to the boiling point, then simmer until the peel is very tender. Now stir in a pound of sugar for every pint of juice, and boil until the skin looks clear. Remove from the fire, and when cool, turn into jelly glasses, covering each with a little melted paraffine. If preferred, the lemons may be omitted, and part bitter, part sweet oranges used; or all the oranges may be bitter. February and March are the best months in which to make orange marmalade.

Removing Oil of Smoke—Raisin Puffs.

Dear Dame Durden,—I would be very much pleased if you would kindly let me know, through your valuable paper, what would remove the oil of smoke from muslin and linen goods.

A recipe which might be useful.—Raisin Puffs: Cream $\frac{1}{2}$ cup butter and $\frac{1}{2}$ cup sugar together, add 2 well-beaten eggs, 1 cup milk, 3 teaspoons baking powder, sifted in two cups flour, and one cup raisins, chopped fine and dredged. Steam in small cups. **INQUISITIVE.**
Leeds Co., Ont.

I have just telephoned the best druggist in the city in regard to this question. He says that thorough washing, with as strong a soap as you can get, should remove the oil of smoke, if pure. If adulterated, two or three washings may be necessary.

Cooking "Left-overs."

The best housekeepers, it goes without saying, have the fewest left-overs. To know just how much to cook to have plenty, and little left over, requires unusually good judgment, and a little extra time in preparation. The French, who, it is said, can give lessons to all the world on economy, do not hold the time spent in counting the number of potatoes, etc., per head, wasted. However, plan as one may, there are sure to be times when the family seem to eat less than usual, or when some member of it fails to come home at meal-time, and when, in consequence, there are left-overs. The trick then is to prepare from these dishes so tempting and appetizing, that at the next meal the family will never dream that they are just eating up scraps. The following are just a few hints:

Cold Vegetables.—Use in soup or salad. The soup may be made with beef or chicken stock with the water in which almost any vegetable, beans, peas, potatoes, etc., have been boiled; or with milk slightly thickened with cornstarch, with the vegetables, rubbed through a sieve or potato ricer, added. Milk soups are too heavy for dinner, but are just the thing for supper during cold weather. Season them nicely with salt, butter, and paprika, and serve with crackers, or bits of fried bread. Paprika, by the way, is said to be more wholesome than black pepper, and looks ever so much prettier.

For the salads, simply clear the vegetables of grease (if greasy), by putting them in a colander and pouring hot water over them, then chill and mix with salad dressing before serving. Bits of raw celery may be added, if liked.

Cold potatoes, boiled beans, etc., may also be mashed, mixed with a little egg and cream, seasoned, made into small, flat cakes, or croquettes, and fried.

Bread-crust and Dry Bread.—Old bread may be made into various bread puddings. Make an ordinary bread pudding and disguise: (1) By adding molasses, ginger, and fruit, before baking. (2) By adding grated rind of a fresh lemon for flavoring. (3) Bake the ordinary pudding, to which the yolks of the eggs only have been added; then cover with a thin lemon-juice sauce, made on top of the stove. Finally cover with the beaten whites and brown in the oven.

Bits of old bread may also be dried in the oven, rolled into crumbs with a rolling-pin, then put away in a sealer to be used for bread-sauce, for stuffing, for covering croquettes with "egg and bread-crumbs, etc."

Left-over Meats.—A meat-chopper is one of the very best helps in using left-over meats, and one costs so little nowadays that it seems a pity not to have one. Meat may be run through it, then used up as follows:

(1) Mix with mashed potatoes, season, moisten a little with hot water or milk, put into a hot oven and bake, brushing over the top with egg or butter to brown. (2) Shepherd's Pie.—A recipe for this was given a short time ago in "The Farmer's Advocate." (3) Meat Pie.—Chop the meat and simmer with chopped vegetables and water. Thicken the gravy a little, season, then put good pastry over the top and bake. (4) Mix the meat with a little chopped onion, season with salt, pepper, spice or sage, make into little cakes, with egg or potato, and fry.

Fish.—Flake the fish, mix with mashed potatoes and a little cream, season, cover with egg and breadcrumbs, and fry.

Cake.—(1) Crumble stale cake and cover with a thin, boiled custard. Put beaten white of egg over the top, brown in the oven, dot with jelly, and serve hot or cold. Any left-over fruit may be mixed in with this pudding, or "trifle." Nut-meats are also an improvement.

Ingle Nook Notes.

The "whale" riddle, asked for by "O. K.," and kindly contributed by "Meg," "M. J.," and others, has been forwarded.

"Busy Betty" and others would like to write to "Anxious Mother." If the latter will kindly send me her address (not for publication, unless desired) I will be pleased to forward letters to her. . . . Just here, I would like to ask each correspondent to sign her full name and address to each communication. So many addresses are being asked for lately for private purposes that I must turn over a new leaf and keep a complete list.

Mrs. Sobersides, in her letter on infants' food, says the great secret is to keep the bottles clean and sweet. This is a thought worth emphasizing. "Germs," or bacteria, cause souring, fermenting, putrefaction and disease, and the only way of combating them is by boiling, by extreme cold, by exclusion of air, as you realize when you can fruit, or keep meat or butter on ice. I have a very dear friend, who has twin babies, the healthiest looking little chubbies one would wish to see, and she has always made a point of sterilizing their bottles; not only by rinsing with hot water, but by boiling the bottles. We cannot realize too strongly the tremendous power of bacteria.

Beulah, Wellington Co., Ont., says she can sympathize with Jack's Wife, as she is in the very same boat, a baby and too much work. It is up to you two to get chummy, if you will forgive the slang.

Desire-to-Help, Halton Co., Ont., was one of the many who responded to Anxious Mother's enquiry. She sent a very excellent paper, which has not been published, because it practically covered the same ground as the letter on the same subject from Jack's Wife. Both of these correspondents quoted directly from "The Care and Feeding of Children," written by L. Emmett Holt, head of the Babies' Hospital, New York City, a book which our Halton friend strongly urges every mother to possess. By the way, Desire, (how funny Puritanical that sounds!) do we not recognize in you a pioneer Chatterer? We are very glad to see you back again.

The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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CHAPTER IX.—Continued.

"Or foolish thoughts into their hearts, Jean!" replied she, laughing.

"And nothing more natural, Babet, if women's hearts are wise enough in their folly to like our foolish thoughts of them. But there are two! Who is that riding with the gentleman? Your eyes are better than mine, Babet!"

"Of course, Jean! that is what I always tell you, but you won't believe me—trust my eyes, and doubt your own! The other gentleman," said she, looking fixedly, while her knitting lay still in her lap, "the other is the young Chevalier de Repentigny. What brings him back before the rest of the hunting party, I wonder?"

"That officer must have been to Beaumanoir, and is bringing the young seigneur back to town," remarked Jean, puffing out a long thread of smoke from his lips.

"Well, it must be something better than smoke, Jean!"—Babet coughed; she never liked the pipe—"The young chevalier is always one of the last to give up when they have one of their three-days' drinking bouts up at the Chateau. He is going to the bad, I fear—more's the pity! Such a nice, handsome fellow, too!"

"All lies and calumny!" replied Jean, in a heat. "Le Gardeur de Repentigny is the son of my dear old seigneur. He may get drunk, but it will be like a gentleman if he does, and not like a carter, Babet, or like a—"

"Boatman! Jean; but I don't include you—you have never been the worse for drinking water since I took care of your liquor, Jean!"

"Ay, you are intoxication enough of yourself for me, Babet! Two bright eyes like yours, a pipe and bitters, with grace before meat, would save any Christian man in the world." Jean stood up, politely doffing his red tuque to the gentlemen. Le Gardeur stooped from his horse to grasp his hand, for Jean had been an old servitor at Tilly, and the young seigneur was too noble-minded and polite to omit a kindly notice of even the humblest of his acquaintance.

"Had a busy day, Jean, with the old ferry?" asked Le Gardeur, cheerily.

"No, your Honor, but yesterday I think half the countryside crossed over to the city on the King's corvee. The men went to work, and the women followed to look after them, ha! ha!" Jean winked provokingly at Babet, who took him up sharply.

"And why should not the women go after the men? I trow men are not so plentiful in New France as they used to be before this weary war began. It well behooves the women to take good care of all that are left."

"That is true as the Sunday sermon," remarked Jean. "Why, it was only the other day I heard that great foreign gentleman, who is the guest of His Excellency the Governor, say, sitting in this very boat, that there are at this time four women to every man in New France! If that is true, Babet—and you know he said it, for you were angry enough—a man is a prize indeed, in New France, and women are plenty as eggs at Easter!"

"The foreign gentleman had much assurance to say it, even if it were true; he were much better employed picking up weeds and putting them in his book!" exclaimed Babet, hotly.

Let us send you a Peerless Incubator and Brooder to-day and start you on the right road to profitable poultry raising

YOU can make more money out of poultry for the time, attention and investment it requires, than any other department of your farm will produce. The money is there. Others are getting it and you can get your share. But you must go about it the right way. Anyone who is making money out of poultry to-day will tell you, that to be successful you must use an Incubator. All you have to do is get the facts and decide which incubator will give you the best results.

Now we have studied poultry conditions in Canada very closely—have been doing so for years. We have been raising poultry for years on our farm—the Poultry Yards of Canada Limited at Pembroke—and making good money out of it. It was raising poultry on this farm, looking for every means to make it more successful, more profitable, that induced us to make a thorough study of artificial incubation, and failing to find any other make of Incubator coming up to the standard of success that we were looking for, we produced the Peerless Incubator out of the knowledge and experience which actual poultry-raising in Canada taught us. It has proved to be the most successful of all the ones we have tested. The Peerless is the only incubator used on our farm. If there was a better one made any place in the world we would use it—for our object is to make the biggest possible profits out of poultry.

It stands to reason that the Peerless Incubator must be the most successful in Canada. It is the only one that is made in Canada to suit Canadian conditions and as the direct results of experience in poultry raising in Canada.

The Peerless Incubator has been thoroughly tested in all parts of Canada under all prevailing climatic conditions. In every case it has proven the most successful.

We have thousands of letters from all over Canada telling of the success our customers are having with the Peerless Incubator. Very likely some of these letters come from your neighbors. What we have said of the Peerless Incubator also applies to the Peerless Brooder. It is built to suit Canadian conditions and has proved itself to be the best brooder for use in Canada.

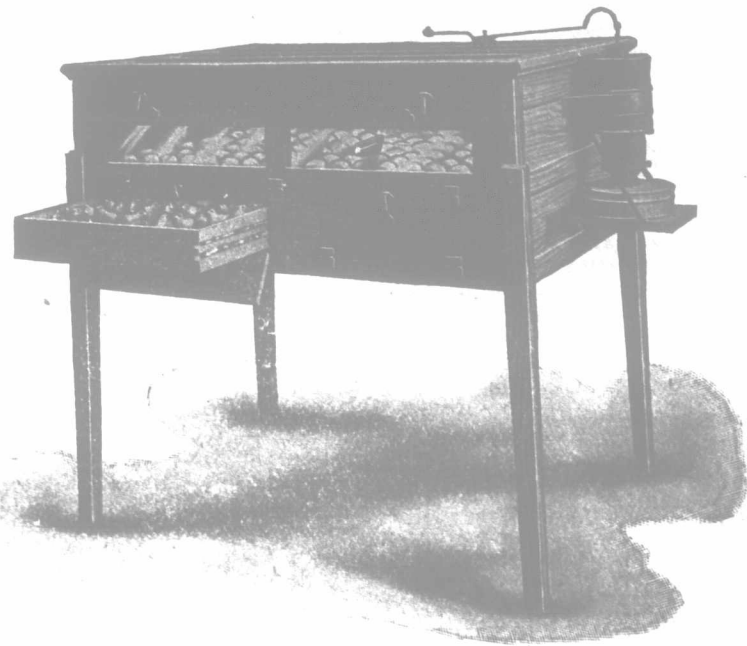
Right in your district money is being made out of raising poultry the Peerless way—you can make it too. Write for our book "When Poultry Pays." It tells the whole story. Sit down now, while you are thinking of it, and write for this free book.



Genuine advice and help for poultry raisers given by the Peerless Poultry-for-profit Club



We are honestly interested in the success of every purchaser of a Peerless Outfit. We want to help him in every way make every cent he can out of poultry. For this reason we have formed the Peerless Poultry-for-profit Club. Every user of a Peerless Outfit is entitled to the free advice and help of the experts on the farm of the Poultry Yards of Canada Limited. No matter what problem comes up—hatching, fattening, laying more eggs—just write us and the return mail will bring you full instructions. If you cannot get all the profit you think you are entitled to, just write us and we'll put you in touch with buyers who will pay the very highest market prices.



\$510 in Cash Prizes for the most successful poultry raisers—

We are thoroughly interested in the poultry industry of Canada. We want to see it become much bigger and more profitable. We want to see Canadian poultry raisers take more interest in their work and become more proficient in the operating of incubators. We know that if we can create a competitive feeling among poultry raisers we will have done much for the industry in Canada. For these reasons we offer \$510 in cash prizes to the poultry raisers who are most successful. The prizes are divided as follows:—

First Prize	- - -	\$100.00
Second Prize	- - -	50.00
Third Prize	- - -	25.00
Ten prizes \$10 each	- - -	100.00
Twenty prizes \$5 each	- - -	100.00
Twenty prizes \$3 each	- - -	60.00
Twenty-five prizes \$2 each,	- - -	50.00
Twenty-five prizes \$1 each,	- - -	25.00

The competition is open to every owner of a Peerless Incubator. Professor A. G. Gilbert, Chief of the Government Poultry Department at Ottawa, has kindly consented to act as judge.

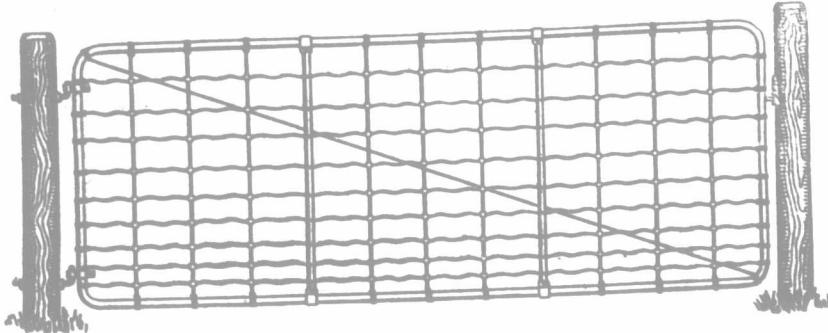
The names of the winners will be published in this journal after the awards are made. Write to-day for full particulars.

We are helping lots of Peerless users to make big money now—we can help you do it, too. Write us to-day for particulars.

LEE Manufacturing Co. Limited, 446 Pembroke St., Pembroke, Ontario, Canada

Welded Pipe Sections— and Better Galvanizing

NOT content with having "Frost" Gates imitated we have installed a modern galvanizing plant for coating the frames of all plain and fancy gates. Thus, we are able to give "Frost" Gates a more permanent finish than their imitations. The pipe is first put through a pickling process which removes all dirt, grease and scale, so that the galvanizing not only spreads all over the surface of the metal, but goes into it, filling up the pores and giving an even, smooth and exceptionally durable coating.



Furthermore, "Frost" Gates have the distinction of being the first in which the frame is not weakened by having the "thread" cut half way into the pipe in order to join it to the coupling. No "threaded" ends—no couplings—in "Frost" Gates. Instead, the pipe sections are WELDED together, making the part that was heretofore the weakest now the thickest and heaviest. And by welding, the tubing is made continuous—the gates are free from unsightly couplings.

When ordering, don't just ask for a metal gate. Specify a "Frost" Galvanized Gate. No extra charge is made for the welded-improvement or for the more handsome and permanent finish.

There is a hustling dealer in your neighborhood who makes a business of supplying "Frost" Gates and building "Frost" Fences. If he is not known to you, write us.

FROST WIRE FENCE CO., LIMITED, HAMILTON, ONTARIO.
MANITOBA FROST WIRE FENCE CO., LIMITED, WINNIPEG, MAN.

"Frost" Gates

"Come! come!" cried Le Gardeur, interrupting this debate on the population; "Providence knows the worth of Canadian women, and cannot give us too many of them. We are in a hurry to get to the city, Jean, so let us embark. My aunt and Amelie are in the old home in the city; they will be glad to see you and Babet," added he, kindly, as he got into the boat.

Babet dropped her neatest courtesy, and Jean, all alive to his duty, pushed off his boat, bearing the two gentlemen and their horses across the broad St. Charles to the King's Quay, where they remounted, and, riding past the huge palace of the Intendant, dashed up the steep Cote au Chien and through the city gate, disappearing from the eyes of Babet, who looked very admiringly after them. Her thoughts were especially commendatory of the handsome officer in full uniform who had been so polite and generous in the morning.

"I was afraid, Jean, you were going to blurt out about Mademoiselle des Meloises," remarked Babet to Jean on his return; "men are so indiscreet always!"

"Leaky boats! leaky boats! Babet! no rowing them with a woman aboard! sure to run on the bank. But what about Mademoiselle des Meloises?" Honest Jean had passed her over the ferry an hour ago, and been sorely tempted to inform Le Gardeur of the interesting fact.

"What about Mademoiselle des Meloises?" Babet spoke rather sharply. "Why, all Quebec knows that the Seigneur de Repentigny is mad in love with her."

"And why should he not be mad in love with her if he likes?" replied Jean; "she is a morsel fit for a king, and if Le Gardeur should lose both his heart and his wits on her account, it is only what half the gallants of Quebec have done."

"Oh, Jean, Jean! it is plain to see you have an eye in your head, as well as a soft place!" ejaculated Babet, recommencing her knitting with fresh vigor, and working off the electricity that was stirring in her.

"I had two eyes in my head when I chose you, Babet, and the soft place was in my heart!" replied Jean, heartily. The compliment was taken with a smile, as it deserved to be. "Look you, Babet, I would not give this pinch of snuff," said Jean, raising his thumb and two fingers, holding a good dose of the

pungent dust—"I would not give this pinch of snuff for any young fellow who could be indifferent to the charms of such a pretty lass as Angeliqne des Meloises.

"Well, I am glad you did not tell the Seigneur de Repentigny that she had crossed the ferry and gone—not to look for him, I'll be bound! I will tell you something by and by, Jean, if you will come in and eat your dinner; I have something you like."

"What is it, Babet?" Jean was, after all, more curious about his dinner than about the fair lady.

"Oh, something you like—that is a wife's secret: keep the stomach of a man warm, and his heart will never grow cold. What say you to fried eels?"

"Bravo!" cried the gay old boatman, as he sang:

"Ah! ah! ah! frit a l'hulle,
Frit au beurre et a l'ognon!"

and the jolly couple danced into their little cottage—no king and queen in Christendom half so happy as they.

CHAPTER X.

Amelie de Repentigny.

The town house of the Lady de Tilly stood on the upper part of the Place d'Armes, a broad, roughly-paved square. The Chateau of St. Louis, with its massive buildings and high, peaked roofs, filled one side of the square. On the other side, embowered in ancient trees that had escaped the axe of Champlain's hardy followers, stood the old-fashioned Monastery of the Recollets, with its high belfry and broad, shady porch, where the monks in gray gowns and sandals sat in summer, reading their breviaries or exchanging salutations with the passers-by, who always had a kind greeting for the brothers of St. Francis.

The mansion of the Lady de Tilly was of stone, spacious and ornate, as became the rank and wealth of the Seigneurs de Tilly. It overlooked the Place d'Armes and the noble gardens of the Chateau of St. Louis, with a magnificent sweep of the St. Lawrence, flowing majestically under the fortress-crowned cape and the high, wooded hills of Lauzon, the farther side of the river closing the view.

In the recess of an ornate mulioned window, half concealed by the rich, heavy curtains of a noble room, Amelie de Repentigny sat alone—very quiet in look and demeanor, but no little agitated in mind, as might be noticed in the nervous contact of her hands, which lay in her lap, clasping each other very hard, as if trying to steady her thoughts.

Her aunt was receiving some lady visitors in the great drawing-room. The hum of loud feminine voices reached the ear of Amelie, but she paid no attention, so absorbed was she in the new and strange thoughts that had stirred in her mind since morning, when she had learned from the Chevalier La Corne of the return to New France of Pierre Philibert. The news had surprised her to a degree she could not account for. Her first thought was, how fortunate for her brother that Pierre had returned; her second, how agreeable to herself. Why? She could not think why; she wilfully drew an inference away from the truth that lay in her heart—it was wholly for the sake of her brother she rejoiced in the return of his friend and preserver. Her heart beat a little faster than usual—that was the result of her long walk and disappointment at not meeting Le Gardeur on her arrival yesterday. But she feared to explore her thoughts; a rigid self-examination might discover what she instinctively felt was deeply concealed there.

A subtle, indefinable prevision had suggested to her that Colonel Philibert would not have failed to meet Le Gardeur at Beaumanoir, and that he would undoubtedly accompany her brother on his return, and call to pay his respects to the Lady de Tilly

PURITY FLOUR

And Its Keeping Qualities

SOME people find it necessary to buy a considerable quantity of flour at one time—sufficient to last for a long period. Naturally they are anxious to procure a flour of the kind best adapted to lengthy storage.

There are two important reasons why PURITY FLOUR possesses these qualities. One is that it is made entirely from Manitoba Hard Wheat. The other lies in the fact that the careful milling necessary to produce "Purity" absolutely excludes all low-grade particles of the wheat berry. It's the high grade Manitoba Hard Wheat Flour that keeps—stands longest storage.

That's "Purity."

"Purity" flour may cost a little more, but is more than worth the difference. Try it. Watch results both for quality and yield.



"More Bread and better Bread"

WESTERN CANADA FLOUR MILLS CO., LIMITED
Mills at Winnipeg, Goderich, Brandon.

FREE Sample of Asbestos and Book about Roofing

EVERYONE contemplating building or repairing should get a sample of *crude Asbestos*—the *pre-proof, indestructible mineral* used exclusively by us in the manufacture of ready roofing. Our Booklet explains why.

J-M ASBESTOS ROOFING

is cheaper than tin, shingle and slate roofs, and more economical than any other ready roofing—why it resists fire, rot, rust and wear, and why it requires no coating or painting. J-M ROOFING is ideal for farm, stock and poultry buildings, because it keeps out the cold in winter and the heat in summer, and has always an attractive, white appearance without painting. Write for Book No. 80 and Samples.

The Canadian H. W. Johns-Manville Co., Ltd., 85-87 Wellington St., West Toronto.

MARCH 4, 1909

and—to herself. She felt her cheek glow at the thought, yet she was half-vexed at her own foolish fancy, as she called it. She tried to call upon her pride, but that came very laggardly to the relief of her discomposure.

Her interview, too, with Anglique des Meloises had caused her no little disquiet. The bold avowals of Anglique with reference to the Intendant had shocked Amelie. She knew that her brother had given more of his thoughts to this beautiful, reckless girl than was good for his peace, should her ambition ever run counter to his love.

The fond sister sighed deeply when she reflected that the woman who had power to make prize of Le Gardeur's love was not worthy of him.

It is no rare thing for loving sisters who have to resign their brothers to others' keeping to think so. But Amelie knew that Anglique des Meloises was incapable of that true love which only finds its own in the happiness of another. She was vain, selfish, ambitious, and—what Amelie did not yet know—possessed of neither scruple nor delicacy in attaining her objects.

It had chimed the hour of noon upon the old clock of the Recollets, and Amelie still sat looking wistfully over the great square of the Place d'Armes, and curiously scanning every horseman that rode across it. A throng of people moved about the square, or passed in and out of the great arched gateway of the Castle of St. Louis. A bright shield, bearing the crown and fleur-de-lis, surmounted the gate, and under it walked, with military pace, a couple of sentries, their muskets and bayonets flashing out in the sun every time they wheeled to return on their beat. Occasionally there was a ruffle of drums; the whole guard turned out and presented arms, as some officer of high rank, or ecclesiastical dignitary, passed through to pay his respects to the Governor, or transact business at the vice-regal court. Gentlemen on foot, with chapeaux and swords, carrying a cloak on their shoulders; ladies in visiting dress; habitans and their wives in unchanging costume; soldiers in uniform, and black-gowned clergy, mingled in a moving picture of city life, which, had not Amelie's thoughts been so preoccupied to-day, would have afforded her great delight to look out upon.

The Lady de Tilly had rather wearied of the visit of the two ladies of the city, Madame de Grandmaison and Madam Couillard, who had bored her with all the current gossip of the day. They were rich and fashionable, perfect in etiquette, costume, and most particular in their society; but the rank and position of the noble Lady de Tilly made her friendship most desirable, as it conferred in the eyes of the world a patent of gentility which held good against every pretension to overtop it.

The stream of city talk from the lips of the two ladies had the merit of being perfect of its kind—softly insinuating and sweetly censorious, superlative in eulogy and infallible in opinion. The good visitors most conscientiously discharged what they deemed a great moral and social duty by enlightening the Lady de Tilly on all the recent lapses and secrets of the capital. They slid over slippery topics like skaters on thin ice, filling their listener with anxiety lest they should break through. But Madame de Grandmaison and her companion were too well exercised in the gymnastics of gossip to overbalance themselves. Half Quebec was run over and run down in the course of an hour.

Lady de Tilly listened with growing impatience to their frivolities, but she knew society too well to quarrel with its follies when it was of no service to do so; she contented herself with hoping it was not so bad. The Pope was not Catholic enough to suit some people, but, for her part, she had generally found people better than they were called.

A rather loud but well-bred exclamation of Madame de Grandmaison roused Amelie from her day-dream.

"Not going to the Intendant's ball at the Palace, my Lady de Tilly! neither you nor Mademoiselle de Repentigny, whom we are so sorry not to have seen to-day? Why, it is to be the most magnificent affair ever got up in New France. All Quebec has rung with nothing else for a fortnight, and every milliner and modiste in the city has gone almost insane over the superlative costumes to be worn there."

"And it is to be the most select in its character," chimed in Madame Couillard; "all gentry and noblesse, not one of the bourgeois to be invited. That class, especially the female portion of them, give themselves such airs nowadays! As if their money made them company for people of quality! They must be kept down, I say, or—"

"And the Royal Intendant quite agrees with the general sentiment of the higher circles," responded Madame de Grandmaison. "He is for keeping down—"

"Noblesse! Noblesse!" The Lady de Tilly spoke with visible impatience. "Who is this Royal Intendant who dares cast a slight upon the worthy, honest bourgeoisie of this city? Is he noble himself? Not that I would think worse of him were he not, but I have heard it disputed. He is the last one who should venture to scorn the bourgeoisie."

Madame de Grandmaison fanned herself in a very stately manner. "Oh, my Lady, you surely forget! The Chevalier Bigot is a distant relative of the Count de Marville, and the Chevalier de Grandmaison is a constant visitor to the Intendant's! But he would not have sat at his table an hour had he not known that he was connected with the nobility. The Count de Marville—"

"The Count de Marville!" interrupted the Lady de Tilly, whose politeness almost gave way. "Truly, a man is known by the company he keeps. No credit to any one to be connected with the Count de Marville."

Madame de Grandmaison felt rather subdued. She perceived that the Lady de Tilly was not favorably impressed towards the Intendant. But she tried again: "And then, my Lady, the Intendant is so powerful at Court. He was a particular friend of Madame d'Etioles before she was known at Court, and they say he managed her introduction to the King at the famous masked ball at the Hotel de Ville, when His Majesty threw his handkerchief at her, and she became first dame du palais and the Marquise de Pompadour. She has ever remained his firm friend, and, in spite of all his enemies could do to prevent it, His Majesty made him Intendant of New France."

"In spite of all the King's friends could do, you mean," replied the Lady de Tilly, in a tone the sound of which caught the ear of Amelie, and she knew her aunt was losing patience with her visitors. Lady de Tilly heard the name of the royal mistress with intense disgust, but her innate loyalty prevented her speaking disparagingly of the King. "We will not discuss the Court," said she, "nor the friendships of this Intendant. I can only pray his future may make amends for his past. I trust New France may not have as much reason as poor lost Acadia to lament the day of his coming to the Colonies."

The two lady visitors were not obtuse. They saw they had roused the susceptibilities—prejudices they called them—of the Lady de Tilly. They rose, and smothering their disappointment under well-bred phrases, took most polite leave of the dignified old lady, who was heartily glad to be rid of them.

"The disagreeable old thing—to talk so of the Intendant!" exclaimed Madame Couillard, spitefully, "when her own nephew, and heir in the Seigniorship of Tilly, is the Intendant's

firmest friend and closest companion."

"Yes, she forgot about her own house; people always forget to look at home when they pass judgment upon their neighbors," replied Madame de Grandmaison. "But I am mistaken if she will be able to impress Le Gardeur de Repentigny with her uncharitable and unfashionable opinions of the Intendant. I hope the ball will be the greatest social success ever seen in the city, just to vex her and her niece, who is as proud and particular as she is herself."

Amelie de Repentigny had dressed herself to-day in a robe of soft muslin of Deccan, the gift of a relative in Pondicherry. It enveloped her exquisite form, without concealing the grace and lissomeness of her movements. A broad blue ribbon round her waist, and in her dark hair a blue flower, were all her adornments, except a chain and cross of gold, which lay upon her bosom, the rich gift of her brother, and often kissed with a silent prayer for his welfare and happiness. More than once, under the influence of some indefinable impulse, she rose and went to the mirror, comparing her features now with a portrait of herself taken as a young girl in the garb of a shepherdess of Provence. Her father used to like that picture of her, and to please him she often wore her hair in the fashion of Provence. She did so to-day. Why? The subtle thought in many Protean shapes played before her fancy, but she would not try to catch it—no! rather shyly avoided its examination.

She was quite restless, and sat down again in the deep recess of the window, watching the Place d'Armes for the appearance of her brother.

She gave a sudden start at last, as a couple of officers galloped into the square and rode towards the great gate of the Chateau; one of them she instantly recognized as her brother; the other, a tall martial figure, in full uniform, upon a fiery gray, she did not recognize, but she knew in her heart it could be no other than Colonel Philibert.

Amelie felt a thrill, almost painful in its pleasure, agitating her bosom, as she sat watching the gateway they had entered. It was even a momentary relief to her that they had turned in there, instead of riding directly to the house. It gave her time to collect her thoughts and summon all her fortitude for the coming interview. Her fingers wandered down to the rosary in the folds of her dress, and the golden bead, which had so often prompted her prayer for the happiness of Pierre Philibert, seemed to burn to the touch. Her cheek crimsoned, for a strange thought suddenly intruded—the boy Pierre Philibert, whose image and memory she had so long and innocently cherished, was now a man, a soldier, a councillor, trained in courts and camps! How unmaidently she had acted, forgetting all this in her childish prayers until this moment! "I mean no harm," was all the defence she could think of. Nor had she time to think more of herself, for, after remaining ten minutes in the Chateau, just long enough to see the Governor and deliver the answer of the Intendant to his message, the gray charger emerged from the gate. His rider was accompanied by her brother and the well-known figure of her godfather, La Corne St. Luc, who rode up the hill, and in a minute or two dismounted at the door of the mansion of the Lady de Tilly.

The fabled lynx, whose eye penetrates the very earth to discover hidden treasure, did not cast a keener and more inquisitive glance than that which Amelie, shrouded behind the thick curtains, directed from the window at the tall, manly figure and handsome countenance of him whom she knew to be Pierre Philibert. Let it not detract from her that she gave way to an irresistible impulse of womanly curiosity. The Queen of

On Choosing Wall-Papers for Cheerful Effect

MANY good People select Wall-papers as they select dress-goods. They choose certain Colorings because such are their favorites or the favorites of individual members of the family.

They lose sight of the fact that Wall-covering should be selected solely with regard to its *Influence* upon those who must constantly "live with" it.

Many a Wall-paper that promised well in the roll, and was purchased on impulse, has become a horror to the sick person who must lie in bed and look at it day after day before him.

"No influence upon life is so potent as harmonious surroundings."
"The paper of a room in which we live has a silent but irresistible influence upon us."

And,—three-fourths of what meets the eye in a room is the design and color of its Wall-paper.

That Wall-paper therefore supplies to the room its atmosphere of Cheerfulness and Restfulness, or of Depression and Irritability.

People who live in constant association with clamorous Colors, gaudy "Gold-papers," poor pictures, and tawdry ornament, suffer a depreciation from it as surely they would from a continuous mental diet of silly, ungrammatical reading, yellow-backed-novel, and piffle.

Now, many people live in undesirable surroundings without knowing exactly what selections should be made, and what rules of Color to follow, in order to improve them.

A little book by Walter Reade Brightling, just published, points the way in an interesting manner.

Its title is "Wall-paper Influence on the Home."

It is well worth a dollar at a book store but is sold by your wall paper dealer, at 25 cents, or mailed at same price by the publishers, who are the Watson-Foster Co., Ltd., Ontario St., East, Montreal.



The ordinary lamp wherever used spoils all lighting effects by its downward shadow. Replace it with

The Angle Lamp

and the improvement will surpass belief. "No under-shadow" is a great feature. But for the quality of its light alone it is superior to gas and electricity in city and country homes. Its light has all of their power with none of their glare and unsteadiness—soft, mellow, eye resting, and absolutely free of the smoking and offensive odors of ordinary lamps, either. There is nothing like it for convenience. It lights and extinguishes like gas, without removing globe—one fitting burn 16 to 25 hours, costing about 15 cents a month for oil. Compare that with the monthly gas and electric bills, or even the cost of that troublesome, smoky, smelly lamp you are using. For quality of the light, economy and satisfaction for all lighting purposes, there can be no comparison. It is the cheapest and the best kind of illumination.

30 DAYS FREE TRIAL to show its superiority. You are sure to buy it if you know it. Write at once for our book which explains all. Ask for catalogue No. "63."

THE 1900 WASHER CO. 355 1/2 Yonge St. Toronto, Ont.

For Sale: Imported Clydesdale Stallion

ADONIS (10953). Sired by the noted Baron's Pride (9122). Bay in color. He has travelled six successful seasons in this vicinity. Five and a half miles from Mt. Forest station, G. T. R., or three and a half miles from Holstein station, G. T. R.

John McDougall, Jr. P. O. Box 238. Mt. Forest, Ont.

Fruit Raisers and Vegetable Growers! Can your own produce. Don't give Canning Trusts the profits. We'll show you how. Write CANNERS' SUPPLY CO., DETROIT, MICH.

Analysis and Tests.

Analysis, if properly made, will show the food value of any preparation. The ingredients cannot be separated by analysis. So far as Herbageum is concerned, no food value is claimed. It is the aromatic qualities of Herbageum that make it valuable. It aids the animal to thoroughly digest and assimilate the ordinary food, so that there is no waste of food value. Herbageum does this, but analysis does not show these aromatic qualities, or how Herbageum does the work. A practical test of Herbageum proves its value. Make a test now by feeding an even tablespoon twice daily to one animal. Test it on some animal that is not doing as well as the others.



SETTLERS' TRAINS

TO

MANITOBA, ALBERTA SASKATCHEWAN

By Canadian Pacific direct line

<p style="font-size: small;">For Settlers travelling with livestock and effects</p> <p>Special Trains</p> <p>will leave Toronto</p> <p>Each TUESDAY in MARCH and APRIL at 10.15 p.m.</p>	<p style="font-size: small;">Settlers and families without livestock should use</p> <p>Regular Trains</p> <p>leaving Toronto</p> <p>10.15 p.m. daily</p> <p>Tourist Sleeping Cars</p> <p style="text-align: right;">Fastest Time</p>
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COLONIST CARS ON ALL TRAINS
No Charge for Berths

Low Colonist Rates

Only Through Service to the West

Apply to nearest agent for full information and free copy of "Settlers' Guide" or write R. L. Thompson, D.P.A., G.P.R., Toronto

GRAND TRUNK RAILWAY SYSTEM

SETTLERS

Low rates to certain points in Saskatchewan and Alberta, via Chicago or Port Arthur, each

**TUESDAY DURING
MARCH AND APRIL.**

TO COBALT AND GOWGANDA

The pioneer route is via Grand Trunk and T. & N. O. Rys.

Full information from

Grand Trunk Agents.

Vinemount Creamery FOR SALE

THOMAS BURROWS, Auctioneer, will sell under mortgage the Vinemount Creamery, otherwise known as the Vinemount Butter & Cheese Factory, on

SATURDAY, MARCH 20th, 1909,

At noon at his auction rooms, 11 Rebecca street, HAMILTON, ONTARIO.

The creamery is equipped with modern machinery, 24-h.p. boiler, 16-h.p. engine, with modern pasteurizer and separators. Buildings cement-concrete, with large grain chopper in connection. There is a good water supply and good drainage; fresh-water pond within 20 feet of building for ice and water for boiler. The property comprises one acre, part of lot 8 in the fourth concession of the Township of Saltfleet, in the County of Wentworth. It adjoins Vinemount station on the T. H. & B. 17 minutes by rail from Hamilton and 1 hour and 15 minutes from Toronto.

The territory is capable of furnishing from five to ten tons of milk a day in good seasons. There is no better situation in Ontario for wholesale cream or ice cream trade with Hamilton, Toronto and Niagara Falls. A good opening for a man with a little capital and plenty of push.

For terms and conditions of sale, apply to

CHISHOLM & LOGIE,
Vendor's Solicitors, Hamilton.

Dated March 5th, 1909.

Subscribe for "Farmer's Advocate"

France would, under the same temptation, have done the same thing, and perhaps without feeling half the modest shame of it that Amelie did. A glance sufficed—but a glance that impressed upon her mind forever the ineffaceable and perfect image of Pierre Philibert the man, who came in place of Pierre Philibert the boy friend of Le Gardeur and of herself.

(To be continued.)

BOOK REVIEW.

"The Canadian Cook Book," by Lucy Bowerman, is an excellent work of 350 pages, bound in oil cloth, made to stay open on the table where desired, and with a double index. No woman can have too much knowledge in the matter of cooking. Each woman who prides herself in her ability as a housekeeper and a homemaker, rightly prides herself on her ability to cook and serve the food of the family with a view to the health and happiness of the members of her household. A good cook book, written and compiled from a hygienic and practical standpoint, is essential in every home. Write for it to the Toronto Graduate Nurses' Club, 63 Isabella St., Toronto. Price \$1.25 net.

TRADE TOPICS.

NO CHANGE OF CARS

going to the Northwest by the Canadian Pacific direct line. Trains make fast time, no changes en route, no transfers or customs examinations. The route is attractive and interesting. Being the short line, the C. P. R. sets the standard for low rates. Special settlers' train service during March and April. Ask agent for particulars.

The popularity of Gombault's Caustic Balsam is shown by the following letter from W. A. Douglass, of Maple Creek, Ont., to the Lawrence Williams Co.: "Enclosed find express order for \$3.00, for which please send me two bottles of Gombault's Caustic Balsam. Have been a constant user of this for a number of years, and think it is the greatest medicine ever made."

PULLING STUMPS.—To avoid unnecessary delays in soil cultivation, the field should be absolutely free of stumps. In some parts of Canada, stumps are comparatively common on cultivated areas. Burning is a slow process of removing them. By using a good machine, a quick job is made of it. Canadian Swensons, Limited, of Lindsay, Ont., whose advertisement appears in this issue, will send particulars about their malleable stump pullers on receipt of post card.

STANDARD DIP.—Writing to Messrs. William Cooper & Nephews regarding Cooper's Fluid, W. W. Ballantyne, of Stratford, Ont., says: "You, doubtless, will be pleased to know that I have used 'Cooper's Dip' on my herd, and have found it to be everything claimed for it. No doubt, when this valuable preparation becomes better known among Canadian breeders, it will be as extensively used in Canada as it now is in other countries, where it is known as the standard dip."

HARBINGER OF GOOD TIMES.—The farmers' prospects were brightened long ago by the invention of wonderful labor-saving and time-saving implements, which have enabled him to increase his yield and market his output with corresponding increase of profits, despite depressed conditions in the industrial world. One of the most important factors in bringing about this condition, was the invention of Planet Jr. Farm and Garden Implements. They have done much to revolutionize the slow, laborious old gardening and farming methods. The combination hill and drill seeder, wheel hoe, cultivator, furrower and plow is complete. All Planet Jr. tools are sold with an iron-clad guarantee of absolute satisfaction. S. L. Allen & Company, Box 1108 F, Philadelphia, Pa., who make these implements, have issued a handsome 56-page illustrated catalogue for 1909, which they are sending out to anyone interested in better farming methods and labor-saving devices.

Among the many high-class roofings now on the market to take the place of shingles is an asbestos covering, advertised in this issue by H. W. Johns-Manville Co., of Toronto. For farm buildings of all kinds, the manufacturers claim that it is the "cheapest-per-year" roofing on the market. An experience of fifty years led them to select asbestos as the proper material for the production of an ideal roof-covering. Being both fire and water proof, and so very durable, the demand, do doubt, will increase.

STEEL SHOES FOR FARMERS.—Thousands of farmers have discontinued the use of all-leather work shoes and are now wearing Steel Shoes, which have been made with the object of thorough protection for the feet of those who are obliged to work in the mud and slush. The whole idea of inventors, up to recently, has been to increase the farmers' harvest of dollars. Now comes the Steel Shoe—designed to afford foot comfort and protect the health of the farmer himself. The farmer undergoes much discomfort, and often suffers from colds and rheumatism as the result of working long hours, in wet and cold, with inadequate foot protection. Steel Shoes have an absolutely rigid sole, which forces the leather to keep its shape. This extends an inch above the bottoms all around the shoe. The bottoms are studded with adjustable steel rivets, which can be replaced as fast as they wear out. No other repairs are ever necessary. It is claimed that one pair of Steel Shoes will outlast three to six pairs of all-leather shoes. Yet the cost of Steel Shoes is less than all-leather shoes. Readers of this paper who seek an easy, comfortable shoe, and perfect safety from all the ills that follow cold, wet feet, should wear steels. The Steel Shoe Co., Dept. 83, Racine, Wisconsin, or Toronto, Canada, make them. Send them \$3.00 for 6-inch high shoes, or \$3.50 for a pair of 9-inch high shoes, mentioning "The Farmer's Advocate."

GOSSIP.

The Shorthorns advertised by L. K. Weber, Hawkesville, Ont., are claimed to be a right good lot as to size, quality, color and breeding. All females of breeding age are in calf to Lord Lieutenant (Imp.), now at the head of the herd. Every animal is imported, or bred direct from imported stock.

Mr. R. T. Brownlee, Hemmingford, Que., offers for sale in our advertising columns, three registered Clydesdale stallions. These horses were shown at the leading fairs last fall, and secured the highest awards, in good company. They are all good-sized, with lots of quality and good colors. Parties wanting good young stallions will do well to call and see these horses, or write for particulars.

The Hampshire Down sheep-breeders' Association, of Salisbury, Eng., in their advertisement in this issue, refer to the adaptation of the breed to all climates. A hardy constitution, early maturity, with a large percentage of lean meat in an excellent carcass, and desirable wool-product, makes them popular where known. It is pointed out that a representative of the Hampshire Downs was pronounced grand champion at the Smithfield Show in 1908.

SALE DATES CLAIMED.

March 9th.—Fitzgerald Bros., Mount St. Louis, Ont.; Shorthorns.

March 9th.—Geo. M. Smith & Sons, Haysville, Ont.; Yorkshires and Cotswolds.

March 10th.—Wm. Thompson, Uxbridge, Ont.; Clydesdale horses, Shorthorn cattle, and Cotswold sheep.

March 11th.—At Port Perry, Ont.; pure-bred cattle.

March 11th and 12th.—Geo. Rice, Tillsonburg, Ont.; Holsteins and Ayrshires, dispersion.

March 15th.—H. Arkell & Son, Arkell, Ont.; Oxford Down ewes.

March 16th.—D. A. James, Nilestown, Ont.; Ayrshires.

March 17th.—Joseph Fletcher, Oxford Mills, Ont.; Shropshire sheep.

March 22nd.—At Union Stock-yards, West Toronto; Clydesdales.

Don't Throw It Away

USE MENDETS

They mend all leaks in all utensils—tin, brass, copper, granite, hot water bags, etc. No solder, cement or rivet. Anyone can use them; fit any surface; two million in use. Send for sample pkg. 10c. Complete pkg. assorted sizes, 25c postpaid. Agents wanted. Collette Mfg. Co., Dept. K, Collingwood, Ont.

INSURE



YOUR

IN FOAL MARES

Why risk the loss of a valuable Mare or Foal or both of them when a payment of a few dollars would indemnify you for such loss should it happen.

The General issues policies for 30 days, 6 months or 12 months covering the mare with or without the foal.

**Farm Horses, Stallions,
Castration, Cattle
Insurance**

Prospectuses sent Free on demand.

THE GENERAL
Animals Insurance Co. of Canada.
R. Ness, Pres. J. d'Halewyn, Sec.
New York Life Building, Dept. C,
Montreal, P. Q.

Burnett, Ormsby, Clapp, Ltd., General Agents for Eastern Ontario, Wellington St., Toronto.

New Telephone Directory

The Bell Telephone Company of Canada is about to publish a new issue of the

OFFICIAL TELEPHONE DIRECTORY

For the District of Western Ontario, including London.

Orders for new connections, changes of firm names, changes of street addresses, or for duplicate entries should be handed in at ONCE to

C. H. BEARD, Local Manager.

6,000 U. S. ARMY McCLELLAN SADDLES

from Government Auction Sales, on change of regulation from black to russet leather covering. **Genuine Rock Island Arsenal** made trees, fine black leather covered with brass rings and mountings, coat and stirrup straps, rawhide cinch straps, web cinch girth, large tread wood stirrups, in secondhand, serviceable order. **The Strongest, Best and Easiest Riding Saddle Made.** For a limited time we offer these fine saddles at the bargain price of **\$4.95 each**, with trade discount for case lots.

Our 292-page illustrated catalogue and supplement giving full particulars of our immense stock of **Army and Navy Auction Sale Bargains** mailed for 15 cents (stamp). **FRANCIS BANNERMAN, 501 Broadway, New York City.**

Seed Barley—A quantity of the famous No. 21 barley, which is the best at O. A. C., and also most popular throughout the Province since first distribution in 1906.

JOHN ELDER, Hensall, Ont.

When Writing, Mention This Paper.

GOSSIP.

The registered Percheron stallion, Mont-plaisant 43361, foaled 23rd May, 1905, is advertised for sale by V. Chateauvert, Quebec City, Que.

The imported Clydesdale stallion, Adonis (10953), a son of Baron's Pride (9122), is advertised for sale by John McDougall, Mt. Forest, Ont., 3 1/2 miles from Holstein Station, G. T. R.

Mr. Sylvester Campbell, of Kinellar, Aberdeenshire, Scotland, whose recent death at the age of 55 years, is announced, was well and widely known by Shorthorn breeders in America. He was considered one of the best judges of farm live stock in Scotland, and frequently served as judge at important shows. Mr. Campbell was a brother-in-law of John Isaac, of Markham, and his brothers, who imported many fine representatives of the Kinellar herd to Canada.

Breeders of Holstein and Ayrshire cattle and dairy farmers generally, should bear in mind the dispersion sale on March 11th and 12th, of the great herds of Mr. Geo. Rice, at Tillsonburg, Ont. The farm horses, hogs, seed-grain and implements will be sold on the 11th, and the cattle on the 12th. Probably never has so good an opportunity been offered in Canada to secure heavy-milking cows, or bulls and heifers bred from high-record dams. Mr. Rice has done grand work for the dairy industry of this country, and deserves a good sale, now that he is retiring from business. One hundred head to choose from should meet the wants of a very large attendance of buyers.

AYRSHIRES AT AUCTION.

The Sunny Springs Farm herd of Ayrshires, formerly owned by the late J. A. James, of Nilestown, and now owned by his son, D. A. James, who has sold the farm, and who announces in our advertising columns a clearing sale on March 16th, of the entire herd. This herd has had a steady growth of over 25 years. Some of the best females obtainable were secured as a foundation, and males from the well-known herds of Messrs. Kains, Ballantyne, Dymont, and others, have been used to build the herd to its present standard. These cattle have been raised for their production rather than the show-ring, being large and sturdy, having well-shaped udders and good teats. The noted cows, Daisy Queen 9705, and Trixie 9709, the former giving 13,158 lbs. milk, and the latter 11,222 lbs. in one year, were granddaughters from this herd, their mother being purchased directly from Mr. J. A. James. None of the cattle of this herd have ever been entered in Record of Performance, but there is no doubt if they were they would make an enviable record, owing to their general make-up, and high-milking strain in breeding. The bull at the head of the herd is Nellie's Lad of Hickory Hill 22476, purchased from Mr. N. Dymont, of Clappison's. He is a strong one, and has proven himself to be a good sire.

TRADE TOPICS.

BRANCH BANK CLOSED.—A circular from the Bank of Toronto, dated at the head office, February 26th, 1909, announced that the branch of this bank at Aurora would be closed on Monday, 1st March, and that any collections held by this branch would be handed to the Bank of Montreal, Aurora, for the account of the remitter.

COLONISTS' EXCURSIONS

To Pacific Coast and Mexico. Daily, until April 30th. The Grand Trunk Railway System will issue one-way second-class colonist tickets at low rates to Vancouver, B. C., Spokane, Wash., Seattle, Wash., Portland, Ore., Los Angeles, Cal., San Francisco, Cal., Mexico City, etc. Full information from Grand Trunk Agents.

QUESTIONS AND ANSWERS.

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

Miscellaneous.

HORSE WITH CHRONIC COUGH.

Horse has a hacking cough. Sometimes he does not feel well and is dull and dumpish. O. P.

Ans.—Chronic coughs are very hard to check. If his lungs are not diseased, a cure may be effected. Give him, every morning, a ball composed of 2 drams solid extract of belladonna, 1 1/2 drams powdered opium, 20 grains digitalis, and 1 dram camphor; add sufficient oil of tar to make plastic. Roll in tissue paper and administer.

USE OF MOVABLE CROSS LINES

Why are the cross lines on a set of harness fixed so that they can be changed backwards or forwards on the long line? J. S. K.

Ans.—The evident purpose of having the short cross-line attachments movable is to provide for wide or close travelling of the pair of horses. As the cross line is shifted forward the horses are pulled farther apart.

SNOW APPLES ON SHALLOW CLAY.

Would snow apple trees thrive on clay soil, in some places black, about three to five feet deep, on limestone rock? J. S. K.

Ans.—Apples thrive best on deep loam, with thorough drainage. Soil of limestone formation is desirable. No doubt you would have fair returns for a number of years if the drainage is good. If numerous cracks and crevices are to be found in the underlying rocks, other conditions being favorable, you should have satisfactory crops on your soil.

VOLUNTEER OAT SEEDING.

What do you think of a volunteer crop of oats? I sowed two and a half acres on the 4th of November, 1908. The land is in good shape and went in fine; is well sheltered and partly covered with snow. My reason for so doing is because a river runs nearly through the center of the place. Some springs it is late before the river is low enough to cross, and our late-sown grains are not as heavy, nor do they yield as much as those sown earlier. In 1907, being alone when cutting oats, the three horses on binder knocked down and threshed a wide strip in very ripe oats, which I had not time to lift up for binder, and in the following spring, 1908, I disked oats down eight inches in height, where the binder and horses went. Of course it was late that spring in seeding. G. E. H.

Ans.—Such method of seeding spring grains of any kind cannot be advised. Favorable winters and favorable locations may result in spring wheat, oats or barley surviving the rigors of winter and giving a fair crop, but as a rule the result is failure. The area that you have sown may turn out satisfactory, but risk attends efforts at producing this crop from fall sowing in Ontario. The dry weather of last autumn, and the very changeable weather since, most likely will result in serious damage. Farther south, oats sometimes are sown in November, December, January or February, as well as the ordinary spring sowing. The fact that the strip from 1907 survived, no doubt, can be credited largely to the location. The crop usually lies down in low spots, and here the oats would be protected throughout the winter. The long stubble, too, would help to give the necessary protection. If, however, low spots were not drained, or if snow piled up and lay too long in the spring, the crop might be drowned or smothered. Your best plan is to prepare the ground in the fall, drain it well, and sow the oats as early as it is fit to cultivate in spring. It would be interesting to know how last fall's seeding turns out.



MODEL Incubators and Brooders

AWARDED HIGHEST HONORS AT Toronto Industrial, Ottawa and Winnipeg Exhibitions.

Twelve Reasons Why YOU Should Use Model Goods:

- 1st. Because there are no other goods on the market just as good as the Model Goods. 2nd. Because we give about double the value for money that other manufacturers do. 3rd. Because you have no trouble in hatching good, strong, healthy chicks with the Model Incubators. 4th. Because the Model Regulators are as near perfect as it is possible to make them. We claim we have the best regulator on earth. 5th. Because you will find the Model the most simple machine to handle; no cut-offs or other devices. Model Incubators regulate themselves; once set will run a whole season without change. 6th. Because you can go to your rest at night perfectly satisfied that the lamp and regulator will take care of the machine without the least anxiety or care on your part.

- 7th. Because all our machines are manufactured of the best hardwood (chestnut) with double walls, and packed with wool. 8th. Because the Model Goods are built for business, and to last a lifetime. 9th. Because we do not attempt to compete with a lot of the poor trash there is on the market. 10th. Because we want you to try us just once. We know if you do we have made a life-long customer. 11th. Because the Model Brooders take care of the chicks when hatched and rear them. 12th. Because we could fill a book with reasons why you should purchase Model Goods, but don't know one reason why you should not send us along your order and give us a trial.

Our 1909 catalogue is out, and it's free for the asking. Address:

The Model Incubator Co., Ltd., River St., Toronto.

Don't Buy an Organ Solely on the Strength of Its Handsome Exterior

JUST as a "showy" case may conceal the "poor" works of a watch, so may "an over-ornamented" organ-case hide a "cheaply" constructed interior. You pay more for a "Sherlock-Manning" Organ than one that may look just about as good. This "difference" in price is due to the superior quality of the interior construction of the Sherlock-Manning Organ. As the "quality" and "durability" of tone and action depend on interior construction, you can readily see the wisdom of choosing the "Sherlock-Manning" Organ.



Sherlock-Manning Organ Co. LONDON, ONTARIO. 6

CLEANSING MAPLE SYRUP.

Please tell us different ways used for cleansing maple syrup. SUBSCRIBER.

Ans.—Maple syrup, when drawn from the evaporator at a temperature of 219°, can be filtered through a felt strainer, which will remove every particle of sediment or impurities, or when drawn into small vessels the size of sap-buckets at the above temperature, it will settle itself, so that all the sediment will go to the bottom, and the clear syrup can be removed by pouring it from one receptacle to the other. The better way, however, is by using the felt strainer. These can be obtained from the Grimm Manufacturing Co., Montreal, or any wholesale druggist.

DISEASE IN YOUNG DUCKS.

Can you give me any reason for young ducks dying when about two months old? They have lots of water in a running creek. They go around stupid for a couple of days, then they draw their head and neck back between their wings, and when they try to get up they fall backwards. They act that way for a few days and then die. What is the cause, and give me a cure, if there is any, as I have lost about forty last season? W. M. B.

Ans.—If I had ducks going similar to this, I would be inclined to send one of the sick ones to the Bacteriological

laboratory for examination. I presume that a lack of gravel in the feed might cause trouble similar to what is mentioned; also eating of unwholesome foods, such as decayed fish or meat, or there may be a general epidemic. If your correspondent had held a post-mortem, and could give us some idea of the appearance of the liver, caeca, lungs, etc., we would probably know more about it, but with the present information I cannot venture an opinion as to the trouble. W. R. GRAHAM.

RENTING A FARM ON SHARES.

In working a farm on shares, when there is no plowing done, and I would do all the work, and take the crops off and provide seed, pay for threshing, and all expense, what share would I expect of crop and pasture, and who would pay taxes and do road work? An early answer would oblige. A FARMER.

Ans.—So many factors enter into the question of renting on shares, such as fertility of farm, percentage of land in pasture, style of farming pursued, etc., that any answer that might be given without knowing these must be largely a guess. Hazarding such a guess, it may be said that if you do all the work, using your own team and implements, pay taxes and do road work, you should get two-thirds of all crops grown. T.

Wanted, Hustlers

We want at least one representative and valuator in every township in each county in Ontario to act as our agent in valuing, listing, selling and exchanging farms in his district. A farmer well acquainted with the value of farms in his neighborhood preferred.

We also want three or four energetic, honest and capable men to establish and organize our business in several counties in Ontario, to appoint sub-agents, superintend their work, and to send prospective purchasers into these counties. We will pay good salaries for the right man. Write, or apply at once, if you have the qualifications, as the organization of these counties must be completed within the next few weeks.

THE WESTERN REAL ESTATE EXCHANGE, LIMITED,
78 Dundas St., London, Ont.
TELEPHONE 696.

D. H. TENNENT, President.
JAMES BURROWS, Manager.
E. R. TALBOT and SAMUEL WILSON,
Valuators and Inspectors.



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

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

DAIRY and poultry products at Indian Head.—Butter sells readily at 25c. to 35c.; Eggs 20c. to 40c. Poultry 15c. to 22c. Cause, exclusive wheat farming. Wanted, several families experienced in mixed farming to buy "park lands" farms (partly open and partly wooded) at prices ranging from \$8 to \$20 per acre. If you are interested and understand the business, write us for fuller information. The Eastern Sask. Land Co., Indian Head, Sask.

ENDERBY, the home section of the famous Okanagan, offers exceptional opportunities to homeseekers. For reliable information write: The Enderby Board of Trade, Enderby, B. C.

PEDIGREED CHERRY TREES—We have a nice assortment of very fine two-year-old sweet cherries. We can offer for a limited time only special bargains in fine trees. Standard sorts, our selection, three fifty per dozen. Auburn Nurseries, Queenston, Ont.

SCOTCH collie dog, 11 months old; splendid breeding. Paul Merritt, Beamsville, Ont.

STRAWBERRY Plants for Sale—All stock; prices and terms on application. E. M. Sherman, Napanee, Ont.

THREE hundred and twenty acre farm. Splendid soil, all level. Good water. Two hundred acres summer-fallow ready for seeding. Good buildings. Twenty-five dollars per acre. Suitable terms. Communicate or call: Maybery, Moose Jaw, Sask.

TO RENT—325 acres of good improved land at Wapella, Saskatchewan. Two hundred acres ready for crop. Good house and stables. Terms: Owner to receive one-third of crop delivered in granary. To rent—160 acres, three and a half miles from Town of Wawota, Saskatchewan. 70 acres under cultivation. Terms: One-third of crop delivered in the elevator. Owner will engage tenant to break balance of land, or will sell at reasonable figure. Apply: Dangerfield & Doalittle, 604 McIntyre Block, Winnipeg.

TEACHERS—All grades. Required for schools in Western Canada. Pay highest salaries. Schools opening at all times. Write to-day (now) for full particulars. Western Teachers' Bureau (established 12 years), Scott Block, Winnipeg, Man.

VETERAN land scrips wanted. Write, giving us spot cash price. Farms for sale—improved and unimproved. Write for list. Mulholland & Company, 4 Victoria St., Toronto.

WANTED—Herdsmen; single; for Shorthorns. Send references to W. H. Gibson, Huntlywood Farm, Beaconsfield, near Montreal.

WANTED—Frotter; road twelve miles an hour; about sixteen hands. J. A. Stone, Grand Ave., London.

WANTED AT THE DELHI TANNERY Hides, Skins and Furs to tan for Robes, Coats and Gauntlets Mitts, etc. Tanned soft and pliable. Never get hard. **B. F. BELL, DELHI, ONTARIO**

DIRECT TO WESTERN CANADA.

The Canadian Pacific "Winnipeg Express," leaving Toronto at 10.15 p. m., daily, carries through standard and tourist sleeping cars for Winnipeg, the Northwest and Pacific Coast. This is the only direct, through-car service to Western Canada, trains run the entire distance through Canadian territory, and the time made is considerably faster than by any other route.

QUESTIONS AND ANSWERS. Miscellaneous.

ALFALFA SEEDING—GRASS FOR MUCK LAND.

1. I have a five-acre field which had peas on last year, and which is in a very low state of fertility, the farm having been rented for a number of years before I purchased it. The said field is mostly good quality of sand, but some of it is rather light, and these light places are, consequently, in the poorer state of cultivation. The field has a natural drainage, being very rolling, sloping to the south. It was my intention to sow peas in the spring, and plow under as a green crop, and prepare the field to sow alfalfa in August. I have no manure for this field, as I wish to put all my available manure, about fifty loads, on my corn and potato lands, which is in need of it. Which is the better course to be adopted in order to prepare it for alfalfa? I purpose treating alfalfa seed with nitro-culture previous to sowing. Would it pay me to use a fertilizer? If so, what would it cost me per acre? And what kind of fertilizer would be the better to use? Would it be better to use the fertilizer before sowing the peas, if I should sow peas to turn under. I want to make sure of a good stand of alfalfa, if possible. I seeded a part of an adjoining field last year and got a good stand. It was corn and potato land the year previous. I sowed the seed alone, and purpose sowing alfalfa seed alone on the field in question.

2. What is the best sort of grass seed for muck land, with the object of getting the most hay, quality to be considered?

3. What is the best grass seed to sow with pasture as the object to be attained?

Ans.—This is one of those questions that do not admit of dogmatic reply. In the first place, there is scarcely sufficient Canadian experience with summer seeding on record to warrant its general recommendation, though some Ontario farmers have reported decided success from sowing alfalfa in July or August. Then, again, as to the peas. There can be no doubt this soil would be the better for some enrichment, and the addition of humus; on the other hand, the turning under of a green crop would tend to produce a more or less acid condition of the soil, which is inimical, if not fatal, to the nitrogen-gathering bacteria which are so necessary to the successful growth of legumes. However, this might be overcome by an application of lime worked into the soil after the peas have been plowed down. If this were our field, we should be inclined to try an experiment by sowing half the field in spring and half in early August, after a crop of peas had been plowed down. In all probability, the best fertilizer you will be able to secure is unleached hardwood ashes, applied early in spring. Use at least 35 bushels per acre, and, if the ashes have been leached, double or treble that quantity. To this add about 300 pounds per acre of fine-ground bone meal. These two fertilizers, ashes and bone meal, particularly the latter, will yield only a comparatively small proportion of their benefit the first year, the residue remaining for the advantage of subsequent crops. Then, a week or two before sowing the alfalfa seed, apply one ton per acre of air-slaked lime, or 4 tons of fine-ground limestone rock and work in well with the soil. The fertilizing indicated may seem elaborate, but we are convinced it will be found very economical in the end. With the soil liberally supplied with potash, phosphorus and lime, and the seed treated with nitro-culture to introduce nitrogen-gathering bacteria, the alfalfa plant is provided with means of satisfying all its demands, and a good crop of alfalfa is very profitable.

2. Try a mixture of eight pounds red top, three pounds timothy, three pounds Kentucky blue grass, and two or three pounds alsike per acre.

3. If a permanent pasture is desired, sow orchard grass 4 pounds, meadow fescue 4 pounds, tall oat grass 3 pounds, timothy 2 pounds, meadow foxtail 2 pounds, alfalfa 5 pounds, alsike clover 2 pounds, white clover 2 pounds, making a total of 24 pounds per acre. Seed with not more than a bushel of barley as a nurse crop. If the object is merely to

provide pasture for a year or two after cropping with hay, sow two-thirds of your usual seed mixture and add to it 2 pounds per acre each of orchard grass, blue grass and meadow fescue.

WARTS.

Please give prescription in your valuable paper to take warts off a horse's nose.

Ans.—If the warts have long necks, clip them off with scissors. If not, rub well with castor oil every day. If this does not remove them, dress them once daily with butter of antimony, applied with a feather.

BUTTER FROM SEPARATOR CREAM.

I have trouble getting butter from separator cream. Often it takes about four hours to do the churning, and then the butter comes in small grains and does not gather well. What is the difficulty?

H. G. Y.
Ans.—The fact that the cream is taken off by machine should not have any injurious effect, unless the cream is too thin. Cream for churning should test at least 25 or 30 per cent. butter-fat. Again, perhaps, you churn at too low a temperature. There is considerable difference in the churnability of cream from the milk of different cows. There is also a difference in breeds in this respect, and a marked difference in the period of lactation. The cream from one cow may be the cause of the trouble. Give the cows salt ad libitum, provide succulent feed, if possible, feed a little bran and oil-cake meal, separate a thick cream, well ripened, and churn at a temperature of 54 to 58 degrees in summer, and up to 64 degrees in winter, depending on the richness and ripeness of the cream. A temperature should be adopted that will bring the cream in not more than half an hour.

CORN PLANTING.

I have a field of nine acres that I want to plant to corn. Half of it is gravelly and the other part is loam. I want to plant one half in husking and the other in feeding corn. Which half would be best to put the corn to ripen on? What kind of seed would be best to get, and how much?

2. What value is wood ashes on land like this for corn? How much to the acre and what time is best to apply, and how? The land is not very rich. It was plowed last September. Last year's crop was half peas and half hay. Pontiac Co., Que.

A. McK.
Ans.—1. Since the crop would be likely to mature earlier on the gravelly soil, it would be advisable to devote that half to the crop from which you want seed. King Phillip, Longfellow and Compton's Early are among the best for grain production, and also do well as fodder corn. Reid's Yellow Dent, Early Leaming and White Cap Yellow Dent also are popular for ensilage purposes, and in some localities for husking. The quantity required per acre will be regulated by the variety used, the system of planting and the quality of the seed. The seed should be procured early and a test made for germination, so that in case of a high percentage of grains that will not germinate, more seed can be used. Large, plump, sound seed, is a very important factor. Sowing in drills, for ensilage purposes, about one peck per acre should be sufficient, and on squares, somewhat less. For husking, we would recommend one bushel of strong seed to six or eight acres of average soil.

2. Wood ashes are valuable as a fertilizer because of the potash, phosphoric acid and lime contained. The percentage of potash varies from 1½ up to 6 per cent., or higher. On an average, good, unleached wood ashes will contain 5 to 6 per cent. of potash, worth 5 cents a pound, or 25 to 30 cents per cwt. of ashes. The phosphoric acid and lime would represent a smaller additional value. On your gravelly soil, however, you would get much better results by first giving a liberal application of barnyard manure and working it in well. Ashes are best applied as a top dressing, simply by scattering with a shovel from a wagon. They can best be put on early in spring at the rate of about 50 bushels per acre. It should be remembered, however, that the most noticeable results are derived from growing potatoes or root crops. An application of 25 or 30 bushels as a top dressing for clover also is good.

POULTRY AND EGGS

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

BUFF Orpingtons—My hens lay eggs. February, 446 eggs from 24 layers. Incubator eggs, \$5 per 100; \$3 for 50. Special prize matings, \$1.50 per dozen and up. William Lawrence, 191 Grey St., London, Ont.

BARRED Plymouth Rock eggs for hatching from winners at Toronto, London and Guelph. A few cockerels for sale. All correspondence promptly answered. Leslie Kerns, Freeman, Ont.

BARRED ROCKS—A number of AI quality cockerels (hen hatched), bred from second-prize bird at Eastern Poultry Show, and from hens selected for their persistent laying qualities. All choice colors. W. C. Shearer, Bright, Ont.

BARRED Plymouth Rocks Eggs for hatching. One grand pen of heavy layers. Some choice cockerels for sale. Write for prices. Burton E. Post, Colpoys Bay, Ont.

BUFF ORPINGTONS—Few cockerels for sale. Eggs for hatching. Drop card for catalogue. Hugh A. Scott, Caledonia, Ont.

CHOICE Buff Wyandotte cockerels for sale. Good winter layers. \$2.50 apiece. Chas. Hardy, Mandamin, Ont.

EGGS—White Wyandottes, Martin and Massey strains, one dollar per fifteen, five dollars per hundred. Chas. E. Rogers, Dorchester, Ont.

FOR SALE—Pure-bred S.-C. White Leghorn eggs. Settings, \$1 and \$1.25. R. Hughes, Collingwood, Ont.

FOR SALE—Some choice White Wyandotte cockerels. Apply: Wm. E. Robertson, Evertown, Ont.

FOURTY Barred Rock pullets and hens for sale. Winners at Midland, Lindsay, Peterboro and Napanee. Price only 75c. to \$1.00 each. Eggs \$1 per setting. A. E. Donaghy, Colborne, Ont.

GOLDEN Wyandottes—The Beauty birds; great layers; show cockerels \$2; trios \$4; eggs, \$1 for 15. Rose-comb Minorcas, everybody's favorite. Handsome, hardy. Greatest layers in the world. Make a start in this grand breed. Cockerels and eggs for sale. Write for prices. A. McGugan, Rodney, Ont.

ARMOUTH Bronze turkeys. Show birds. Bred from prizewinning heavyweight stock. Pairs not skin. R. G. Rose, Glasgow, Ont.

ONE two-year-old Bronze gobbler (Heil's breeding); price five dollars. Also one yearling Collie bitch. J. E. Pearce, Wallace-town, Ont.

WANTED—Poultry, all varieties. Correspondence solicited. Address: C. W. Lee, Onondaga.

WHITE Rock eggs for sale, also a few cockerels. Apply to Howard Smith Winona, Ont.

WHITE Wyandotte cockerels from Martin's best pens. Prices reasonable. A. F. Post, Colpoys Bay, Ont.

TAKING AWNS OFF BARLEY.

Do you know of any quick way to take the awns off barley that has been poorly threshed?

R. G.
Ans.—We have not heard of special machinery for this purpose. Perhaps some of our readers could answer this query. It is another case of "prevention better than cure."

BLENHHEIM OR HUBBARDSTON.

Give me a few pointers as to description of the Hubbardston Nonsuch and Blenheim Pippin apples. I have two old trees. Some call them Hubbardstons and some Blenheims. I don't know which is right. They are a good-sized apple, always grow clean and free from scab. They are red and yellow in color and inclined to be flat more than long. The trees are large and wide-spreading. I want to get more trees of the same kind, and I would like to be right as to the name. G. H. B.

Ans.—Your best plan would be to send specimens of the apple to W. T. Macoun, Central Experimental Farm, Ottawa, Ont., or to J. W. Crow, Ontario Agricultural College, Guelph, Ont. If you secure catalogues from reliable nurseries, possibly you can ascertain the correct name by means of the illustrations and descriptions. Judging from the details given, we would say it is the Blenheim Pippin. Its season extends from November to February. The tree is a vigorous grower. The fruit is large, roundish oblate, with a stout, short stem, in a large, russeted cavity, and a large and very open calyx. The color yellowish, splashed with dull red on the sunny side, and also streaked and covered with deep red dots, small but distinct. The fruit of the Hubbardston is not so flat, being styled round ovate. A stem about three-quarters of an inch long is placed in a deep, narrow, russeted cavity, and the calyx is open in a ribbed basin. The ground color is yellow, almost covered with stripes and splashes of light, rich red. The season is October to February.

ROOFS THAT NEVER WEAR OUT

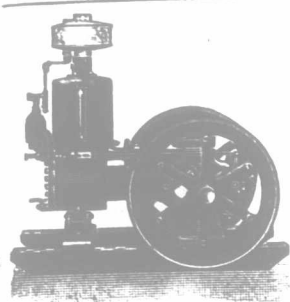
Sea Green or Purple Slate

is nature's own product—not man made. Quarried from solid rock—split into convenient form for laying, and then in its natural state ready for the roof.

SOLID ROCK CAN NOT WEAR OUT

It can't burn, rust, warp, crack, tear or decay. That's why Sea Green or Purple Slate Roofs never wear out and never require painting and repairing like all other roofing. Sea Green or Purple Slate Roofs are suitable for any building, new or old. Give perfect protection. Reduces insurance rates because spark and fire-proof. Afford clean, clear water. Not affected by heat or cold. First cost—only a trifle more than short lived roofing. Settle your roof question for all time. Don't spend more money for poor roofing. Write to us for our free book "ROOFS"—it will save you money. Give name of your local roofer. Write today.

AMERICAN SEA GREEN SLATE CO.
Box 3 Granville, N. Y.



The "Stickney" Gasoline Engine is the essence of SIMPLICITY

NO USELESS CONTRACTIONS

to get out of order and cause trouble.

NO PIPES TO FREEZE!!!

Ours is the open-tank cooling system. We defy any engine on the market to-day, that can produce a machine with so many good points. Power is guaranteed with every engine. Send for Booklet No. 57, and get wise.

Ont. Wind Engine & Pump Co., Ltd
TORONTO, ONT

"LEADER" fence Lock

Newer and Stronger

Think of the strongest lock of which you know on a woven fence and multiply its strength two fold. You then have an idea of the strength of the Leader lock—the new lock with the double grip (single grip locks have hitherto been considered good enough for woven fences).

The "Leader" is a brand new No. 9 hard steel wire fence—more durable and a better investment than ever before offered.

TAKE ORDERS FOR US

Write for money-making proposition, covering our complete line of farm and ornamental fences and gates.

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



FOR SALE:

PERCHERON STALLION

MONTPLAISANT 43361, registered black stallion, foaled 23rd May, 1905. Bred by L. E. Brown, Delavan, Illinois. Montplaisant is a horse of great substance, is 16 hands 1; will make over 1,800 pounds as a five-year old. He is perfectly sound and active, nicely gaited. Will make a great producer of heavy draft horses of great merit, and is a sure-footed getter. His sire, Black Diamond, weighed 1,900 pounds. Having no demand in this part of the country for such a heavy horse, I shall accept six hundred dollars, half his value. For further information write:

V. CHATEAUVERT, QUEBEC CITY.

GOSSIP.

An opportunity to secure high-class Shropshires is afforded on March 17th, when Joseph Fletcher, of Oxford Mills, Ont., offers by auction 90 pure-bred ewes and rams, ranging from ten months to six years old. One of the rams is imported, and most of the flock is from an imported sire, or from a ram sired by the champion at Chicago.

Robt. McEwen, of Byron, who is advertising in these columns, writes regarding his flock of Southdown sheep: "I never have been in a better position to fill a season's trade with good sheep than I am this year. The flock was reduced last year to twenty-five head of breeding ewes, half of which are imported, and each of which has proven herself a good breeder. There are in the flock a ewe from the first-prize pen at the Royal, the first-prize ewe lamb at Guelph, the first-prize aged ewe at London, 1907, and the dam of the champion wether at Guelph, 1908, and all were bred to Imp. Stetchworth Conqueror, the sire of the grand champion wether shown by Sir George Drummond at Chicago, 1907. The flock of twenty shearlings on hand is the evenest lot I have ever had, and all are thriving and in good flesh. The prospects for a good crop of lambs were never better. About half the ewes have already lambed, the lambs coming good and strong, and true to type; also coming at this season insures good growth by the time they are ready to be shipped in the fall."

In the last issue of "The Farmer's Advocate," George M. Smith & Sons, of Haysville, Ont., who have an auction sale on March 9, gave a description of their Yorkshire hogs. This week Mr. Smith writes: "We are offering a fine lot of Cotswolds. They have been shown for several years, and always ranked very high and made themselves very popular in reports. The flock was founded by two large, ideal type, long-wooled ewes, four years ago. It is plainly seen that these sheep have done wonderfully well to produce a flock of the best quality in so short a time, proved by our being able always to sell the ram lambs as show stock, keeping the best ewe lambs for our own breeding purpose to improve our flock, and which has raised it, as it is this spring. The flock consists of: One ram (Park Ram 470), Ass'n No. 49636, lambed 1908; also five ewes, weighing from one hundred and ninety to three hundred pounds, in lamb to Park Ram 470; three shearing ewes, in lamb to Park Ram 470; five ewe lambs, lambed 1908. These sheep are very heavy fleeced, measuring from eight to ten inches in length, shearing from sixteen to eighteen pounds, and well-proportioned and broad; in excellent condition. Also two Shropshire ewes, with good pedigrees, in lamb. We are also offering a good, dark-red Shorthorn bull, eighteen months old, of Geo. Amos's breeding. For Yorkshires, see "Gossip" of February 25th issue, and also the advertisement."

McNIVEN'S CLYDESDALE SALE.
At the sale of Clydesdales held on February 23, by Alex. F. McNiven, Clyde Park, St. Thomas, seven imported mares brought an average of \$338, and four foals an average of \$160. The first-prize foal at Western Fair, London, has kept going the right way, and brought \$205, from Mr. Pinkerton, Essex, Ont., and we believe she again changed ownership immediately after the sale, quite an advance. The foals were a particularly good lot, all being sired by Mr. McNiven's stock horse, Her Democrat [7018] (12187). Love Bros., Littlewood, got Clyde Park Squire [8778], a growthy, robust foal, well set on his legs, and one that should make a future winner. His dam brought the highest price in the sale, \$430. She is a fine, big, trappy mare, by Clan Stewart (11658). Rose of Powmill goes to Arkona, Ont., at \$400, and Canny Maid, three years old, to Love Bros., for \$400. This was the largest mare in the offering, and a bargain to her purchaser. They also got a great bargain in Sarah Mitchell (18218), by Baron Mitchell (10688), at \$335. She is a mare of great quality, combined with size. The gray mare, Noran Queen [11041], went to Mr. Barnes, Essex. This mare has to Mr. Barnes, Essex, and has taken first quality and action, and has taken first honors at St. Thomas Horse Show. The

price was \$300. He also took Gipsy Maid. They are both sired by the great breeding horse, Lord Fauntleroy (10370). Mr. Pinkerton, Essex, got the well-bred filly, sired by Acme (10485), at \$235. The animals possessed great action and attractiveness. The day proved very wet, thus keeping many away who would otherwise have been at the sale.

Clydesdale horses, Shorthorn cattle and Chester White swine, of a high order of merit, are offered for sale in our columns by J. H. M. Parker, proprietor of Willowdale Stock Farm, Lennoxville, P. Q. The horses are superior imported stock, and the Shorthorns include young animals of both sexes, bred from such noted sires as Joy of Morning and Broad Scotch.

Oxford Down ewes to the number of 40, from the famous prizewinning flock of Henry Arkell & Son, of Arkell, Ont., will be offered by auction on the afternoon of March 15. These animals are from imported stock, and bred to high-class, first-prize and champion imported rams. Half of the lot offered is made up of yearlings, while none have passed their prime. Pedigrees will be furnished with the animals. All must be sold, without reserve, to make room for others.

Live-stock advertisements in "The Farmer's Advocate" bring results. C. W. Barber, of Gatineau Point, Que., writes: "We have had a good demand for Clydesdales since the New Year. Baron Elrig, by Baron's Pride, and out of a mare rich in Darnley blood, goes to T. A. Hand, of Hazeldean, Ont. He was second in a strong class of three-year-olds at the recent show in Ottawa, being beaten only by the winner at the Toronto Show. Mr. Hand is to be congratulated on securing a horse of such good breeding and individuality, and he should prove a valuable acquisition in the district to which he goes. We are this week shipping two stallions and four mares to customers in Manitoba. We have yet two stallions rising three years for sale, both prizewinners here and in Scotland."

TRADE TOPICS.

FREE VETERINARY ADVICE.—The manufacturer of Absorbine says: "If you have a case of lame, blebbed, or sick horse, write me to-day. I am always glad to assist my customers by giving free veterinary advice. Absorbine has been successful in curing many cases of thoroughpin, bog spavin, strained tendons, cocked ankle, lymphangitis ringbone, lameness, etc. W. F. Young, P. O. F. 73 Monmouth St., Springfield, Mass. Canadian Agents: Lyman Sons & Co., 380 St. Paul St., Montreal, Que."

DO YOU WANT THESE BOOKS?
Everyone thinking of going out West should read the free booklets, "Settlers' Guide" and "Western Canada," published by the C. P. R. They contain a mine of information regarding the Northwest, crop figures, lands for sale, farming notes, good maps, freight and passenger rates, and particulars of settlers' train service during March and April. Apply at once for copies to local agent, or direct to R. L. Thompson, District Passenger Agent, C. P. R., Toronto.

MODERN POTATO HARVESTING.—It is not long since potato-growers looked forward to "digging time" with dread, because of the hard labor connected with getting in the crop by hand. The news of the invention of a machine for this work was received with an interest that became genuine after the manufacturers had proven that the device was really practical. That it has long since passed the experimental stage, and is now absolutely necessary on every farm where potatoes are grown in quantity, is witnessed by the large factory of the Hoover Manufacturing Company, which is devoted exclusively to the manufacture of potato-harvesting machinery. Details of trial offer, together with literature describing their various potato diggers, pickers and sorters, may be obtained upon request to the Hoover Manufacturing Company, Box 33, Avery, Ohio.

ALFALFA SEED

Or Lucerne Clover

Are you going to seed down a field with this valuable forage plant?

YOUR SUCCESS

greatly depends on the seed you select. Our "Gold" Brand, we honestly think, is the best of last season's crop. It is a large, bright,

PURE AND CLEAN

seed, grown in Montana, the most northern State in U. S. A. It is therefore best suited for our climate. Sow 20 lbs. per acre.

BUY NOW.

Present price, \$13 per bus., f.o.b. Toronto. Bags, 25c. each.

PRESENT PRICES FOR OUR BEST RED CLOVER, ALSIKE and TIMOTHY:

"Sun" Brand Red Clover, \$ 7.75 bus.
"Ocean" " Alsike " 11 00 "
"Diamond" Brand Timothy, \$3.25 "

PURE. CLEAN. THE BEST.

ASK FOR SAMPLES.

SEEDS For the Farm For the Garden

SEND FOR CATALOGUE.

Geo. Keith & Sons
124 King St., East,
TORONTO, ONTARIO.

CANADIAN-GROWN SEEDS

For Farmers and Market Gardeners

DEVITT'S EARLY SUGAR CORN

Originated by Ben. Devitt, Esq., of Waterloo, about 30 years ago, and steadily improved by him.

It is the table corn par excellence—just what you gardeners want for your select trade, the sweetest of all, very early—white kernels and good size ears. We are the only seed men in Canada growing on their own fields vegetable, flower and field seeds. It is of vital interest to you.

FREE PACKAGE.

Write for complete catalogue and free package of Devitt's Early Sugar Corn; also give names of your neighbors.

ONTARIO SEED COY.,
Pioneer Canadian Seed Growers,
37 King St. Waterloo, Ont.

BROOKS' NEW CURE FOR RUPTURE!

Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lymphol. No ties. Durable, cheap. Pat. Sept. 10, '01. SENT ON TRIAL. CATALOGUE FREE.

C. E. Brooks, 9789 Brooks Bldg., Marshall, Mich.

Friend—Poetry is a drug on the market, isn't it? Poet—I should say not. Friend—Then I am misinformed. Poet—Your informant probably never tried to sell poetry or to buy drugs.

NEGLECTED SCALD CAUSED MONTHS OF AGONY.

Spent Dollars in vain, but Zam-Buk Cured Her.

Following, we give the testimony of a lady who, if she had known of Zam-Buk earlier, would have been saved nine weeks of agony:

Mrs. Frederick Bryant, of 169 Railway avenue, Stratford, Ont., says: "I scalded my foot while preparing supper. Next day the skin came off and my foot was in a serious condition. I could not wear my shoe, and had to lay up for nine weeks. During this time I used dozens of salves, but none did any good, in fact the wound developed into a running sore. I got no rest day or night from the pain. At this point a supply of Zam-Buk was obtained and a few applications had immediate effect in soothing the pain and irritation. A small supply proved sufficient to heal the scald, although I had spent dollars in other remedies. New skin has now formed nicely over the open sore."

"Zam-Buk is the most wonderful and effective remedy I have used, and I advise others to use it."

Zam-Buk is equally effective in curing burns. Mr. Geo. Gilmore, caretaker of the E. Clements Block, Winnipeg, testifies as follows: "I sustained a series of bad burns while attending to the large furnace which heats the buildings. One burn on my wrist was particularly bad and gave me great pain. I applied some Zam-Buk, and in forty-eight hours all that remained of the burn was a slight scar. Zam-Buk seemed to take the pain away like magic. It is a splendid balm to keep handy, its healing powers being simply marvellous."

There is nothing to equal Zam-Buk as a family balm. Its uses are so wide. It has been proved a sure cure for eczema, ringworm, ulcers, abscesses, piles, bad leg, suppurating wounds, cuts, bruises, chapped hands, cold cracks, and all skin injuries and diseases. Rubbed well into the part affected, it cures rheumatism, sciatica, neuralgia, etc. All druggists and stores sell at 50c. per box, or post free from Zam-Buk Co., Toronto, on receipt of price.

ESTABLISHED 1850.

SEEDS that SATISFY

We quote for early orders:

Regal Red Clover	-	\$ 7.50 bushel.
Regal Alsike Clover	-	10.50 "
Regal Lucerne Clover	-	11.50 "
Regal Timothy	-	3.00 "

Cotton Bags, 25c. each.

The above brand is our best grade of seed, and complies with the conditions of the Seed Control Act.

FREE.—Write for our handsomely-illustrated 100-page catalogue of vegetable, flower and farm seeds, bulbs, plants, poultry supplies, garden implements, etc.



SEED BARLEY In 1908 field competition won by 9 1/2 parts over county, and Mandshou. Very clean, hard, strong straw. One dollar per bushel. S. D. J. CAMPBELL, Fairview Farm, Wexford, Ont.

QUESTIONS AND ANSWERS. Veterinary.

WORMS.

Three year-old colt is not doing well. Last summer I noticed him passing large white worms, and lately I have noticed him passing more. I have given him oil and turpentine without results.

A. L. S.

Ans.—The worms are doubtless the cause of the unthriftiness. Take three ounces each of sulphate of iron, sulphate of copper, tartar emetic and calomel. Mix, and make into 24 powders. Give a powder every night and morning, and a few hours after the last has been given, administer a purgative of eight drams aloes and two drams ginger.

CAPPED HOCK—UNTHRIFTY COLT.

1. Horse has capped heel.
2. Three-year-old colt is not thriving well.

Ans.—1. I presume you mean capped hock, as there is no such condition as "capped heel." The enlargement is very hard and tedious to remove. Get a liniment made of 4 drams each of iodine and iodide of potassium and 4 ozs. each of alcohol and glycerine. Rub a little well into the tumor once daily.

2. Give him a laxative of 1 pint raw linseed oil. Take 3 ozs. each of sulphate of iron, gentian, ginger and nux vomica. Mix and make into 24 powders, and give a powder three times daily. Repeat the course of powders as often as necessary. Feed liberally on good hay, rolled oats and bran, and give a few raw roots, and give him regular exercise.

Miscellaneous.

LOW-GRADE FLOUR FOR HORSES—CONDITION POWDER.

1. Would you consider low-grade flour and ground oats, mixed, one of flour to two of oats, good to feed working horses?
2. What is a good, cheap condition powder for working horses?

J. S. K.

1. Horsemen do not speak highly of low-grade flour for feeding. Oats, and a little bran, form a more satisfactory ration. What is known as dark feeding flour contains the germs of the grains, and so is rich in protein. Some authorities recommend it for horses at hard work, to be used as part of the grain ration.

2. An excellent condition powder for working horses is clean, wholesome hay and oats, carrots or turnips once or twice a week, and pure water. This, along with the exercise, should keep them in good condition. If a tonic is required, use the following: Two ounces each of ferric sulphate, pulverized gentian, pulverized nux vomica, and nitrate of soda. Mix, and give a teaspoonful night and morning in ground oats or bran. Also give two or three times a week, a feed of boiled oats, and to the regular grain ration add some oil cake, which is laxative and aids digestion.

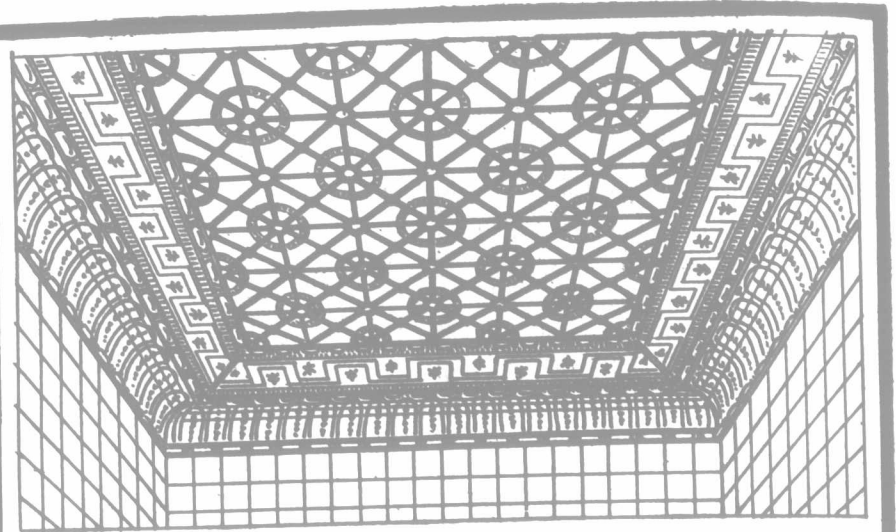
TRADE TOPIC.

SEEING IS BELIEVING.

A United States agency that is selling books has a man who ought to write folders. Here is a sample:

"A tour of the world! What a fascinating prospect these magic words conjure up! A tour of the world! The first enchanting glimpse into the lands that lie beyond our doors; the mingling with entirely new peoples; the viewing of strange scenes and customs; the phenomenal mind-broadening effects; the liberal education it conveys. Perhaps you have longed many times to make this marvellous trip yourself, only to be obliged to dispel the idea because of business, health, family ties, or the question of finances. Is this so?"

Our answer to the question is, call upon any ticket agent of the Canadian Pacific Railway, get the tickets, and see the things as they are, instead of staying at home and thinking how they may be. One thing is certain, wherever you want to go, whatever part of the continent or of the world, no company can take you as far, or look after you as well, as the C. P. R.



Why should you use Plaster, Wood or Wall Paper when you can get

METALLIC WALLS AND CEILINGS

Build of metal and you build for a lifetime.

Build of metal and you build for health.

Build of metal and you build for safety.

Our Metallic Walls and Ceilings are made from pickled, cold rolled and close annealed steel plate—each part subjected to a pressure equal to 500 tons. This means strength with light weight.

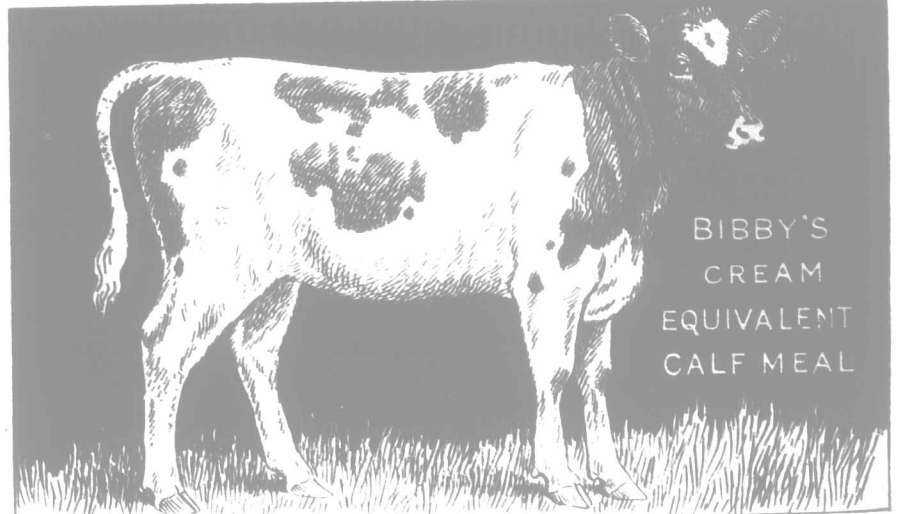
No cracking or dropping off like plaster. No danger of arsenic poisoning as with wall paper. No expense every year for repairs.

Tell us just what size your rooms are—and we will tell you what it will cost.

Rich, tasteful, artistic designs in hundreds of patterns to choose from. Samples of designs sent free on request.

METALLIC ROOFING CO., LIMITED
MANUFACTURERS
TORONTO AND WINNIPEG

59



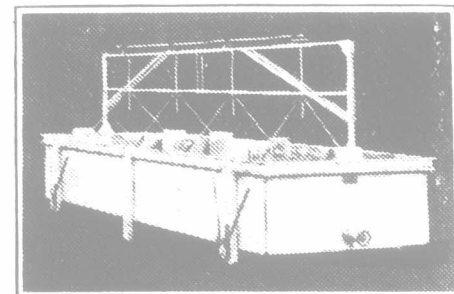
BIBBY'S
CREAM
EQUIVALENT
CALF MEAL

THRIFTY GROWING YOUNG CALVES

BIBBY'S CREAM EQUIVALENT—A perfect substitute for new milk. Bringing calves and young pigs up to first-class condition. Preventing scouring and other ailments. Made in England. Sold in Canada by all dealers, or direct from

WM. RENNIE COMPANY, TORONTO, ONT.

Steel Equipments for Cheese Factories



PAT. AUG. 14, 1906.

THE STEEL TROUGH & MACHINE COMPANY, Ltd, Tweed, Ontario.

HAVE YOU SECURED ONE OF "THE FARMER'S ADVOCATE" PREMIUMS

MARCH 4, 1909

QUESTIONS AND ANSWERS. Veterinary.

SPAVIN.

Sixteen-year-old mare is lame from spavin. My veterinarian fired and blistered it twice, and he is still lame. Will she get better, or will she have to be fired again? J. W. A.

Ans.—It is not possible to say whether she will recover, as some cases do not. I do not think another firing advisable. There is an operation which consists in severing a tendon that passes over the front of the hock, that will sometimes cure when firing fails. V.

LAME MARE—WORMS.

Three weeks ago I drove a three-year-old mare fifteen miles and back in one day. Since then she has gone lame in one hind leg when trotting fast, but walks and jogs sound.

2. She has worms. Will this cause lameness? H. O. W.

Ans.—It is not possible to locate the seat of lameness without more definite symptoms, or a personal examination, hence treatment would be simply guesswork. I am of the opinion the trouble is muscular, and due to the long drive. Thirty miles in a day is too far to drive a three-year-old, unless she has been gradually fitted for it. It is probable if you allow her to have comparative rest; that is, simply give her a little slow exercise daily for a few weeks, she will recover.

2. Worms will not cause lameness. Take three ounces each of sulphate of iron, sulphate of copper, calomel and tartar emetic. Mix, and make into 24 powders. Give a powder every night and morning, and after the last has been given, administer a purgative of eight drams aloes and two drams ginger. V.

SORE FEET.

Seven-year-old driving mare has sore feet. Her hoofs are dry and hard and are becoming contracted, and she appears very stiff in fore limbs. J. M.

Ans.—The mare has navicular disease, and while treatment will ease the symptoms, there is little hope of a permanent cure. The proper treatment is to remove the shoes, pare the heels well down and blister the coronets. Clip the hair off all around the hoof for two inches in height, make a blister of 2 drams each of biniodide of mercury and cantharides, and mix with 2 ozs. vaseline. Tie so that she cannot bite the parts. Rub well with the blister once daily for two days. On the third day apply sweet oil and turn in box stall. Oil every day, and as soon as the scale comes off blister again. After this blister every four weeks as long as you can allow her to rest. When put to work again, apply bar shoes, and keep the feet soft by poulticing or tubbing, and stand in a box stall with clay floor. If you cannot give rest, all that you can do is to apply poultices or water to soften the feet, and stand on clay, and when the snow disappears wear bar shoes. V.

TREATMENT FOR SIMPLE OPHTHALMIA.

Our local veterinarian, in treating a case of simple inflammation of my mare's eye, gave a bottle of dark-colored fluid to inject into the eye, and a yellowish salve to apply to the eye to allay pain. As I always try to inform myself on how to know and treat diseases, I would like to have the prescriptions for these mixtures. Will you kindly give them to me? G. D. McM.

Ans.—There are many preparations used successfully in the treatment of such cases, the treatment in many cases depending upon the stage of the disease, and the symptoms presented. I do not know what your veterinarian used, and would not do violence to professional etiquette by telling you if I did. It is quite probable he will tell you if you ask him, but if he does not care to do so, he is quite justified in refusing, as it costs him both time and money to acquire his knowledge, and it is by that knowledge he expects to live. While in these cases we are willing to advise treatment for any disease, the symptoms of which are plainly given, we do not feel it a liberty to comment upon or divulge the treatment followed by others, even if we know.

Farmer Stout learns about seeding right

"Ran across one o' these school-taught farmers at the Toronto Exhibition last summer. Got talkin' about growin' wheat in Ontario.

"He claimed that the Ontario farmers lost more than a million dollars last year alone, simply because the seeding was done wrong. I laughed at him.

"Well," says he, "you just figure it out when you git home; and," he says, "here's some facts that'll help you figure right." Well, sir, I figured. And I got my eyes opened,—you bet I did.

"Got 'em opened wide enough to see I needed a Cockshutt Disc Drill; and I've got one now. Look here:

"I'd had what I counted a real good seeder. But the closest plantin' it could do was seven inches apart. The Cockshutt plants six inches apart—and doesn't use any more seed to the acre. D'ye realize what that means?

"It means anywhere from two to five bushels more yield an acre with any kind of grain!

"Now, when you come to know that Ontario seeded 821,766 acres to wheat last year, and when you come to figure what even two bushels more an acre mean—in cold cash dollars—

"That school-taught lad wasn't so far out, was he? 'Twould have meant just about 640,000 bushels more Ontario-raised wheat in one year—not to speak of all the other grains.



"Quite a difference between six-inch drills and seven-inch ones, you see. I'm letting the other fellows do the seven-inch seedin' nowadays. The Cockshutt way is good enough for friend Stout.

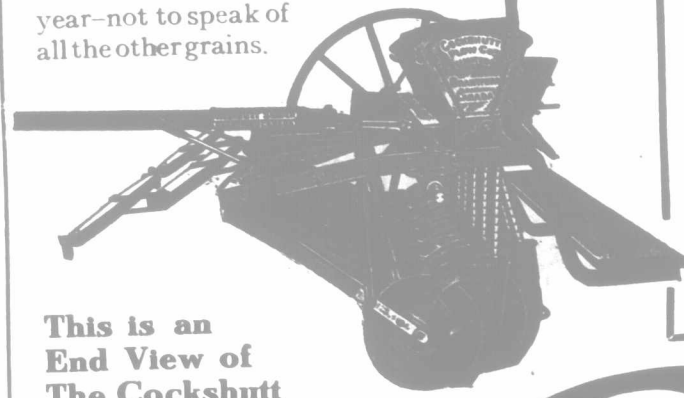
"Good enough for me anyway, seeing that I've got a drill in this 15-disc seeding machine of Cockshutt's that draws lighter than any ten-hoe drill I ever saw; and never clogs; and is dead sure to plant any kind of drilled seed right, every time.

"Good enough for me, because it pays me better to own a Cockshutt Disc Drill than to seed any other way. I can't see why it wouldn't pay you, too."

THE Cockshutt New Disc Drill seeds accurately any drill-planted crop, and works as perfectly with flax seed as with beans because of its positive force-feed. It is built extra strong, with a rivetted frame of high-carbon I-beam angle steel. The Discs will not clog on the trashiest ground; the grain will be sowed right even in wet and sticky soils. The Cockshutt chain-drive of hardened steel, with the direct centre draft from the discs, insures easy running and the lightest possible draft, with the minimum of friction. The axle bearings are fitted with compression grease cups (all other such machines use merely oil) that no grit nor dust can work into nor any lubricant work out of. You ought to read the booklet quoting actual experiences of practical farmers with this drill; it will prove to you that this is the drill that's ten years ahead of all the rest in practical value to any farmer. Please ask for illustrated details—address as below.

THE COCKSHUTT LINE OF IMPLEMENTS

built right to farm right, includes not only more than 120 styles of plows—ranging from light garden plows to huge 12-furrow engine gangs—but also all styles of seeders, cultivators, and harrows. Write us for details of the kind of implements the business farmer ought to buy.



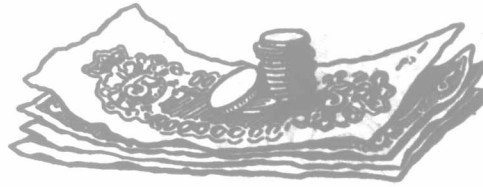
This is an End View of The Cockshutt New Disc Drill

Made in 13 and 15-Disc Models for Ontario

COCKSHUTT PLOW COMPANY LIMITED of Brantford Dept. B

Make it a rule to deposit a certain portion of your salary with us each pay day. In this way you will, before long, accumulate enough to go into business for yourself and be your own boss. 3 1/4% interest on deposits of \$1 and upwards.

Agricultural Savings & Loan Co. 109 DUNDAS STREET, LONDON, ONTARIO



TOWER'S FISH BRAND WATERPROOF OILED GARMENTS are cut on large patterns—designed to give the wearer the utmost comfort LIGHT-DURABLE CLEAN AND GUARANTEED WATERPROOF BE SURE THE QUALITY YOU BUY MEETS THE SIGN OF THE FISH TOWER CANADIAN CO. TORONTO CAN

TRADE TOPIC. TOURIST SLEEPING CARS TO THE WEST.

For a thoroughly comfortable trip to Winnipeg, any point in the Northwest, or the Coast, reserve a berth in a Canadian Pacific tourist sleeper, leaving Toronto daily at 10.15 p. m. Cost of a roomy berth is but \$4.00 to Winnipeg, \$5.00 to Moose Jaw, \$6.00 to Calgary, \$8.50 to Vancouver. They are fine vestibuled cars, well lighted, heated and ventilated. Berths are furnished with bedding, linen changed daily, every convenience is provided, and an attentive porter in charge. See nearest C. P. R. agent regarding berths, which should be secured well in advance of date of leaving.

MORE AND BETTER CIDER

from less apples and more juice from less grapes are produced with our presses than with any other press made. The extra yield of juice soon pays for the press. A

HYDRAULIC CIDER PRESS for custom work in your locality will prove a money-maker. Various sizes, hand or power. 25 to 400 barrels per day. Presses for all purposes. Also Steam Evaporators, Apple-butter Cookers, and Gasoline Engines Fully Guaranteed. Catalog FREE.



THE HYDRAULIC PRESS MFG. CO. 10 Lincoln Ave. MT. GILEAD, OHIO

HAVE YOU SECURED ONE OF "THE FARMER'S ADVOCATE" PREMIUMS



16 POINTS in the Selkirk Stiff Stay Fences and Gates possessing Undeniable Superiority.

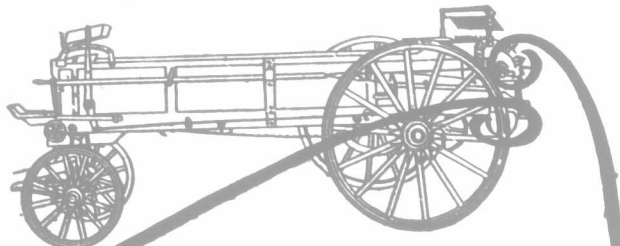
Selkirk Fence Agents make money and build business. Selkirk Fence Users get the best value for their money and are satisfied customers.

We will send you full particulars on receipt of the following coupon properly filled out.

Selkirk Fence Company, Hamilton, Can.
 I would like to know more about the Selkirk Fences and Gates. Send me a free sample piece of the fence and literature on the Points of Superiority with Agent's terms.
 Name.....
 P. O..... Province.....

"Success" Light Draft Roller Bearing Manure Spreader for 1909 is greatly improved

Just go to the Paris Plow Agent in your locality and examine the New 1909 "Success" Manure Spreader. You'll have no doubts about which machine to purchase after you've seen it and noted the improvements for 1909.



The drawing below illustrates the New Gear Case enclosing the Apron Driving Mechanism. The case is cut away so that you can see the Worm and Gear, which run in oil. This case not only prevents all "leakage-waste" of oil but is dust-tight, too. This oil-tight, dust-proof case around Worm and Gear makes the apron driving mechanism of the "Success" the smoothest and easiest-running, lightest-draft on any manure spreader. And as the Worm and Gear are so fully protected against wear they are rendered practically indestructible.

The bottom drawing shows Beater with Roller Bearing at end of Beater shaft. There is also another Roller Bearing at other end of Beater Shaft. These two bearings make the "Success" Beater a marvel for smooth and easy running—and materially decrease the draft. There are three other sets of Roller Bearings on New 1909 "Success." (Any Paris Plow Agent will show them to you). Their use lessens the draft of "Success" by at least one horse.

The large Black Teeth shown on ends of Beater are the Harpoon Teeth. These Harpoon Teeth cut up the long pieces of straw that would otherwise wind around the end of the beater and clog it up. And this is just another draft-decreasing feature found on no spreader but the "Success."

But just see the "Success," and note all its superior features. That's the right thing to do before making your choice of a manure spreader.

THE PARIS PLOW CO. LIMITED.

PARIS ONTARIO

Western Agents: The John Deere Plow Co., Ltd., Winnipeg, Regina, Calgary and Edmonton. Agents for Quebec and Maritime Provinces: Frost & Wood Co., Ltd., Montreal, Quebec, St. John, N.B.

Please Mention this Paper.

GOSSIP.

EIGHT HIGHEST JERSEY RECORDS.

The Jersey record in year's authenticated test has been so often broken of late that the following resume of the eight highest yearly records may be of interest to breeders:

NAME OF COW.	MILK.		FAT.		85% BUTTER.	
	Lbs.	oz.	Lbs.	oz.	Lbs.	oz.
Jacoba Irene	17,253	8.2	952	15.4	1,121	2.0
Adelaide of Beechlands	15,572	1.6	849	10.0	999	8.9
Rosalie's Olga 4th's Pride	14,104	13.6	886	15.8	984	11.0
Financial Countess	13,248	2.4	795	4.6	935	10.0
Olive Dunn	9,990	4.0	671	13.8	790	7.0
Peer's Surprise	14,452	3.2	658	9.8	768	15.0
Emma's Rowena	10,383	10.0	688	4.0	750	14.0
Magyarland's Temisia	10,419	4.0	688	1.3	750	10.0
Average	13,170	6.7	754	8.8	887	11.7

TRADE TOPICS.

ROOFING SELECTED BY GOVERNMENT. Among the articles required by the United States Government in providing shelter for the stricken of Messina, owing to the recent earthquake, was ready roofing material. An order was placed with the Barber Asphalt Paving Company, who have an advertisement in this issue, for over two hundred thousand square feet of Genasco Ready Roofing for direct shipment. This order was promptly filled, and the roofing dispatched to complete homes for the homeless. The choice of the Government in selecting Genasco Ready Roofing for the purpose, is a glowing tribute to the merits of this roofing. In a case like this it was also highly important, for international reasons, to provide the best that could be secured, as showing the quality of the presents which the United States gives, and the excellence of the products of its own manufacture. This is one of the many cases where the frankness of the Barber Asphalt Paving Company, in making known the composition of Genasco, has stood them in good stead, and demonstrates clearly that their product has won the confidence of not only the public generally, but of the shrewd and exacting representatives of the Government itself.

SETTLERS' TRAINS TO THE NORTH-WEST.

The Canadian Pacific Railway will run special trains for settlers going West with live stock and effects, leaving Toronto at 10.15 p. m., every Tuesday in March and April. Colonist cars will be attached, and trains run by Canadian Pacific direct time-saving route, no changes, delays or customs examinations. Settlers travelling alone and with their families, should use regular passenger trains, leaving Toronto at 10.15 p. m., daily. By doing so, and paying a small charge for berths, they will have the added comfort of the journey in a tourist sleeper. "Settlers' Guide," free pamphlet, giving full particulars and rates, may be obtained of nearest C. P. R. agent, or direct from R. L. Thompson, District Passenger Agent, Toronto.

Nitrate of Soda

(Plant Food)

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Don't Paint The Roof

All the expense of painting a roof may be saved by covering it with

Brantford "Crystal" Roofing

—and the cost will be one-third less than for wooden or metal shingles

You certainly owe it to your pocketbook to learn more about this wonderful roofing. You should have a sample. Then you can test the flexibility and toughness of Brantford "Crystal" for yourself—and see with your own eyes its time-defying Surface of Rock Crystals. A surface that cannot be improved upon for weather-and-fire-proofness. A surface that needs no painting at the start and never will, as rock crystals cannot dry out, crack, freeze, or melt—practically indestructible.

Sample, and big roofing book, will be mailed FREE as soon as we hear from you, which should be by next mail.

Brantford Roofing Co.

Limited
 Brantford, Canada

FITS CURED For proof that fits can be cured, write to Mr. Wm. Stinson, 134 Tyndall Ave., Toronto, Ontario. For pamphlet giving full particulars of simple home treatment, 20 years success. Over 1,000 testimonials in one year. Sole proprietors: Trench's Remedies, Limited, Dublin.

QUESTIONS AND ANSWERS. Miscellaneous.

COVER FOR BINDER.

How can I make a waterproof cover for binder? A. W. M. Ans.—A satisfactory cover is made by painting ordinary canvas with raw linseed oil. A standard mixture frequently used is made as follows: Add to every three pints of boiling water two ounces of yellow soap. When dissolved, stir in one quart of boiled linseed oil. When this has cooled, stir in 1/4 pint of brown japan as a drier. If black oilcloth is wanted, add some lampblack.

USES FOR POPLAR.

1. Is there any industry in which poplar lumber could be utilized? 2. Would it be advisable to use poplar studding for partitions in a house? H. H.

Ans.—1. The wood of the various poplars is used for paper-pulp, also in box manufacturing, in cooperage, for the heads of barrels, and for various purposes where it does not come into contact with soil or weather. Poplar is not very durable for outside work. 2. I see no reason why poplar could not be used for studding for the partitions of a house. It is also frequently used for rough sheathing. E. J. ZAVITZ.

POTATOES FOR HOGS.

Is there any difference in the feeding value of different varieties of potatoes—for instance, between the McIntyre and American Wonder? The McIntyre is more palatable to hogs, but the American Wonder is more productive—it will turn out fifty bushels an acre more than the McIntyre. E. MCF. P. R. I.

Ans.—In regard to the relative feeding value of McIntyre and American Wonder potatoes, it is difficult to secure any definite information. There should not, however, be much difference. Moreover, few farmers would be inclined to grow potatoes exclusively for pigs. Mangels or sugar beets can be more cheaply raised. As a rule, only the refuse potatoes are fed, and so one should grow those that he can sell best, irrespective of whether the pigs care for them or not.

SCRATCHES.

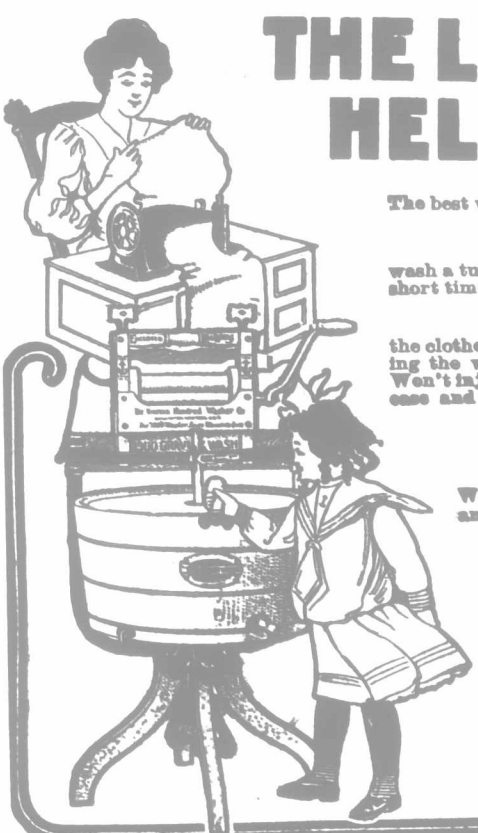
I purchased a mare a short time ago badly out of sorts. Her legs swelled, and were very scurfy and cracked (have very heavy hair on them). I purged her with aloes, followed with nitrate of potash, twice a day, for several days; made lotion for legs, of sugar of lead and sulphate of zinc. Now, I would like to give some of Fowler's Solution of Arsenic, but do not know how much for a dose, or how long to continue it. C. H.

Ans.—The dose of Fowler's Solution of Arsenic is one to one and a half ounces, twice daily for a week. In this case, improvement could be effected by applying warm poultices of linseed meal, with a little powdered charcoal added, renewing the poultices every six or seven hours for a couple of days and nights, and then applying the oxide of zinc ointment, to which is added 20 drops carbolic acid to the ounce. Do not wash.

PROTRUSION OF VAGINA.

I have a valuable two-year-old Ayrshire heifer, which is due to freshen in June. She puts out what appears to be her calf-bed when she is lying down. Can anything be done for it? NEW SUBSCRIBER.

Ans.—It is not the uterus, but the lining of the vagina that protrudes before calving. All that can be done to relieve the situation is to raise the floor of the stall where the hind feet stand, so that the hind parts of the cow are higher than the front. This can be done by laying down a few short pieces of plank with one end on a piece of timber, spiking the planks to the floor at one end, and to the timber at the other, and keeping the floor well bedded with litter from the horse stable or with straw. As a rule, the cow in such case calves safely, and without any after trouble. In extreme cases a plaited rope truss is used, to prevent the protrusion, the ends being tied in a sarcircle, but this is rarely necessary.



THE LITTLE FOLKS CAN HELP MOTHER WASH

The best washer is always the easiest to work. A child can run the "1900 GRAVITY" WASHER wash a tubful of clothes in six minutes and the garments will be cleansed better in that short time than a strong woman could do it by hand in an hour or more. NO RUBBING, PULLING OR TEARING the clothes remain stationary, while the tub swings to and fro, up and down, thus swishing the water in every direction and squeezing it through the meshes of the clothes. Won't injure the finest laces and lingerie, yet will wash heavy blankets and rugs with ease and rapidity.

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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 OWED IT. Then if it doesn't do all we claim for it, ship it back AT OUR EXPENSE. This proves our faith in this machine. IT COSTS YOU NOTHING to find out how IT PAYS FOR ITSELF. Shall we send you a "1900 Gravity" Washer on a month's free trial? Or, if you want further information about the BEST Washer on the market, write to-day for our handsome booklet with half-ton illustrations showing the methods of washing in different countries of the world and our own machine in natural colors—sent free on request. Address me personally F. A. D. BACH, Manager THE 1900 WASHER CO., 355 Yonge St., TORONTO, CANADA 790



For Roofing, Siding or Ceiling

GALVANIZED RUST PROOF IRON

POSITIVELY THE BEST AND MOST LASTING COVERING MADE. Requires no painting. Economical and easy to put on; no previous experience necessary. Absolutely guaranteed. Brand new, clean stock. Bright as a dollar. Sheets are full size. Comes in Corrugated, "V" Crimped, Standing Seam or Plain Flat Sheets. Heavily galvanized on both sides with the most approved galvanizing material that will adhere forever. "Galvanized" means that the iron has been coated with liquid zinc, which makes it absolutely rust and weather-proof; not affected by heat or cold. Makes buildings warmer in Winter and cooler in Summer. Drains perfectly and does not soak. Does not taint rain water. Fire and lightning-proof. Makes your insurance cheaper. Sold direct from our own roofing factory—the largest in the world. Chicago House Wrecking Co. sells more roofing material than any other concern. We sell thousands of squares of "Galvanized Rust-Proof Iron" every week. Used in all climates. For every kind of building. PAINTED STEEL ROOFING AT \$1.25 PER HUNDRED SQUARE FEET.

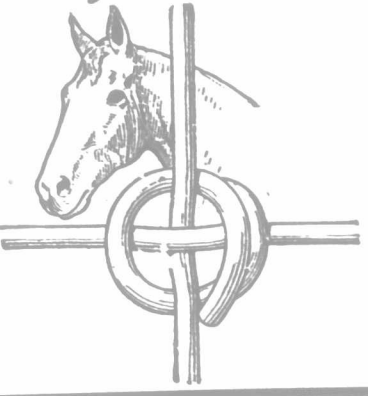
Also in stock a full line of painted Steel and iron Roofing, Siding and Ceiling, all styles at prices from \$1.25 per 100 sq. ft. up. Fill in the coupon below. We will send you samples free of charge together with a vast amount of FREIGHT PREPAID PRICES, roofing information. On application we quote ROOFING SUPPLIES OF EVERY KIND FREE OUR 500-PAGE CATALOG NO. 645 it is full of information for the shrewd, careful and economical buyer. Lists thousands upon thousands of rare bargains and other forced sales, are plainly described in this book. Send coupon below and get a copy free. FREE BOOK OF PLANS! If you are going to build or improve, we will send you free, our book of plans, containing many illustrations and descriptions of modern residences, farm homes, barns, etc. It will put you in touch with the worst and most desperate situation in the lumber market. Contains thousands of money saving offers. FREE SPECIAL FURNITURE CATALOG! Showing Rugs and Linoleum in their natural colors and designs. We save you from 20 to 60 per cent. We Buy Our Goods at Sheriffs', Receivers' and Manufacturers' Sales CHICAGO HOUSE WRECKING COMPANY 35th and Iron Streets, Chicago, Ill. We Can Save You Money On Wire and Fencing.

FREE SAMPLE COUPON NO. Kind of building _____ Size of Roof _____ If you want Siding or Ceiling give diagram and full dimensions _____ When do you expect to order _____ Name _____ P. O. _____ R. F. D. _____ State _____ Chicago House Wrecking Co. 35th & Iron Sts., Chicago

Monarch Stiff-stay Fence.

THE FENCE WITH NO HIDDEN WEAKNESSES.

Why do you see so many broken fence wires? Nine times out of ten they are the result of hidden weaknesses—weaknesses the purchaser was unaware existed. These weaknesses are result of inferior grades of wire—unduly kinked laterals—severely-applied locks. By severely-applied locks we mean locks driven directly over the place where stay



and strand wires cross. This tremendous direct pressure bruises and injures the wires—this is quite apparent if you remove the lock, and is sufficient to make the wires an easy prey to frost, snow or heavy strains.

Now, in the Monarch, the lock is applied diagonally with the strand, which means there is no pressure applied at the crossing. And the ends of lock are neatly hooked over the strand wires. Thus the Monarch lock is prevented from spreading or loosening. And the fence is made of best grade No. 9 Hard Coiled Wire. Also, there is no undue kinking of laterals.

No hidden weaknesses in the Monarch fence. It will stand the most severe tests of weather, animal or man. Catalogue free if you'll ask for it.

The Dillon Hinge-stay Fence.

MORE AGENTS REQUIRED.

It's impossible to bend the stays of the Dillon. They are hinged to the strand wires. They give or swing under pressure, and spring back to original uprightness when pressure is removed. The hinges cannot slip along the laterals, as the laterals are crimped at the intersection. A series of coils in the strand wires amply provides for contraction and expansion. The Dillon Hinge-stay Fence is not alone unique, but positively unsurpassed as a lasting fence investment. It is made in both medium and heavy weights. Shall we send you our complete fence catalogue, describing both the Dillon Hinge-stay and Monarch Stiff-stay Fences, also ornamental fences and gates? It contains fencing facts you'll be glad to know about.

The Owen Sound Wire Fence Co., Limited, OWEN SOUND, ONTARIO.

Energentic men will find our line of fencing and gates the best-selling on the market. No other agents have two such superior and different fences as the Monarch and Dillon. In comparison with other agents, our representatives have double the chances of securing an order. Just write for agency particulars.

Monologue



The EDISON PHONOGRAPH

is an entertainer which comes into your home for a small price and makes all kinds of vocal and instrumental music available.

By means of the AMBEROL RECORDS, Mr. Edison's newest invention, a great many other kinds of music, monologues, dialogues and other things are available for the Edison Phonograph which have not before been used in a talking machine.

Hear the Edison Phonograph and the Amberol Records at your nearest dealer's, and make arrangements with him for obtaining them at once.

FREE. Ask your dealer or write to us for illustrated catalogue of Edison Phonographs, also catalogue containing complete lists of Edison Records, old and new.

We Want Good Live Dealers to sell Edison Phonographs in every town where we are not now well represented. Dealers having established stores should write at once to

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RENNIE'S

PURE, CLEAN

Best XXX Clover

IN SEALED BAGS. PRICE VERY LOW TO-DAY.
Ask your dealer or write us direct.

WM. RENNIE CO., TORONTO.

SEEDS

QUESTIONS AND ANSWERS. Miscellaneous.

COW KILLED ON RAILWAY.

Some time last September I turned my cows out to the woods to get water. I was busy harvesting late that day. The cows did not come home. I could not find them. The next morning I found them on the railroad track, and one of them killed by train the evening before. The railroad goes through my farm, in the clear part of it, and they did not get on the road on my place; but east of my farm the road goes through wilderness lands, and has gates on the different lots. Some of these lots are not occupied, and it is supposed that my cows got on the track through one of those gates. I can't say which way they got there.

1. Have I a claim for damages?
2. If not, why not?
3. If a claim, how do I proceed?

P. E. J.

J. M. D.

Ans.—We cannot see that you have such a claim as would warrant your going the length of bringing an action against the railway company for damages for the loss of the cow. There are several objections to such a course; but one important difficulty in your way is in respect of the matter of proof. We think you would fail on the evidence available. It might be well, however, to try diplomacy, and we would suggest your instructing a solicitor to negotiate for you with the company. But whatever is to be done toward obtaining compensation for your loss ought to be attended to without more delay. Promptness in a case of this sort is most advisable.

LITERARY-SOCIETY DISPUTE.

I noticed an article in your issue of February 4th, relating to the Literary Society. It reminds me of a slate with reading on both sides. You read one side, but you do not know what is on the other side until you turn it over. The same in this case. You only got one side, and not all of it then. This literary society was organized as usual in the regular way, appointed their officers as usual, and had about 14 members to start with. The second meeting night, being very stormy, there was no turn-out and no business done whatever, and before the next meeting night, which would be in two weeks, the majority of those few members took it upon themselves to have a little doing among themselves out of the proceeds of last year's society; and at the next meeting took in a bill for oysters, etc., which they got passed before admitting any more new members. Scarcely any person knew about this supper.

1. Was it legal for those few members to take this money and spend it without bringing the subject before a meeting and getting it on the minutes?

2. Could those few members sell an organ and other articles belonging to this society without calling a meeting to do so? The society had no intention of disbanding or making any dissolution whatever. These articles were bought by the old society. To show you that this society had no intention of disbanding, inside of four meetings there are about 75 paid-up members.

3. Are not such articles got in this way a sort of trust for the benefit of such a society, which is gotten up from year to year?

4. Can these parties be made to put this money back in the treasury?

Ontario

A CRITIC.

Ans.—Our answers to these legal questions are necessarily based solely upon the statement of facts accompanying such questions and published therewith. Going upon the statement which you furnish, and which is printed above, we would answer your questions in their order as follows:

1. No.

2. No.

3 and 4. We do not quite see that those who supplied the money for the purchase of the articles in question are legally partners in respect of such articles, and a majority of such partners could effect a legal sale and divide the proceeds between all the partners. If they failed to duly make such division they could be sued for an accounting and payment over.



A Nervous Wreck Now in Robust Health.

Mrs. M. E. Harron, of Newton, Ont., writes: "I must say our son would have been in a consumptive's grave long ago had it not been for PSYCHINE. He was taken down with La Grippe and a severe cold. His whole system was weak, including his lungs, which were seriously affected, as is always the case after La Grippe."

"After taking several remedies and treatments we procured PSYCHINE, and tongue cannot tell the marvellous results brought about in two months. He gained over twenty pounds in weight, and strength and appetite returned."

Mr. Harron himself is most emphatic as to the beneficial result of using PSYCHINE. He declares, "To-day I am in splendid health and have never been sick a day since I took PSYCHINE."

PSYCHINE is the greatest tonic known to medical science. It builds up the system and tones up every organ of the body, enabling it to resist and throw off disease. Weak nerves cannot exist where PSYCHINE is used consistently. Send for a trial bottle and prove the truth of these statements.

PSYCHINE is sold by all druggists and dealers, 50 cents and \$1.00 a bottle.

PSYCHINE
PRONOUNCED SY-KEEN
THE GREATEST OF TONICS FOR HEALTH AND ENERGY

Mrs. A.—I can remember the day when you begged me to say the word that would make you happy for life.

Mr. A.—I know—but you said the wrong word.

ONCE MORE FROM THE GREAT WEST

Comes Evidence of the Great Work
Dodd's Kidney Pills are Doing.

Cyrille Maginel Cured of his Rheumatism and Diabetes by the old Reliable Kidney Remedy.

Findlay, Man., March 1st.—(Special).—Cyrille Maginel, a well-known farmer living near here, furnishes further evidence of the great work Dodd's Kidney Pills are doing in the West.

"I suffered from rheumatism and diabetes," Mr. Maginel says, in telling the story of his cure. "My sleep was broken and unrefreshing, and I was tired and nervous all the time. I was treated by a doctor, but he failed to cure me. Reading that Dodd's Kidney Pills were good for brick sediment in the urine, led me to try them, and after using twelve boxes I am as well as I can possibly be. Dodd's Kidney Pills have made a new man of me and I am thankful."

Dodd's Kidney Pills are no cure-all. They cure sick kidneys, and that is all that is claimed for them. But sick kidneys are the root of numerous diseases caused by impure blood. For you can't have pure blood with sick kidneys. It is the work of the kidneys to strain the impurities out of the blood. Dodd's Kidney Pills cure diabetes because it is a kidney disease; they cure rheumatism because it is caused by sick kidneys failing to strain the uric acid out of the blood.

QUESTIONS AND ANSWERS. Miscellaneous.

MORTAR FOR CEMENT BLOCKS.

Which is it best to use, cement or lime mortar in building cement-block siloes? If cement, what proportion? T. D.

Ans.—Either mortar can be used. A mixture of cement and lime mortar is generally advised, because it can be worked more readily and a finer joint made. First prepare cement mortar, using one of cement to three of sand. To this add one-third ordinary lime mortar and mix well. If it is desirable to maintain uniform color of cement blocks and mortar, add two pounds of lamp-black for every barrel of lime in the mortar.

MAKING CEMENT FLOOR ROUGH.

Would a cement floor be liable to chip and crumble if I took a stone hammer or chisel and nicked it over the top to make it rough? I find mine is so slippery the horses cannot start a load on it without slipping and losing their footing. O. C.

Ans.—If the cement floor has been thickly coated with a strong mixture of high-grade cement there would be little danger of it crumbling, but it would be very difficult to make a good job with a hammer or chisel. Perhaps the best way to provide a suitable rough surface on cement is to sprinkle it over with medium fine shale or gravel before it has set. The use of a light roller will cause the tiny stones to set more firmly.

GRAIN IN DRILLS OR BROADCAST.

Give me some information as to which will give the best results: grain sown with a disk drill with disks 7 inches apart, or with the disks 6 inches apart, or broadcast? The same quantity of seed sown per acre in each case. A. W. M.

Ans.—A great deal depends on the nature and condition of the soil, and on the weather conditions that prevail throughout the season. As a rule, perhaps, you would obtain most satisfactory returns from the intelligent use of disks six inches apart. There would, however, be very little difference between this system and that with the disks seven inches apart. On rich, mellow soil probably the latter would suit best. On land that has been thoroughly cultivated, broadcast seeding is satisfactory if the moisture supply is ample during spring and early summer, provided the seed is well covered.

FARMING ON SHARES—LINE FENCING.

A owns a farm, and his two sons, B and C, agree to work it on shares, both sons being of age. All three work together, B and C getting 4 each, while A gets 4 of the profits.

1. If B or C work out for a few days, how should the money be divided? Should A get the half while the sons get only one-quarter?

2. B goes away and allows for his time. How should the money be divided between A and C?

3. A bought a farm in 1902. The deed calls for 60 acres, more or less. A, finding he was short, called on a surveyor, so the disputed line was moved several feet over on his neighbor. A then wants to know what proceedings he can take to get B to put up his share, as the fence is going down on the old line. B's deed only called for 40 acres. Ontario. A. E.

Ans.—1. If the son so working out is willing, and consents to his wages being divided, the division suggested is, we think, the proper one.

2. A should receive one-half of the total represented by the time B is away and allows for, and C one-quarter—B retaining, of course, the remaining quarter.

3. If A cannot come to an agreement with B in respect of the fencing to be done, he should call in the fence-viewers of the locality, and have the matter decided by them under and pursuant to the provisions of the Line-fences Act (Revised Statutes of Ontario, 1897, Chap. 287, and amending acts).

Our 1909 Model

Wear STEEL SHOES!

Absolute Protection Against
Colds, Rheumatism, Stiffness, Discomfort
No More Blistered, Aching Feet
GOOD-BYE to CORNS and BUNIONS!



Pat. Dec. 4, 1906. Others pending.

Three to Six Times More Wear Than the Best Leather Shoes You Can Buy!

These wonderful shoes actually save at least \$5 to \$10 of your shoe money every year. They're the strongest work shoes in existence. If you wear Steel Shoes you will never suffer from sore, blistered, aching, feverish feet. Nor will you catch cold or get rheumatism or stiff joints. For these comfortable, steel-bottomed shoes with waterproof leather uppers keep your feet so warm and dry that you can work in the worst kind of weather without danger of "catching cold." You can work, dry shod, in soft mud or wade in water, for they are as waterproof as rubber boots. But, unlike rubber boots, Steel Shoes don't heat or sweat the feet. Nor do they get water-soaked, warped and twisted, for light, thin steel soles compel the uppers to keep their shape.

FREE
Write for book, "The Sole of Steel" or order a pair of Steel Shoes on blank below.

STEEL SHOES are Health and Money Savers!

The Saving in Doctors' Bills Alone Much More Than Pays for Them

No Colds! No Corns! No Repairs! No Leaks! No Slipping! Just SOLID COMFORT!

Throw away your old rubber boots—your rough, hard, twisted, shapeless leather shoes—and wear Steels instead. Then you will not be troubled with sweaty, blistered, tired, aching feet or tortured by corns and bunions.

How Our 1909 Model Steel Shoes are Made

The soles and an inch above, all around the shoes, are stamped out of one piece of special fine, thin, seamless steel. This sole is as light as a leather sole and so much stronger that there is simply no comparison.

It gives the best foot protection of any shoe on earth. It is studded with Adjustable Steel Rivets, which give you a sure footing and save all wear on the sole. When Rivets become worn, you can replace them instantly with new steel rivets. 50 Extra Steel Rivets cost but 30 cents and will keep your shoes in repair for at least two years.

The uppers are made of the best quality of soft, pliable, waterproof leather that money can buy. They are double thick where riveted to the steel bottoms and reinforced at the seams.

Comfortable Hair Cushions

The thick, springy, Hair Cushions or Insoles inside the shoe absorb all the perspiration and odors. You can easily take out, clean and dry the Hair Cushions each night. These Cushions prevent the jars of walking and keep corns and callouses from forming.

Not only will Steel Shoes give greater foot comfort than you have ever known before, but they will pay for themselves over and over again in the saving of medicine and doctors' bills.

They Take the Place of Rubber Boots

A man who wears Steel Shoes doesn't have to own three different styles of working shoes. No arctic or felt boots necessary.

Rubber boots keep the feet hot and sweaty and make them very tender. They are positively injurious to health. Steel Shoes, with waterproof leather uppers, give you the same protection as rubber boots, without sweating your feet. One pair of Steel Shoes will outwear at least three pairs of rubber boots.

See How Much Cheaper Than Leather Shoes!

Made in Sizes 5 to 12—6-in., 9-in., 12-in. and 16-in. High

Our \$2.50 Steel Shoes, 6 inches high, are better than the best \$3.50 all-leather shoes.

Our \$3.00 Steel Shoes, 6 inches high, of extra fine leather, are better than the best \$4.50 all-leather shoes.

Our \$3.50 Steel Shoes, 9 inches high, are better than any \$5.00 all-leather shoe made.

Our \$5.00 Steel Shoes, 12 inches high, are better than all-leather shoes that sell for \$6.00.

Our \$6.00 Steel Shoes, 16 inches high, are worth more than the best all-leather shoes you can buy at any price.

One pair of Steel Shoes will outwear from three to six pairs of all-leather shoes.

"Steels" are the Workingman's Favorite

These shoes (either the \$3.50 or the \$3.00 pair), give the best possible service for general use. We cannot recommend them too highly.

Order a Pair—Sizes 5 to 12

Money Back if Not O. K.

Send us \$3.00 for 6-in., or \$3.50 for 9-in. pair of Steel Shoes, state size shoe you wear, and we will send you, by express, the best and most comfortable work shoes you ever slipped on your feet.

You are perfectly safe in sending to us for a pair of Steel Shoes, as we agree to refund your money promptly and freely if you are not satisfied when you see the shoes. The editor of this paper will tell you we are thoroughly reliable. Money cannot buy better working shoes than either the \$3.00 or \$3.50 style. You get more foot comfort and health protection, longer wear and greater satisfaction in a pair of Steel Shoes than money can buy elsewhere. So why not send for a pair today?

ORDER BLANK FOR STEEL SHOES

Steel Shoe Co., Dept. 83, Toronto, Can.

Gentlemen:—

I enclose _____ for \$ _____

in payment for _____ pair Steel Shoes, size _____

Name _____

Town _____ State _____

County _____ R. F. D. _____



Think Only of Permanency

When buying fencing FORGET about the NOW cost. Do as the railways. Think only of PERMANENCY. Select the fence with the quality, weight, stiffness and strength to give longest service. And three or four years from now you will shake hands with yourself because you were shrewd enough to see eye to eye with the railways and buy IDEAL woven Wire Fence.

This Lock makes "IDEAL" FENCE Strongest in Existence

No fence has a simpler lock than the IDEAL. Yet the railways have proven to their entire satisfaction that the IDEAL lock has the greatest gripping-tenacity. Other things being equal, the impossible-to-release grip of this simple lock makes IDEAL fence strongest in existence. But other things are not equal. IDEAL Woven Wire Fence has the best quality of hard drawn elastic steel wire laterals. It has the stiffest uprights. The galvanizing is the smoothest and heaviest—most rust-proof. The scales prove IDEAL the weightiest woven fence. What further reason do you need to prompt you to buy IDEAL fence? Well, here is another: IDEAL Fence will cost you no more than other fences that you will not buy if you think only of permanency. Our fence and gate booklet shows different styles for horses, cattle, hogs, etc. Write for your copy.

JOIN OUR STAFF OF AGENTS and increase your income. The weight, quality and strength of IDEAL fence make it easiest to sell.

THE MCGREGOR-BANWELL FENCE CO., LIMITED, WALKERVILLE, ONT.

FOR SALE BY AUCTION

AT FARNHAM FARM, ARKELL, ONT.,

40 Registered Oxford Down Ewes,

ON MONDAY, THE 15TH OF MARCH, 1909, AT 2 O'CLOCK SHARP.

The following valuable animals, bred to our first-prize and champion imported rams, which are themselves either by imported rams or sons of imported rams, 20 of them are yearlings, and the rest in the prime of life. They are a good lot, and will be sold without reserve to make room for others. This is a rare chance to get high-class sheep. Pedigrees will be furnished with each animal.

TERMS—\$10 and under, cash; over that amount, 9 months' credit on approved notes. Five per cent. discount per annum for cash. Guelph, G. T. R., five miles from the farm. Arkell, C. P. R., right at the farm.

JAMES McDONALD, Auctioneer.

Henry Arkell & Son,
ARKELL, ONTARIO.

DISPERSION AUCTION SALE

Of Pure-bred SHORTHORN CATTLE, the Property of Fitzgerald Bros., Mount St. Louis, Simcoe Co., Ont., on

TUESDAY, MARCH 9TH, 1909

CONSISTING OF 54 HEAD.

40 females and 14 bulls, including herd bull, Roan Lord =65155=, of the Roan Lady family. Such bulls as British Statesman (imp.), Diamond Jubilee (imp.) and Loyal Duke (imp.) have been used in the herd. Sale will commence at 1 p. m. Conveyance will meet trains at Coldwater and Phelps on G. T. R., on day of sale, and at Craighurst, on C. P. R., on night before and day of sale. Terms: Ten months' credit will be given on furnishing approved joint notes; 6 per cent. discount off for cash. We are also offering to lease our farm for a term of years; it consists of 550 acres, 350 first-class farm land, balance pasture and timber land. A lunch will be provided. Catalogues on application. Long-distance phone, Elmvalle Central.

J. K. McEwen,
Auctioneer.

FITZGERALD BROS., Mount St. Louis, Ont.



90 Choice Shropshire Sheep

AT AUCTION

On Lot 8, Con. 7, Township Oxford, Co. Grenville, Ont., on

MARCH 17, 1909, at 1 P.M.

Joseph Fletcher, Oxford Mills, Kemptville Station, on C. P. R., will offer for sale ninety pure-bred Shropshire sheep—rams and ewes (one ram imported), from ten months to six years old. All three years old and under sired by imported ram, and all ewes over one year supposed to be in lamb by either an imported ram or a ram sired by the grand champion ram at Chicago World's Fair. Terms: Seven months' credit, without interest, on approved joint notes, or 5 per cent. off for cash.

Joseph Fletcher, Prop., Oxford Mills P. O., Ont.
D. C. Haley, Auctioneer.

Important Dispersion Sale

OF

AYRSHIRES

The property of MR. D. A. JAMES, Dorchester, Ont., will be held at the farm, 1 1/2 miles West of Dorchester Station, G. T. R., on

TUESDAY, MARCH 16, 1909.

This herd comprises 29 females and one bull, and has been bred from the best stock obtainable. The progeny has made excellent showing in "Records of Performance." There will also be sold some Grade Live Stock, Horses and Farm Implements. TERMS: \$10 and under, cash; over that amount, six months' credit on bankable paper. Six per cent. per annum off for cash.

SALE WILL COMMENCE AT 12 O'CLOCK NOON.

Messrs. Dibb and Lindsay,
Auctioneers.

D. A. JAMES, Prop.
Dorchester, Ont.

WE RECOMMEND TO YOU THE RELIABLE AND ECONOMICAL ST. MARYS GASOLINE ENGINE

For general use on your farm or in your mill.

Built in many styles, for different fuels and uses, in sizes from 4 h.-p. to 400 h.-p.

Has many new, original features, and is equipped with The New Milton Auto Ignition System. (Eliminates batteries.)

Let us know your needs. We will advise you free.

A. W. PARKS & SON, PETROLEA, ONTARIO.
GAS AND GASOLINE ENGINE EXPERTS.

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**Wanted as
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\$75 to \$150.

Study a few hours a day for eight to ten weeks, and we guarantee to assist you in getting a position on any railway in Canada. We teach and qualify you by mail. Write us for booklet and full particulars.

The Dominion Railway School, Dept. F., Winnipeg, Manitoba

QUESTIONS AND ANSWERS.

Miscellaneous.

TRANSMISSION OF POWER.

What per cent. do you consider lost in transmitting power to line shaft by a bevel gear instead of belting from engine or power directly?

YOUNG FARMER.

Ans.—This question is not answerable, unless all details and conditions are known.

KEEPING BEEF IN SUMMER.

Give good recipe for keeping beef for summer use.

J. J.

Ans.—The usual way of curing beef for summer use is to corn it. Make a brine of salt and cold water strong enough to bear up a potato, and add to it a little saltpetre—2 ounces to a barrel of beef will be quite sufficient, as even a little too much will make the beef hard. Boil down the liquid in proportion, say from 3 pailfuls to 2 pailfuls, then lay the beef in the brine. Turn occasionally for two or three weeks, when the beef will be ready for use. Brine of this strength will keep the beef sweet all summer; if only needed for a shorter time it is not necessary to boil down. A small quantity of beefsteak may be kept quite sweet as follows: Fry the beef a little more than for ordinary use when fresh; lay the slices in crocks, and cover completely with melted lard.

LOSS OF POWER IN TRANSMISSION—SMALL VS. LARGE MOTORS.

1. How much power would be wasted in forcing 15 h.-p. over one mile of branch line, i.e., from the main wire to my farm, a distance of one mile?

2. How much is wasted when one horse-power is used?

3. Is a small motor more economical on power when a small amount is being used than a large motor, say, 20 h.-p. motor for generating 5 h.-p. vs. a 7 h.-p. one?

4. Which would be best, a 15 h.-p. motor or a 20 h.-p. one for a man needing about 10 to 15 h.-p.?

Ans.—1. It depends on the size of wire and the voltage of transmission. With a No. 6 copper wire (about 4 inches diameter), at 500 volts, the loss would be 21.5%. It would require 18.1 horse-power to give you 15 horse-power.

Lines are generally strung on a basis of 10% allowable loss. A No. 3 wire (.239 inches in diameter) would give a loss of 10.7%, and a No. 2 wire (.258 inches or a shade over 1/4 inch in diameter) 8.5%. If the voltage were higher the loss would be less on the same wires; if lower, the loss greater.

2. The loss on the wire for 1 h.-p. would be 1/15 of the loss for 15 h.-p.

3. No, the larger motor is the more economical.

4. The 20 h.-p. motor.

WM. H. DAY.

FLAXSEED JELLY FOR CALVES

Am feeding a number of young calves separator milk, and want to substitute something for the butter-fat.

1. What would be the best, whole flaxseed, oil cake or flaxseed meal?

2. What amount per calf would you start with?

3. How would you prepare it—that is, would you mix it raw with the milk or boil it first?

4. How long would you feed this before substituting oatmeal?

D. R.

Ans.—The best substitute for butter-fat, to be fed along with skim milk, is flaxseed jelly, prepared by boiling flaxseed in water until a thick jelly-like consistency has been attained. Stir this into the skim milk. Commence with a very little, and as the separator milk is substituted for whole milk, gradually increase the amount of flaxseed jelly until each calf receives about a cupful to each feed. Continue this as long as the skim milk is fed, or for six months at any rate. Meantime, a mixture of bran, oat chop and corn meal may also be allowed in increasing quantities, commencing with a pinch thrown in the pail after the milk has been drunk. Meals, especially coarse and starchy ones should not be mixed with the milk, but flaxseed jelly may be safely fed in this way, and with very satisfactory results, although for calves under a month or two, a small proportion of whole milk should be added to the separator residue.

YOUR DANGER BEGINS WHEN YOUR BACK ACHES.

It is the First and the Sure Sign of Kidney Disease.

Doan's Kidney Pills

cure the aching back by curing the aching kidneys beneath—for it is really the kidneys aching and not the back.

They act directly on the kidneys and make them strong and healthy, thereby causing pure blood to circulate throughout the whole system.

Mrs. Frank Foos, Woodside, N.B., writes:—"I was a great sufferer with backache for over a year, and could get nothing to relieve me until I took two boxes of Doan's Kidney Pills and now I do not feel any pain whatever, and can eat and sleep well; something I could not do before."

Doan's Kidney Pills are 50 cents per box or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The Doan Kidney Pill Co., Toronto, Ont.

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For Pumping, Cream Separators, Churns, Wash Machines, etc. **FREE TRIAL**
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A handsome book, called "Homes, Healthful and Beautiful," showing many stylish schemes for using Church's Cold Water Alabastine, will be mailed free to you on request. Let us hear from you by next mail.

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It Won't Rub Off

The Alabastine Co., Limited 3 Willow Street, Paris, Ontario

QUESTIONS AND ANSWERS.
Miscellaneous.

SIZE OF SILO—YIELD OF CORN.

We are going to put up two silos this coming summer, round wooden ones. The first one is to be 22 ft. high and 13 ft. across, and the other 10 ft. across and 22 ft. high. How many acres of an average crop of corn will it take to fill each of them, and how many tons will each hold?

H. B.
Ans.—The first silo, filled, well settled and refilled, would probably hold 50 to 55 tons; the other about 30 tons, or perhaps a little better. We would strongly advise building at least 26 feet high, even if the diameter of the one had to be reduced to ten feet. An average crop of ensilage corn in Ontario, according to official reports, is about 12 tons to the acre, but a good crop should run 15 to 18 tons, and yields of 20 tons and over have been obtained. Taking a yield of 15 tons, your two siloes of the size you proposed would hold the product of about six acres.

SETTLING FOR GOODS.

1. A is a farmer; B a local agent. B by chance sold A an article which he was not accustomed to selling, nor had any signed contract to do so. B and A bargained verbally. B wrote a firm to ship to A's address the goods in question. The firm shipped goods in A's name. A took delivery of goods and paid freight on same. Later on A found that goods were not just what he ordered. A could not get B to come near or do anything. A then communicated with firm. The firm sent several communications to B about the trouble, but B paid no attention. The firm then took the matter up and made A's goods satisfactory, and A was ready to settle. The firm approached A for settlement for goods, and at that point B showed up and also demanded settlement. Has A to settle with B or firm?

2. What is really required to authorize agents to sell and collect cash, or take settlement on same?

CONSTANT READER.

Ans.—1. With B.
2. Generally speaking, there is no particular formality requisite. The relation of principal and agent may be created in very many ways, and the fact of it may be notified to a third party, or to the public, also in a variety of ways. In the case you state, however, it would seem that B was really a principal rather than an agent.

PEA BRAN VS. PEA MEAL.

Would you please publish in your valuable paper the feeding value of pea bran compared with pea chop, as there are two mills in this neighborhood at which it can be bought?

D. S. & S.
Ans.—From analyses made at the Ontario Agricultural College and published in Bulletin 138, on "The Composition of Ontario Feeding Stuffs," we glean the following average comparison:

	Crude Protein	Ether Extract	Soluble Carbohydates.
Pea meal.....	23.27	1.90	54.62
Pea hulls or pea bran.....	10.04	1.44	36.01

From this it will appear that the pea meal contains over twice as much protein (the most important element) and about fifty per cent. more carbohydrates and fat than the pea hulls or bran. It is, however, worthy of note that one sample of pea meal ran as low as 16.97% protein, this being attributed to its containing a considerable proportion of hulls. It is suggested that weevilly peas may be abnormally low in protein. As a general thing, the pea bran is more variable in composition than the pea meal, the average of 13 analyses of the bran indicating a variation in protein content from seven to thirteen per cent. The author of the bulletin remarks that "pea bran is not entirely useless, and might, under certain conditions, serve as a useful component in a maintenance ration." It is not a very valuable feeding stuff, and owing to the variability in its composition should not be purchased except at a low price. Send to the Department of Agriculture, Toronto, for copy of the bulletin mentioned above.

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 imitated. Easy to use, only a little required, and rear 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.

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SAVE THE HORSE'S SPAVIN CURE

REG. TRADE MARK

BINGHAM BROTHERS COMPANY
Manufacturers of "MACHINE" PAINTERS' ROLLERS.
408 Pearl St., New York.

The Troy Chemical Co., Binghamton, N. Y.:
We have a valuable truck horse which could not be replaced short of \$100, which developed a ringbone. The veterinary surgeons had tried all their knowledge without result, excepting to succeed in laying the horse up. For the purpose of "calling your bluff" in your advertising we purchased a bottle of "Save-the-Horse" Spavin Cure, and following the directions diligently with the result that the ringbone has entirely disappeared and the horse is no longer lame, has picked up flesh and today is in just as good condition as any horse could be, and it would be impossible for one who has not known to determine on which leg the ringbone had been. The writer, being a lover of horses, is giving you this testimonial for the purpose of passing his experience along to other owners.

BINGHAM BROTHERS CO.,
HUBERT E. BINGHAM, Pres.
Valton, Ky.

I think you have the best on the market. I cured a very valuable horse of two very bad splints and thoroughpins with your "Save-the-Horse," purchased of Dow's Drug House, Cincinnati, Ohio. Very truly,
J. E. ROGERS, Detroit, Mich.

\$5.00 a bottle with signed guarantee or contract. Send for copy booklet and letters from business men and farmers on every kind of case. Permanently cures Spavin, Thoroughpin, Ringbone (except low), Curb, Splint, Capped Hock, Windfall, Heel, Injured Tendons and all Lamenesses. No wear or loss of hair. Horse works as usual. Dealers or Express Paid. Troy Chemical Co., Binghamton, N. Y., and 160 Van Horn St., Toronto, Canada.

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FREE A 100-page illustrated book by Dr. S. A. Tuttle. A guide for every emergency. It's as good as having a Veterinary to have this book and **Tuttle's Elixir** for external and internal use for the many common horse ailments. Don't experiment. Get Tuttle's and be sure. Write for book.

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FOR SALE: IMP. HACKNEY STALLION, St. Regulus (252) 9000

Color chestnut. Very superior action. Age 7 years. Sure stock-getter. Any desired information cheerfully furnished. Apply to:
JAMES BLACKBURN, CREEMORE, ONT.

MR. A. I. HICKMAN
Court Lodge, Egerton, Kent, England, exports pedigree live stock of every description to all parts of the world. During the spring months the export of light and heavy horses will be a specialty. Breeders should write and learn how to get in right. Mr. A. I. Hickman will be at the Bell Hotel, Gloucester, Eng., during the week of the Royal Show, and will be pleased to meet all foreign and colonial visitors there.

FOR SALE: Three Registered Clydesdale Stallions, rising four years old, also one registered brood mare, in foal to imported sire, four years old. One of these stallions is imported, others Canadian-bred. All three good heavy ones, with lots of quality. Apply to: **R. T. Brownlee, Hemmingford, Que.**

Dr. Bell's Veterinary Medical Wender cures inflammation of lungs, bowels and kidneys. The 20th-century wonder. Agents wanted in every county. Write for terms.
DR. BELL, V. S. Kingston, Ont.

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Dr. McTaggart's vegetable remedies for the liquor and tobacco habits are healthful, safe, inexpensive home treatments. No hypodermic injections, no publicity, no loss of time from business, and a cure certain.
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CUSTOMERS FROM NEWFOUNDLAND TO B. C. WRITE US.

Yes, we ship DIRECT to customers the best Trees, Ornamentals, Roses, Shrubs, Small Fruits in verity we can grow. Send for our priced catalogue.

Mr. Parsons, of Newfoundland, writes us: "Box trees received in excellent condition. Well PLEASED."

Mr. Hill, B. C.: "We have the 1,348 trees all planted, and must say they are the finest lot of trees I have seen from any nursery. Mr. Harry is much pleased with his trees and wants more."

Yes, we can please you, too, if ordered at the **CENTRAL NURSERY** in good time. TRY US.

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Harrow While Plow

Make one job out of the two, and get your ground in finest condition by harrowing when the soil is first turned up.



Kramer's Rotary Harrow Plow Attachment

Attaches to any gang or sulky and levels, pulverizes and makes a mulch of the "moist soil" that is not possible after the ground dries and "sets." Draft only slightly heavier—you'll be surprised to see how little. A great time and labor saver. Quick Canadian Shipments. Stock now carried at Winnipeg, Regina and Calgary. No Custom House or other delays. Write for catalog No 65

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Warranted to Give Satisfaction.

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Has Imitators But No Competitors.
A Safe, Speedy and Positive Cure for
Curb, Splint, Sweeney, Capped Hock,
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Puffs, and all lameness from Spavin,
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Cures all skin diseases or Parasites,
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Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism,
Sprains, Sore Throat, etc., it is invaluable.
Every bottle of Caustic Balsam sold is
warranted to give satisfaction. Price \$1.50
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press, charges paid, with full directions for
its use. Send for descriptive circulars,
testimonials, etc. Address:
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RADIOL TREATMENT
Prolongs the life of a horse's
legs. Completely removes by
radiation all soft swellings that
disfigure and lame a horse, as
Sprained Tendons, Windgalls,
Bog Spavins, Capped Elbow,
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**No Blister; No Laying Up;
No Hair Removed.**

RADIOL TREATMENT fines down
a worn horse's legs, and is a
certain cure for puffy joints and
Sprains, Frenchie, Filled Legs.

An intelligent use of the "RADIOL
LEG WASH" counteracts that daily
wear and tear of the legs unavoid-
able with the horse in constant work, whether
training, racing or on the road.

One flask of "Radiol" will make a
gallon of valuable leg wash.

6 Mar., 1908.
Dear Sir,—I have found Radiol very effec-
tive in reducing capped hocks and similar
enlargements on horses' legs, and I, there-
fore, consider your claim that it is a neces-
sary stable requisite quite genuine.
Yours faithfully,
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A BOG SPAVIN, PUFF or
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ABSORBINE

will clean them off permanently, and
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\$1 bottle. Reduces Varicose Veins, Var-
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Clydesdale Stallion for Sale or Exchange.
Have two Clydesdale
stallions, 7 and 8 years old, with registered pedigrees;
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stallion or gilt. Standard-bred stallion or other stock.
VAN LUVEN BROS., Moscow P.O. and Station,
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Shires, Shorthorns and Lincolns
We are now offering eight specially good young
bulls, richly bred, and will be priced right; also a
dozen heifers. Some choice young Shire fillies.
And Lincolns of both sexes.
John Gardhouse & Sons, Highfield, Ont.
Weston Station.

QUESTIONS AND ANSWERS.

Veterinary.

KICKING MARE.

Mare kicks in the stable and hurts her
legs. I have put chains on her legs
without results. R. M.

Ans.—This is a habit, and does not in-
dicate disease. Pack a bag very full of
hay and suspend it from the ceiling, so
that when she kicks she will hit it with
her hocks. The bag when it rebounds
will strike her on the hips. This will
probably frighten her at first, but she
will soon connect the kick and the fright
and will probably cease kicking. It is
probable the habit would cease without
mechanical device if you kept her loose
in a box stall. V.

UNTHRIFTY COW.

Cow has good appetite and milks well.
She is well fed, but is thin and rough-
coated. She groans while lying down
or getting up or moving around. She
has no cough. Do you think she has
tuberculosis? A. W. L.

Ans.—There are no indications of tuber-
culosis. I do not think she has any dis-
ease. The fact that she is milking
heavily accounts for her not gaining in
flesh, and the groaning is probably a
habit that lazy cows acquire. It would
be well to try the effects of tonics. Take
equal parts sulphate of iron, gentian,
ginger and nux vomica, mix and give a
tablespoonful three times daily. If she
is constipated, give a laxative of 2 lbs.
Epsom salts and 1 oz. ginger. V.

OEDEMA.

Five weeks ago a 22-year-old mare,
while being driven, began to sweat very
freely without apparent cause. I took her
home. In about a week she swelled all
over the body and under the body, as
well as head and neck. She is not bet-
ter yet, and when exercised she sweats
very freely. She is a light mare, and
not in foal. G. K.

Ans.—This is a form of erysipelas.
Purge her with 8 drams aloes and 2
drams ginger. Feed bran only for 12
hours before and 24 hours after admin-
istering purgative. Follow up with 3
drams nitrate of potash and 1 dram
iodide of potash three times daily. Feed
on good hay, crushed oats and bran and
a few raw roots. As soon as her bowels
regain their normal condition after the
purgative, give regular, slow exercise. V.

COSTIVENESS IN CALF.

I herewith give you a remedy for cos-
tiveness in a suckling calf. We have
had them so bad they refused to suck,
and would just lie around as if they were
dying, before we knew what was the
matter, but now, since we tried this, we
have no more trouble. Give about one
pint of warm milk right from the cow,
and one tablespoonful of common baking
soda, half teaspoon of ginger; shake well
and give as a drench. Repeat if neces-
sary.

Here also is a cure for diarrhea in cat-
tle. Give dry bran, half gallon at a
meal, and take all roots away from
them. Give them only some chaff, and
the bran for two or three meals. It is
a simple but effective cure.
Waterloo Co., Ont. N. HAID.

[Note.—In the treatment for constipation,
viz., sweet milk, baking soda and ginger,
there is nothing of the least laxative na-
ture. This dose would act as a nutri-
tive and tonic, and in cases of indiges-
tion in calves, where there is a tendency
to bloating, the baking soda would tend
to neutralize the gases and check their
formation, but have no laxative action
whatever.

As to the treatment for diarrhea, when
there is a too laxative condition of the
bowels, due to the nature of the food,
the changing of food to dry bran and
chaff, of course, removes the cause, and the
laxative condition existing will probably
cease, but as a curative means for acute
diarrhea there is nothing in it. There
are practically no medicinal properties
in either bran or chaff, and certainly no
astringent actions. As a simple matter
of fact, an animal suffering from acute
diarrhea will not eat either bran or
chaff, and little of anything, and in order
to check the disease prompt and
energetic medical treatment is neces-
sary. V.]

GREAT DISPERSION SALE

AT ANNANDALE STOCK FARM, TILLSONBURG, ONTARIO, ON
Thursday and Friday, March 11 and 12, 1909.

100 Registered Holsteins and Ayrshires 100

20 BROOD SOWS, 20 SHOATS, AND 2 BOARS.

Heavy and Light Horses, Farm Machinery, etc. Absolutely everything goes, as the
owner is retiring from farming.

Of the Holsteins: There is one daughter of Calamity Jane, and one of
Calamity Jane 2nd; 28 of the get of PRINCE POSCH CALAMITY, son of Calamity
Jane, 25.1 lbs. butter a week, sire's dam, Alta Posch, 27.1 lbs.—world's
record for a 2-yr.-old; 7 of the get of King Veeman De Kol, dam Jessie
Veeman A, 26.25 lbs., sire's dam, Sadie Vale Concordia, over 30 lbs. butter
in 7 days. The blood of the best performers is found in members of this herd,
and nearly all those old enough to be in milk are in the A. R. with large
records. Idaline Pauline De Kol, record 90.5 lbs. milk 1 day, 593.6 lbs. in 7
days. A son and daughter of hers, and many other goods, will be sold. The
service bulls are Paladin Ormsby and Idaline Paul Veeman, whose 3 nearest
dams average 27 lbs. butter in 7 days. These bulls will be sold, many of
their get, and cows with calf to them.

The AYRSHIRES include the great public test cows: Jean Armour, Annie
Laurie 2nd, and their sons and daughters. There will be 13 Ayrshire cows;
all that are milking are entered in the Record of Performance, and there are
many good young things: the get of Scottie, whose dam has a record of
12,733 lbs. of milk in ten months, and of Stodocana Advance, whose dam,
Lily, and her dam, Almedia, are R. of P. cows, the latter with a record of
11,357 lbs. milk in 1 year. He will be sold, and a son of his from Jean
Armour and others. Catalogue tells all about them.

The horses include: 1 CLYDE MARE, 8 yrs. old; wt. 1,710 lbs.; with foal.
SPAN OF HACKNEYS, 2 and 3 yrs. old, and several A1 work horses used to 3 and
4 horse hitchers.

All the farm machinery: Potato Cutter, Planter, Sorter, Sprayer and
Digger, Upright Boiler (6 h. p.), 2 Choppers, Haying and Grain Harvesting
Machinery—for fast work and labor-saving—3 and 4 horse hitchers.

SEED CORN, SEED POTATOES, CLOVER SEED.

Everything, in fact, of use on a large, up-to-date farm.

Meeting will be held in opera house nights of sale. Addressed by able
speakers.

Terms: Time, up to 1 year, to suit purchaser, on approved notes bearing
6 per cent. interest. Sale, under cover, commences at 1 p.m. 11th, and 9 a.m.
12th. Cattle will be sold 12th March. Everything else 11th.

AUCTIONEERS:

Maj. E. R. Almas, Maj. T. M. Moore, Maj. E. J. House, Col. D. L. Perry, Col. L. G. Pearce,
Norwich, Springfield, Tillsonburg, Columbus, Ohio, Tillsonburg.

Catalogues by 26th February. Write:

GEO. RICE, PROP., TILLSONBURG, ONTARIO



No. 10 Plano Box Buggy.
Price, \$57.00.

Fifteen Years Selling Direct

We are the only manufacturers of Vehicles and Harness
in Canada selling direct to the consumer, and have been
doing business in this way for 15 years. We have no
agents, but ship anywhere for examination. You are
out nothing if not satisfied. Our prices represent the
cost of making, plus one profit. Our large free catalogue
shows complete line and gives prices. Send for it to-day.

International Carriage Co.,

BRIGHTON, ONTARIO.

Imported Clydesdales

All have great size, smoothness, quality, on the best of bottoms, and royally bred.

WM. COLQUHOUN,

MITCHELL, ONT.



IMPORTED SHIRES

At their St. Thomas stables,
the John Chambers & Sons
Co., of England have for sale
Correspondence solicited.
Address
DR. C. K. GEARY, St. Thomas, Ont.

Clydesdales and Hackneys

Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and
mares for sale always. HODGKINSON & TISDALE, BEAVERTON, ONTARIO.
G. T. R. and C. N. R. Long-distance phone.

NEW IMPORTATION OF CLYDESDALES.

My new importation of Clydesdales are now in my stables: 14 stallions, 2 fillies. Visitors
will find them as choice as ever seen in Canada. Big, full of style and quality, and
bred right royally.
T. D. ELLIOTT, Bolton, Ontario, P. O. and Station

COMPLETELY EXPECT TO LAND MY NEW IMPORTATION OF

CLYDESDALES AND HACKNEYS
about March 10th. My motto is: Quality, not quantity.

THOS. L. MERCER, MARKDALE, ONT., P. O. AND STA.

IMPORTED CLYDESDALES

My new importation for 1908 has now arrived—stallions and fillies—personally selected.
Richest in breeding; highest in quality; with abundance of size and character. Sold on
terms to suit. GEO. G. STEWART, HOWICK, QUE.

IMPORTED CLYDESDALES

My new importation
of Clydesdale stal-
lions and fillies, land-
ed a short time ago, are an exceptionally choice lot, full of flashy quality, style and char-
acter, and right royally bred. I will sell them at very close prices, and on terms to suit.
C. W. BARBER, Gatineau Point, Quebec. "Close to Ottawa."

Clydesdales

Imported and Canadian-bred. Our mares all are
bred to Acme (imp.), the 8th best breeding horse in Scot-
land in 1907. Four male foals and one filly, all from
high-class (imp.) mares, for sale right.

R. M. HOLBY, Sta. & P.O. Manchester, Ont., G.T.R.; Myrtle, Ont., C.P.R.

Make Your Own Stock Food.

One pound of Barnes English Compound makes ten pounds of stock food, by mixing it with three pounds of linseed meal and six pounds of corn meal. As a conditioner and flesh-producer has no equal. Postpaid on receipt of 50c., money order or stamps. Address: S. G. Amsden, Windsor, Ont.

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 Advisor. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, Toronto, Ontario, 75 Church St.



The Sunny Side HEREFORDS

For sale: 6 choice bull calves, 2 good yearling bulls. I can yet spare some cows and heifers. Special value in bulls and heifers.

Write for prices. Long-distance phone. M. H. O'NEIL, SOUTHGATE, ONT.

ABERDEEN-ANGUS CATTLE!

FOR SALE: Some of the best strains. Several fine heifers; also cows and a couple of bulls. Apply: MANAGER, GRAPE GRANGE FARM, CLARKSBURG, ONT.

Aberdeen-Angus

For sale: The right sort, some of them by Klondyke, imp. Drumbo station. WALTER HALL, Washington, Ontario.

Scotch Shorthorns

Four young bulls recently imported, one Brawith Bud, a grandson of Bapton Diamond; two Kilbean Beautys and one a Marr Emma; also Canadian-bred bulls, and a grand lot of heifers.

H. J. Davis, Woodstock, Ont.

Long-distance Bell phone. C. P. R. & G. T. R.

Athelstane Shorthorns

For sale: 5 young bulls and females—all ages. Some extra choice heifers. All of popular Scotch families. Roan Chief (imp.)—60865—heads the herd. WM. WALDIE, Box 324, Stratford, Ontario.

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 Stn.

Leading Tragic Man—Did you see how I paralyzed the audience in the death scene? They were crying all over the house? Stage Manager—Yes, they knew you weren't really dead.

Get acquainted with **Black Watch** the big black plug chewing tobacco. A tremendous favorite everywhere, because of its richness and pleasing flavor.

QUESTIONS AND ANSWERS. Miscellaneous.

COMPRESSED AIR AND AIR COMPRESSOR.

1. What are the chief points in the construction of an air compressor? Could a handy man make one to be used on a windmill?

2. If a circular tank twelve feet long and five feet in circumference was filled to a pressure of one hundred and fifty pounds, or ten atmospheres, about how long would it run a washing machine or a churn, i. e., using the air through a small rotary engine or common engine?

3. About what would an air compressor cost, or is there such a thing made for sale? J. D. L. C.

Ans.—1. A cylinder with a piston working inside, driven by piston rod. Best kind will compress both ways, therefore, on each end of cylinder there must be two valves, one for inlet and the other for outlet, and so arranged that when one is open the other is shut. The outlet valves should lead to one pipe, which is connected with the storage tank. The cylinder must be made very smooth and true, and the piston must fit well enough to be practically air-tight when in action. I doubt whether a handy man could make one that would be of any use unless he had access to a lathe and other machinery for fine and exact work. The experiment would probably cost him more than to buy a small compressor.

2. Just a few minutes. There would be only about 20 cubic feet of air in the cylinder, which, at 10 atmospheres pressure, would be equal to 200 cubic feet of free air, and since a large flow of air would be necessary to run the machinery, it would not take long for the 20 feet to expand to 200, and all the time the power would be decreasing.

3. You had better write some firm which manufacturers pumping machinery to ascertain if you can get a compressor separate from the engine to run it. Possibly some of the windmill manufacturers have compressors for use with windmills. WM. H. DAY.

ILL-CONDITIONED HEIFER—UN-THRIFTY CALVES.

1. What will bring a sow in heat?

2. Have a heifer coming three, calved about nine months ago; is very poor and seems to be all drawn up; eats fairly well, but doesn't move around much; seems to be getting thinner; skin tight. Please prescribe.

3. Am raising two calves; they are now three months old; am feeding separator milk, oats and corn chop, half and half, twice a day, dry; clover and bluegrass hay; they do not put on flesh as they should. What's wrong? Give balanced ration for them. J. E. L.

Ans.—Nature, if she doesn't, we do not know what will. You might try feeding the sow a little extra on such foods as shorts, bran, roots, etc., with the object of flushing her up in condition.

2. From description given, it is impossible to say what ails the heifer. Apparently she is in need of a tonic. Some of the proprietary stock foods might prove beneficial in a case of this kind; or purge with 1½ pounds Epsom salts, and follow up with 1 dram each of sulphate of iron and gentian, twice daily, for two or three weeks, in water, or as a drench. Feed a ration containing a proportion of bran, oil cake or flax seed, and clover or alfalfa hay.

3. The trouble is probably due to a deficiency of fat in the food. Starchy foods, such as corn meal, cannot be successfully used to substitute all of the natural fat of the milk. Young calves should have at least a small proportion of butter-fat, even at present prices of butter. To try to make up for the deficiency by giving an extra quantity of the separator milk, only makes matters worse. Add to the skim milk half a quart of whole milk at each feed (making half a quart per calf per day). To this add a little flax-seed jelly, made by boiling ground flax seed in water until a jelly-like consistency is attained. Gradually increase the amount of jelly until a teaspoonful is fed to each calf twice daily. As the calves grow older and become thrifty, the whole milk may be gradually withdrawn, and the flaxseed jelly increased. Feed the skim milk warm, always as near as possible in the same quantities, and at the same temperature. Continue the chop and hay.

ERADICATES SCAB Won't Harm Trees

The wonderful feature of V1 Fluid is its absolute safety to user, to animals, to trees and shrubs.

V1 is a revelation in Fruit Culture. Kills the spores of Fungi, and all growths such as Moss, Black Knot Canker, etc.

V1 invigorates the growth of the trees and bushes—produces more fruit and fruit of finer quality and appearance.

V1 Fluid is non-poisonous. Sheep may eat grass under sprayed trees without fear of injury.

One gallon of V1 Fluid makes 100 gallons of spray.

GIVEN AWAY

"The Eradication of Plant Pests" gives some facts for fruit growers that you ought to know. Sent free if you tell us the size of your orchard and mention this paper.

V1 FLUID

The Winter Spray

For sale by druggists and dealers generally or direct from WM. COOPER & NEPHEWS, TORONTO.

RAW FURS

WANTED IMMEDIATELY

200,000 MUSKRAT

WE BUY ALL OTHER KINDS OF FURS.

SHIPMENTS SOLICITED.

The Monteith, Strother Fur Co.

11 and 13 Church St. TORONTO

WE ARE PRICING VERY REASONABLY

10 Choicely-bred Young Shorthorn Bulls

Also one extra good imported bull, 22 months old. We have always something good to offer in females. Imported or home-bred. Write for what you want, or come and see them. Bell phone at each farm. W. G. PETTIT & SONS, Farms close to Burlington Jct. Sta., G. T. R. FREEMAN, ONTARIO.

SPRING VALLEY SHORTHORNS.

Our herd is pure Scotch, imp. and home-bred. 50 head to choose from. Our present crop of young bulls are the best we ever had. All sired by the great stock bull, imp. Bapton Chancellor. High-class show things among them, including this fall Toronto winners. Nearly every one a herd header.



KYLE BROS., AYR, ONT., P. O. and STATION.

SHORTHORNS

as well as a number of the useful sort of both sexes. Prices right. Large lot to select from. Up-to-date in breeding, etc. Catalogue.

JOHN CLANCY, Manager. H. Cargill & Son, Cargill, Ont.

WILLOWDALE SHORTHORNS

I have for sale some very fine young stock bulls and heifers ready to breed. Descendants of Joy of Morning, Broad Scotch and other noted sires. Also Chester White Swine and Imported Clydesdale Horses.

J. H. M. PARKER, LENNOXVILLE, QUE.

I Can Price for a Short Period Two High-class Young Bulls

One a straight Cruckshank, son of Jilt Victor (imp.); the other out of the show cow, Tiny Maude, and sired by The Dreamer, first-prize two-year-old at Kansas City.

J. A. WATT, SALEM, ONT., ELORA STATION, G. T. R. AND C. P. R.

VALLEY HOME SHORTHORNS and BERKSHIRES

Our herd is strong in Nonpareil, Marchioness, Jilt, Mina, Glosterina, Rosebud and Lady Brant blood. In order to save holding a public sale, we will sell very cheap 15 on- and two-year-old heifers and several extra choice bulls. Berkshire sows safe in pig. S. J. PIERSON & SON, Meadowvale P.O. and Sta.

Subscribe for "The Farmer's Advocate and Home Magazine." \$1.50 per Year in Advance.

QUESTIONS AND ANSWERS.
Miscellaneous.

MARKET FOR TAME RABBITS.

Are tame rabbits salable? If so, where is there a good market?

SUBSCRIBER.

Ans.—We are not aware of any regular market for live rabbits. An advertisement in "The Farmer's Advocate" would be the most likely means of finding purchasers that we can suggest.

HARNES OIL.

Could you give me a recipe for making harness oil? G. W. D. Sask.

Ans.—A good oil for farm and team harness is made by melting 3 pounds of beef tallow, but do not let it boil, then pour in gradually 1 pound of neatfoot oil and stir until cold. If properly prepared, the grease will be perfectly smooth and soft; if not it will be more or less granulated. A little lampblack may be used to color.

TITLE BY POSSESSION.

A owns a farm of 100 acres, on the corner of which is a cemetery of five acres. A sells to B, giving a deed for 95 acres, and reserving five as a cemetery. There is only about four acres inclosed within the old fence. Can B claim the extra acre by possession, having been working it for fifteen years, or can the cemetery trustees inclose the whole five acres. SUBSCRIBER. Ontario.

Ans.—We are inclined to think that B has acquired title by length of possession to the acre in question. It is very possible, however, that there may be circumstances which, in addition to those stated, would justify a different view being taken of the matter; and before definitely deciding upon the course to be taken in the event of the cemetery trustees proceeding to enlarge their inclosure he should consult a solicitor personally.

FEEDING MEAL—UNTHRIFTY HEIFER.

1. When is the best time to feed meal to cattle, before or after feeding roots.
2. I have a two-year-old heifer which has not been doing well. When we took her into the stable last fall she was very thin, bloated, and has had a grunt ever since, she feeds well, but will not fatten. SUBSCRIBER.

Ans.—1. The best way to feed meal is to sprinkle it on silage, chaff, cut hay or straw, or on pulped or sliced roots. If fed alone, it makes no difference whether fed before or after roots.

2. This appears to be a form of indigestion. Purge her with 1 1/2 lbs. Epsom salts, dissolved in a quart of warm water, as a drench. Allow only bran-mashes until purgation commences. Then give two-dram doses of nux vomica, three times daily, until purgation ceases. If necessary, repeat the purgative in a smaller dose, one pound in 36 to 48 hours.

PROSPECTING UP NORTH.

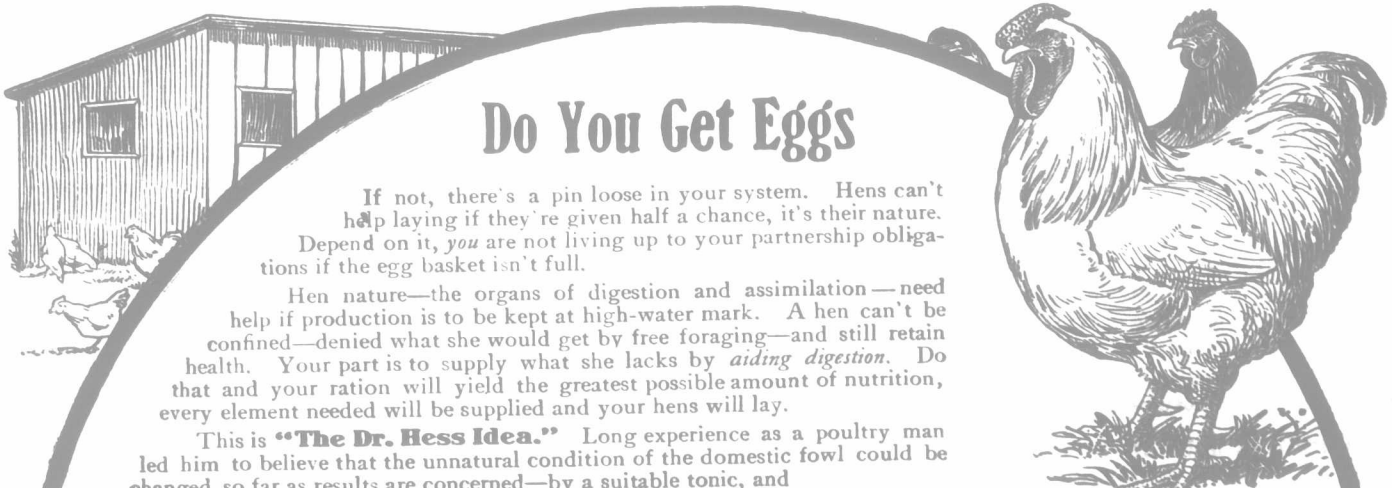
Please give, in your next issue, what a person requires for prospecting up north. Can he stake only one claim? Any other information will be helpful. Ontario. T. C.

Ans.—1. For prospecting any place in this Province on Crown lands, a person requires a miner's license, the cost of which is, from now until March 31st next, when all licenses expire, \$3. From April 1st, the fee is \$5, and a license of that date is good for one year. A miner's license may be obtained at the office of the Bureau of Mines, or from any Mining Recorder. If the lands on which prospecting is desired to be done are situated in a forest reserve, the prospector must have, in addition to his miner's license, a permit to prospect in forest reserves, obtainable only at this office, the cost of which is \$10, and which is good for one year from date of issue.

2. The holder of a miner's license is entitled to stake out three mining claims of 10 acres each in any mining division in one year.

3. Send for a copy of the Mining Act, which contains the information necessary for the obtaining of mining lands in this Province.

THOS. W. GIBSON,
Deputy Minister of Mines,
Parliament Buildings, Toronto.



Do You Get Eggs

If not, there's a pin loose in your system. Hens can't help laying if they're given half a chance, it's their nature. Depend on it, you are not living up to your partnership obligations if the egg basket isn't full.

Hen nature—the organs of digestion and assimilation—need help if production is to be kept at high-water mark. A hen can't be confined—denied what she would get by free foraging—and still retain health. Your part is to supply what she lacks by *aiding digestion*. Do that and your ration will yield the greatest possible amount of nutrition, every element needed will be supplied and your hens will lay.

This is "The Dr. Hess Idea." Long experience as a poultry man led him to believe that the unnatural condition of the domestic fowl could be changed so far as results are concerned—by a suitable tonic, and

DR. HESS Poultry PAN-A-CE-A

was formulated for the purpose. Thousands of poultry keepers are doubling their egg production by the use of this tonic. It is composed of most helpful ingredients—bitter tonic principles, iron for the blood and the necessary nitrates to keep the system free of harmful, poisonous matter. Dr. Hess (M. D., D. V. S.) guarantees this prescription. If you use it as directed and do not get more eggs, your money will be refunded. It fatts a market bird in the shortest time; carries fowls safely through moulting, helps chicks to early maturity and cures gapes, cholera, roup, etc. All poultry men endorse Dr. Hess Poultry Pan-a-ce-a. A penny's worth a day is enough for 30 fowls.

1 1/4 lbs. 35c; 5 lbs. 85c; 12 lbs. \$1.75; 25 lb. pall \$3.50. Duty paid. Dr. HESS & CLARK, Ashland, Ohio, U. S. A.

Send 2c for Dr. Hess 48 page poultry book free.

DR. HESS STOCK FOOD

It is "The Dr. Hess Idea" that digestion in animals can be improved. That is, the greater part of food can be made to assimilate and so form good flesh on the fattening steer or rich milk in the cow. Dr. Hess (M. D., D. V. S.) guarantees this prescription. If you use it as directed and do not get more milk, your money will be refunded. It fatts a market hog in the shortest time; carries hogs safely through moulting, helps hogs to early maturity and cures gapes, cholera, roup, etc. All hog raisers endorse Dr. Hess Stock Food. A penny's worth a day is enough for 30 hogs.

100 lbs. \$7.00; 25 lb. pall \$2.00. Smaller quantities at a slight advance. Duty paid. Send 2 cents for Dr. Hess Stock Book. Free.

INSTANT LOUSE KILLER KILLS LICE

10 Imported Scotch Shorthorn Bulls 10

Personally selected from the leading Scotch herds. Now in quarantine. Will be for sale at my farm first week in January. They are of such noted families as Broadhocks, Butterfly, Claret, Clara, Roan Lady and Jilt. I also have for sale four bull calves, from imp. sire and dam, and a number of good young cows and heifers. Catalogue being prepared. Write for one. Prices, as well as quality and breeding, will please you. Farm 1/4 mile from Burlington Junction station, G. T. R.

FRED. BARNETT, MANAGER.

J. F. MITCHELL, BURLINGTON, ONT.

SHORTHORNS

Nine bulls from 8 to 20 months old, reds and roans; 10 yearling heifers and a few cows. Will sell very cheap to make room in stables.

CLYDESDALES

One pair of bay mares and one dark brown, heavy draft and two spring colts.

JAMES McARTHUR, Gobles, Ontario.

SHORTHORNS!

Five bulls, sired by Lord Lieutenant, imp., one from imported dam. Cows and heifers from Lord Lieutenant, and now bred to Good Morning, imp., our present stock bull. All will be priced low, considering quality and breeding. Office near both stations.

SCOTT BROS., HIGHGATE, ONT. P. M. Ry. M. C. Ry.

Shorthorns!

BELMAR PARC

John Douglas, Peter White,
Manager. Pembroke, Ont.

Calves for sale by our grand quartette of breeding and show bulls:

Nonpareil Archer, Imp. Proud Gift, Imp.
Marigold Sailor. Nonpareil Eclipse.

Females, imported and from imported stock, in call to these bulls.

An unsurpassed lot of yearling heifers.

Shorthorn Cattle AND LINCOLN SHEEP.

Females of all ages for sale of the thick-fleshed, low-down kind that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes, bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale.

J. T. GIBSON, DENFIELD, ONT.

A. Edward Meyer, P. O. Box 378, Guelph, Ontario,

Breeds SCOTCH SHORTHORNS Exclusively

Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 55042 = (90065) 295765 A. H. B.; Gloster King = 68708 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

WILL MAKE PRICES ON THE FOLLOWING LIST OF Shorthorns, Clydesdales, Shropshires and Cotswolds

That No Man Keeping Live Stock Can Afford To Overlook:

Two imported bulls, tried sires, very valuable, will sell or exchange at moderate price. One Clydesdale filly coming three, from imported sire and dam, amongst the best. The filly is good and has the quality wanted in a show mare. A small number of imported cows and heifers, and some splendid young bulls and heifers from imported sires and dams. Good young Shropshire and Cotswold ewes in lamb to high-class imported sires.

ROBERT MILLER, Stouffville, Ont.



HAWTHORN HERD OF DEEP-MILKING Shorthorns

For Sale: 6 young bulls and 10 heifers, sired by Aberdeen Hero (imp.) = 28840 =. Some bred to the Lavender bull, Lavender Lorne = 68706 =.

WM. GRAINGER & SON, Londesboro, Ontario.

Pleasant Valley Herd

Present offering: 7 high-class young bulls by Imp. Ben Lomond = 45160 = (80468) and Bud's Emblem = 63860 =, and good imp. and Canadian-bred dams. Write for particulars and prices, or visit personally.

GEO. AMOS & SON, Moffat Station and P. O. Moffat is 11 miles east of Guelph on C. P. R.

AN OPPORTUNITY TO SECURE YOUNG Shorthorn Bulls

A few heifers will be sold cheap. One Clydesdale Stallion rising three years.

MAPLE SHADE FARM. STATIONS: } MYRTLE, C. P. R.
BROOKLIN, G. T. R.

JOHN DRYDEN & SON, BROOKLIN, ONT. Long-distance telephone.

Glen Gow Shorthorns

Our present offering is 9 bulls from 6 to 14 months of age, sired by imp. Ben Loman and imp. Joy of Morning, and out of imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance phone. WM. SMITH, Columbus, Ontario Brooklin and Myrtle Stns.

CLOVER DELL SHORTHORNS

My herd are profitable milking Shorthorns. For sale are a few females and two good red bulls, of good milking dams, for spring service. I. A. Wakely, Bolton, Ont., P. O. and Station. Farm within 1/2 a mile of station.

Shorthorns, Cotswolds, Berkshires.

Nine bulls from 9 to 14 months, from imp. and home-bred cows, and sired by Pride of Day 55192; also cows, heifers and heifer calves. Nothing to offer in Cotswolds or Berkshires.

Chas. E. Bonnycastle, Campbellford, Ont. Post Office and Station.

Scotch Shorthorns!

I am offering a few choice young bulls, also heifers in calf to imp. bull. Will be pleased to furnish pedigrees and prices upon application.

JOHN MILLER, Brougham, Ontario. Claremont Stn., C. P. R.

Registered Shorthorn Yearling Bull

A Strathallan. Color red. Fine form and well fleshed, with excellent quality and very promising. Price moderate to early buyer. Dam a real good milker.

J. & D. J. CAMPBELL, WOODVILLE, ONT. Fairview Farm.

Scotch Shorthorns Canada's greatest living sire, Mildred's Royal, heads my herd. For sale are young bulls and heifers, show stuff and Toronto winners, out of Stamford, Lady Ythan, Claret, Emaline, Matchless and Belona dams. A visit will be appreciated. GEO. GIER, Grand Valley P. O., Ont. Waldemer Sta., C. P. R.

Our present offering consists of 10 young bulls, from 8 to 20 months. All nice reds and roans. A number of them from imp. sire and dam. Prices right.

R. Mitchell & Sons, Nelson P. O., Ont. Burlington Jct. Sta.

Stoneleigh Stock Farm

E. JEFFS & SONS, breeders of Shorthorns, Leicesters and Berkshires. Young stock of various ages and both sexes for sale. Bond Head P. O. Bradford and Beeton stations, G. T. R.

BRONCHITIS

Bronchitis is generally the result of a cold caused by exposure to wet and inclement weather, and is a very dangerous inflammatory affection of the bronchial tubes.

The Symptoms are tightness across the chest, sharp pains and a difficulty in breathing, and a secretion of thick phlegm at first white, but later of a greenish or yellowish color. Neglected Bronchitis is one of the most general causes of Consumption.

Cure it at once by the use of



Mrs. D. D. Miller, Allandale, Ont., writes: "My husband got a bottle of Dr. Wood's Norway Pine Syrup for my little girl who had Bronchitis. She wheezed so badly you could hear her from one room to the other, but it was not long until we could see the effect your medicine had on her. That was last winter when we lived in Toronto.

"She had a bad cold this winter, but instead of getting another bottle of Dr. Wood's Norway Pine Syrup, I tried a home made receipt which I got from a neighbor but found that her cold lasted about twice as long. My husband highly praises 'Dr. Wood's,' and says he will see that a bottle of it is always kept in the house."

The price of Dr. Wood's Norway Pine Syrup is 25 cents per bottle. It is put up in a yellow wrapper, three pine trees the trade mark, so, be sure and accept none of the many substitutes of the original "Norway Pine Syrup."

1854 MAPLE LODGE STOCK FARM 1909

A few extra good young SHORTHORN bulls and heifers for sale
LEICESTER ram lambs by the grand champion ram, "Sanford." Right good ones, and a few choice ewes.

A. W. SMITH, MAPLE LODGE P. O., ONT.
Lucan Crossing Station, G. T. Ry.

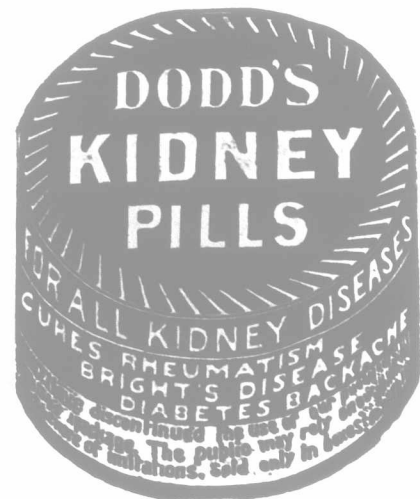
Married Man Wanted—to engage by the year for farm work and stock feeding; must be experienced along these lines. One having some experience in handling show Shorthorns and Clvdes fables preferred. Comfortable house on the farm supplied.

GEO. D. FLETCHER,
Wellington Co. Binkham P.O., Ont.

Scotch Shorthorns—Present offering: four heifers all roans, all of breeding age, in calf to Lord Lieutenant, 1 mp; all are imp. or bred direct from imp stock. Terms and prices easy.
L. K. WEBER, Hawkeville, Ont.

There were some deficiencies in the early education of Mrs. Donahoe, but she never mentioned them or admitted their existence. "Will you sign your name here?" said the young lawyer whom Mrs. Donahoe had asked to draw up a deed transferring a parcel of land to her daughter. "You sign it yourself and I'll make me mark," said the old woman quickly. "Since me eyes gave out I'm not able to write a wurrd, young man."

"How do you spell it?" he asked, pen poised above the proper space. "Spell it whatever way you please," said Mrs. Donahoe, recklessly. "Since I lost me teeth there's not a wurrd in the wurrld I can spell."



QUESTIONS AND ANSWERS. Miscellaneous.

SICK CALF.

Calf was sick for about a week; would not eat or drink, and scoured a little. Do you think that frozen grass would cause it, for it was on the grass for a day. It seemed to waste away from the hind quarters. What is the best thing to give it, and what would you call the ailment.

SUBSCRIBER.

Ans.—The eating of frozen grass by a calf that was not used to such feed, would probably cause a form of indigestion, accompanied by diarrhea, and loss of appetite. Treatment in such case would be: First, a dose of castor oil or raw linseed oil, to remove the irritating substance, followed by half dram each of gentian and nux vomica, as a drench, in a pint of water, twice daily for a week.

FARM LANDS IN VILLAGE.

I own a 150-acre farm. About two years ago our village was incorporated, and they took in twenty-one acres of my farm. I have a frontage of about fifty rods, but nothing but the tenant's house is on the front road, as all my other buildings are on a sideroad, and only the front of the farm faces the main road, the rest running back. Is not my acreage in village property too much, and, if so, what is the limit of acres they can tax me for?
P. T. Ontario.

Ans.—We do not see that it is, but would refer you for further information to the Assessment Act, 4 Edw. VII., Chap. 23, Secs. 39-41, and more particularly Sec. 40, as amended by Statute of 1907, Chap. 41, Sec. 6.

SCARLET FEVER.

A child is sent home from school as he showed symptoms of scarlet fever, a very mild attack, which was prevalent in the community. The next morning the Medical Health Officer (a doctor) goes over and pronounces it fever, but leaves no medicine, then comes back again in the evening and puts up a card at the road gate. In about a week he comes back, as someone has told him that some of the rest of the family have it, which was not true. Then he comes back to take down the card and disinfect the house. The doctor was never sent for by any of the family.

1. Who pays the doctor for his trips?
2. Who pays for the disinfecting of the house?
3. Can the doctor keep another child from school when he would not pronounce fever in the family?
N. W. B. Ontario.

Ans.—1. The municipality.
2. Under the circumstances stated, we would say that the municipality must defray this expense also, unless the head of the family is willing to do it.
3. We think so.

ELECTRIC POWER LINE.

The Niagara Power Company are building their line through the township, along the road in front of my farm. I have maple trees along the road in front of my farm, inside the fence. I used the trees for fence posts for a Page wire fence. The trees were planted there 27 years ago, and are nice shade trees. They are from 20 to 30 inches in circumference. There are 30 maple trees, and some large, fruit-bearing apple trees, which have to be taken away.

1. What price have the company to pay for each kind of trees, as they do not allow me to plant any trees along there any more?
2. Can the company compel me to cut off the tops of the trees, and the branches on the side to the road, if they go through my neighbor's farm across the road. The road is four rods wide, and they built the tower 16 feet wide at the bottom, and 60 feet high. They place two feet on the road and the other two feet on the farm.
A SUBSCRIBER, Ontario.

Ans.—There is no arbitrarily fixed price. The compensation must be reasonable, but just what is to be given must, if the parties cannot agree upon an amount, be determined by an award of arbitrators.

2. No, but they may do so if it be really necessary for their legitimate purposes.

Planet Jr.
Bigger crops with less work
Planet Jr. implements are the greatest labor-savers and crop-producers ever used in the garden or on the farm.
They do the work of six men, and do it better than by old methods. Invented and manufactured by a practical farmer. Strong and lasting. Fully guaranteed.
No. 38 Single-Wheel Disc-Hoe Cultivator and Flow is a handy tool for quick thorough garden cultivation. The new-style cultivator teeth run shallow next the row, and the leaf-lifter prevents injury to plants. Discs are adjustable for desired depth, and throw to or from the row.
New No. 10 Horse-Hoe, Cultivator, Tiller, and Vine Turner is the lightest, strongest Horse-Hoe made. Works great as a furrower. The vine-turners make it easy to cultivate all vine crops. The new expander-and-lock revolutionizes the working of one-horse cultivators.
Write today for 1909 catalogue giving full description and pictures of all Planet Jr. combination hand-seeders and wheel-hoes and horse-cultivators, etc. Mailed free.
S. L. Allen & Co. Box 1108F Phila Pa

WRITE FOR THE NAME OF OUR NEAREST AGENCY. 5

MAPLE HOME SHORTHORNS

Our present offering: Two choice young bulls; also some good heifers and young cows. Away above the average. Pure Scotch and Scotch-topped.

A. D. SCHMIDT & SONS, Elmira, Ont.

Brownlee Shorthorns Three young bulls left yet, 14 to 16 months. Will sell at a bargain. Also a few heifers. Very reasonable. Good milking strains.
C. P. R. station. D. BROWN, AYR, ONT.

Prizewinning Ayrshires

FOR SALE:

5 High-class Bulls, from 6 to 24 months of age; 10 Cows and Heifers, from 6 months to 5 years of age.

All bred from the deepest-milking strains.
A. Kennedy & Son, Vernon, Ontario.
Hillview Stock Farm, Winchester station, C. P. R.

Ayrshires from a Prizewinning Herd—Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to
W. M. STEWART & SON,
Campbellford Stn. Menie P.O., Ont.



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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.

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AYRSHIRES

Bull and heifer calves from producing dams. Right good ones.
Hickory Hill Stock Farm, Dundas Station and telegraph.
N. DYMENT, Clappison, Ont.

HOWGLEN AYRSHIRES!

For sale: 75 pure-bred registered Ayrshires, all ages; prizewinners; many imported. Apply to
ALLAN P. BLUE, Eustis, Quebec.

SPRINGBROOK AYRSHIRES

have been bred with a view to large milk and butter production, coupled with vigor of constitution, and being true to type. A few bull calves of 1908 for sale.
W. F. STEPHEN, Box 163, Huntingdon, Que.

Ayrshire Bulls from cows that averaged 1300 lbs. of 3.9 milk during January. Only two left—one yearling fit for service and one fall calf. Orders booked for spring calves, males only. Cheap for quick sales. James Beff, Box 88, St. Thomas, Ont.

BURNSIDE AYRSHIRES

are in such demand that I have decided to make another importation. I intend attending the great dispersion sale of the world-renowned Barcheskie Herd, belonging to Mr. And. Mitchell, Kirkcudbright, Scot., where some 300 of the choicest Ayrshires ever offered will be sold. Orders entrusted to me will be carefully attended to. Breeders, take advantage of this great sale, and replenish with a few good ones. Correspondence solicited and satisfaction guaranteed. Long-distance 'phone in house.

R. R. NESS, HOWICK, QUE.



THE GOLDEN LAD BULL.

Golden Fox of Dentonia. First-prize yearling and junior champion at Toronto, 1907, Exhibition. His calves coming from my pure St. Lambert cows proves this cross a wonderful success. Correspondence invited.

T. PORTER, Weston Road, Toronto Junction.

Brampton Jerseys!

Select your stock bull or family cow from Canada's most famous and largest Jersey herd.

B. H. Bull & Son, Brampton, Can.

ARE YOU IN WANT OF A CHOICE BULL TO HEAD YOUR HERD?

We are offering choice bull calves, sired by Fountain's Boyle, who won first prize at Toronto, London and Ottawa, who also headed first-prize herd at Toronto and Ottawa. Also offering some choice heifers.

D. DUNCAN, DON, ONT.

DUNCAN STATION, C. N. O.

DEHORN YOUR CATTLE
Wonderful how it improves them. Heifers develop into better milkers. Steers fatten quicker.

KEYSTONE DEHORNER
does it. Cuts clean—hurts little—does not bruise flesh or crush bone. Write for free booklet.
R. H. McKenna, Late of Picton, Ont.

\$19 Robert St. Toronto

Homewood Holsteins!

The home of the "Guelph Dairy Test" champion. For sale are: 1 yearling bull, with official backing; 2 bull calves, richly bred. A few splendid females.

M. L. & M. H. HALEY,
Springford, Ont., P. O. and Sta., Oxford Co.

The Maples Holstein Herd!

RECORD-OF-MERIT COWS.

Headed by Lord Wayne Mechthilde Calamity, also in the Record of Merit. Several choice bull and heifer calves; also one bull fit for service.

WALBURN RIVERS, Falden's Corners, Ont.

EVERGREEN STOCK FARM

Females all sold. Still have a few young bulls from 12 to 15 months old, sired by a son of Tidy Abbecker, record 25.58 lbs. butter and 581 lbs. milk in 7 days. Dams also in Record of Merit.

F. E. PETTIT, Burgessville, Oxford Co., Ontario.

Maple Hill Holstein-Friesians

Special Offer: I must sell in next 30 days two cows; one bred in Nov. to Prince Posch Pictetie C; one fresh in Dec., just bred. One yearling bull fit for service.

G. W. CLEMONS, ST. GEORGE, ONT.

Holsteins at Ridgedale Farm—Eight bull calves on hand for sale, up to eight months old, which I offer at low prices to quick buyers. Write for description and prices, or come and see them. R. W. WALKER, Utica P.O., Ont.

Shipping stations: Myrtle, C. P. R., and Port Perry, G. T. R., Ontario Co.

When Writing, Mention This Paper.

MARCH 4, 1909

QUESTIONS AND ANSWERS. Miscellaneous.

POISONING FOXES IN QUEBEC.

Is it lawful to put out strychnine for foxes in Quebec? H. G. Y. Ans.—The fisheries and game branch of the Quebec Government state that it is forbidden, at all times, to use strychnine, or any other deleterious substance whatsoever, to hunt, take, kill or destroy any animal mentioned in the Quebec Game Act.

HOG PASTURE FOR SUMMER.

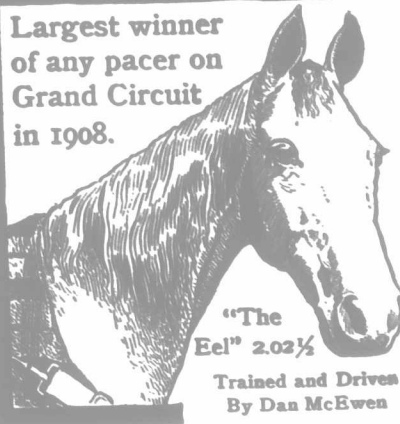
I have a piece of ground I want to make into a hog pasture for next summer. What would be best to sow, Mammoth Red clover, rape, or equal parts of wheat, oats and barley, the land being fall-plowed? O. C.

Ans.—If but one of these crops is to be used, you probably would get most satisfactory returns from rape. If, however, the land is in good condition, why not sow the mixture of wheat, oats and barley, as early in spring as the soil is fit. After pasturing for some time, this can be plowed and sown to rape during the latter part of June. Either Mammoth or common red clover is excellent hog pasture, but it is advisable to seed down to Mammoth with a grain crop, the same as red, and in this way pasture is not provided until the following season. Some have advised seeding to clover, along with rape, in early June. The rape can be pastured during summer, and then the clover comes on for fall use, but, of course, may not be pastured close, if it is to be depended on for the following season. As a rule, common red clover is more popular than Mammoth clover.

ALFALFA SEEDING.

I sowed twenty pounds of alfalfa seed on an acre in the spring of 1907, with one bushel of barley. It came up all right, but in the fall the top leaves and part of stem seemed to die. In the spring of 1908, all that remained was a strip four or five rods wide across the center where a tile drain was. I plowed it up. I now have a piece of land that has been in pasture for six or seven years. There is a hill through it containing about two acres that does not grow much grass. The soil is mostly sandy; that is, the hill part; but on each side it is good clay. I would like to get it seeded to alfalfa. Which of those plans do you think best to follow? I shall plow this spring and sow to peas. If I sow canning-factory peas, they will be off in July. I could then work the ground and sow seed. If I sowed field peas, I could either sow fall wheat this fall, or barley in the spring of 1910, and sow the seed with one of those crops. I intend to plow five acres. I am afraid the alfalfa might not grow if sown in July or August. By answering the above, you will confer a favor on an old subscriber who is greatly pleased with "The Farmer's Advocate." R. H. S. Middlesex Co., Ont.

Ans.—The trouble with the alfalfa sown in 1907 was, evidently, lack of adequate drainage, and probably an acid condition of the soil. The difficulty with the intended seeding on the sandy land will quite probably be lack of fertility and of moisture. However, by fertilizing well with unleached wood ashes, say fifty bushels to the acre, and ten or fifteen loads of barnyard manure, both applied before the preceding crop of peas, a profitable and fairly permanent stand of alfalfa may be obtained. Before sowing the alfalfa seed, work in thirty bushels to the acre of air-slaked lime, or, preferably, three or four tons per acre of fine-ground limestone rock. Before sowing, also treat the seed with a bottle of nitro-culture, obtained for the nominal charge of 25 cents, from the Bacteriological Laboratory, O. A. C., Guelph. Drainage, fertility, liming, inoculation, clean condition of the land and liberal seeding, are important factors in the successful culture of alfalfa. We incline to the opinion that on the sandy hill-side spring seeding, either alone or with a very light nurse crop of barley, would provide most likely chances of success. It might, however, be well to sow the canning-factory peas, and then cultivate thoroughly, and if there should be a wet fall or August, a good catch might be obtained by summer seeding. If not, the alfalfa would be in excellent condition for a second attempt the following spring.



"The Eel" 2:02 1/2 Trained and Driven By Dan McEwen

Dan McEwen Feeds Royal Purple Stock Specific Regularly to "The Eel"

Dan McEwen speaks very highly of Royal Purple Stock Specific. In his letter of Sept. 14th he says in part: "I have used Royal Purple persistently in the feeding of 'the Eel' and 'Henry Winters.' I consider it the best article I have ever used in conditioning race horses. These horses have never been off their feed since I commenced using Royal Purple Stock Specific, almost a year ago, and you can rest assured I will always have it in my stables."



Royal Purple is being fed to "Henry Winters" (Trial mile 2:09 1/4) brother of "Allen Winters," winner of \$36,000 in trotting stakes in 1908.

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We have hundreds of letters from stockmen, dairymen and poultry men, published in our free booklet, who speak just as enthusiastically of Royal Purple as does Mr. McEwen. They report that Royal Purple Stock Specific has increased the yield of milk from three to five pounds per cow per day—that rundown animals have been restored to former plumpness almost magically—that Bots, Colds, Debility, Skin Diseases and Worms have been permanently cured. Poultry raisers say that Royal Purple Poultry Specific is the best ever used for young chicks—that it makes hens lay in winter—that it prevents fowls losing flesh at moulting time. Some manufacturers recommend their stock food for poultry, but our experience has demonstrated that the requirements of poultry differ materially from those of cattle. Royal Purple Specifics will do your cattle and poultry a world of good. They are not grain foods. They are highly concentrated articles. A spoonful of Royal Purple gives better results than a cup of many other stock foods. A 50c package will last an animal 30 days—55 fowls 70 days. A \$1.50 pack containing four times as much will last 90 days. If you are unable to procure Royal Purple from merchants or agents we will supply you direct express prepaid to any point east of North Bay one pair of Stock Specific or one pair of Poultry Specific upon receipt of \$1.50.

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WOODBINE STOCK FARM

Offers a few fine young Holstein bulls and bull calves, sired by Sir Mechthilde Posch. Sire's dam holds world's largest two-day public test record, dam Ianthe Jewel Mechthilde, 27.65 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. R.; Agr. C. P. R. A. KENNEDY, Agr. Ont.

LAKEVIEW HOLSTEINS

Herd headed by Count Hengerveld Fayne De Kol. His dam, Grace Fayne 2nd, 26.30 lbs. butter in 7 days, is dam of world's champion 4-year-old butter cow. Sire Count Hengerveld De Kol, 70 A. R. O. daughters, including world's champion milk cow. For sale: 1 service bull; 10 bull calves, by 20-lb. butter cows. 75 head to select from. W. D. BRECKON, Mgr., Brant, Ont.

FAIRVIEW HERD HOLSTEINS

The greatest A. R. O. herd of in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose seven-day records average 29 1/4 pounds each, and over 4 3/4% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple, 31.62 pounds butter in 7 days, and 22.55 pounds in 30 days, at 4 years old. Cows and heifers in calf to the above two bulls for sale, also young bulls sired by them out of large-record cows. Write, or come and inspect our herd. E. H. DOLLAR, Newfytton, St. Law. Co., N. Y., near Prescott, Ont.

OIL CAKE

J. & J. Livingston Brand

The finest feed known for stock. Once a user, always a user. Sold either fine or coarse ground. Write:

DOMINION LINSEED OIL CO., LIMITED, 31 Mill St., MONTREAL, QUE.

IMPERIAL HOLSTEINS!

For sale: 13 bulls of serviceable age, sired by Tidy Abbekirk Mercedes Posch, whose 7 nearest dams have records within a fraction of 27 lbs. Out of show cows, with high official records. A high-class lot of young bulls. W. H. SIMMONS, New Durham, Ont., Oxford County.

BUSINESS HOLSTEINS!

Over 60 head to select from. Milk yield from 60 to 85 lbs. a day, and from 35 to 47 lbs. a day for 2-yr-olds. There are 10 2-yr.-old heifers, 8 1-yr.-olds, and a number of neifer calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. W. Higginson, Inkerman, Ont.

RAW FURS and HIDES

Write for Weekly Price Lists. Shipments Solicited. JOHN HALLAM - TORONTO, ONT.

Riverside Holsteins

For sale: Seven young bulls from two to nine months old, out of Record of Merit cows, sired by Sir Pietertje Posch De Boer, whose dam and sire's dam average in official test 25.87 lbs. butter in 7 days, and 87.6 lbs. milk in 1 day.

Centre and Hill View Holsteins

We are now offering 8 choice young bulls from 6 to 10 months of age, with high official backing. These are a grand lot of young bulls. We are entirely sold out of females for the present.

HOLSTEINS

time 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 Hermes, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented. Putnam station, near Ingersoll.

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 life-time. Write for particulars.



H. E. GEORGE, Crampton, Ont.

NOW

in bulls from R. O. M. dams? Or better yet, call and see us.

E. & F. MALLORY, FRANKFORD, ONTARIO.

DON'T

Buy a HOLSTEIN BULL till you get my prices on choice goods from 14 months to 1 month old, from best producing strains. "Fairview Stock Farm." FRED ABBOTT, Harrisville, Ont.

HOLSTEINS Two bull calves, two yearling heifers, two two-year-old heifers. Prices right for quick sale. White Rock and Buff Orpington eggs. Utility pens, \$1 per setting; exhibition pens, \$2 per setting. DAVID RIFE & SONS, Hespeler, Ont.

Cattle and Sheep Metal ear labels, with owner's name and address, and numbers. Sample and price mailed free. F.G. JAMES, Bowmanville, Ont.

Young Holstein Bulls For sale: Two Holstein bulls 11 months of age, sired by Cornelius Posch 2nd, and out of young cows that are showing up well. Will be sold cheap for quick sale. Josh. Harrison, York Mills Ont.

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SPLENDID MUTTON, GOOD WOOL, GREAT WEIGHT.

Unrivalled in rapid and WONDERFULLY EARLY MATURITY, hardiness of constitution, adapted to all climates, and in quality of MUTTON AND LARGE PROPORTION OF LEAN MEAT.

Champion against ALL breeds at the great Smithfield Show, London, 1908.

Full information of

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LAND FOR SETTLEMENT!

Lands are offered for settlement in some cases FREE, in others at 50 CENTS per acre, in various districts in NORTHERN ONTARIO. Write for information as to terms homestead regulations, special railway rates, etc.

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Minister of Agriculture,
Thos. Southworth,
Director of Colonization, Toronto.

Boys for Farm Help The managers of Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 50-52 Peter St., Toronto.



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Is the result of the vigorous, thrifty plant growth insured immediately upon the application (at planting time) of

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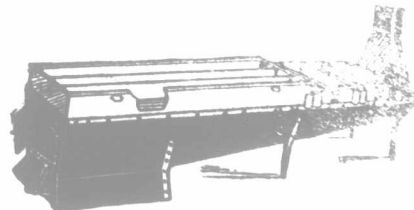
Test it for Yourself Entirely Free

Let us send sufficient Nitrate of Soda for you to try, asking only that you use according to our directions, and let us know the result. To the twenty-five farmers who get the best results, we offer, as a prize, Prof. Voorhees' most valuable book on fertilizers, their composition, and how to use for different crops. Handsomely bound, 327 pages.

Apply at once for Nitrate of Soda by post-card as this offer is necessarily limited. "Grass Growing for Profit," another book of useful information, will be sent free to farmers while the present edition lasts, if paper is mentioned in which this advertisement is seen.

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Did you ever stop to think that you can make your maple grove the best paying investment on your farm for actual time spent? These results are accomplished by thousands of up-to-date syrup makers on the American continent every year. Why not get in line and make something better than can be produced by using old, out-of-date pans? We can interest you. Write for descriptive catalogue.

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MEN WANTED AT ONCE on salary and expenses. One good man in each locality with rig or capable of handling horses to advertise and introduce our guaranteed Royal Purple Stock and Poultry Specifics. No experience necessary; we lay out your work for you. \$25 a week and expenses. Position permanent. Write W. A. JENKINS MANFG CO., London, Ontario.

When Writing, Mention This Paper.

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I make this offer to weak men, particularly those men who have spent their earnings for years on dope (the drugs that make them feel like a young colt one day and like an old, broken-down hack the day after), those men who have tried so many things that they are tired of fooling and want a cure. These are the men I appeal to, and to any man who will give me reasonable security I will give my

ELECTRIC BELT ON TRIAL UNTIL YOU ARE CURED



I claim that I can cure weak men; that I can pump new life into worn-out bodies; that I can cure your pains and aches, limber up your joints and make you feel as frisky and vigorous as you ever did in your life. That's claiming a good deal, but I have got a good remedy, and know it well enough to take all the risk if you will pay me when you are cured. No man can lose on this. If the cure is worth the price you don't have to pay for it until you get it. When you are ready to say you are a big, husky and frisky specimen of vigorous manhood; that you haven't got an ache or pain in your whole body, and that you feel better than you ever did in your life, I get paid. If you can't say it after using my Belt for three months, then give me back my old Belt and I won't ask a cent.

A short time ago I took a case that I couldn't cure, and I didn't see why, as I had cured hundreds like it. Anyway, my patient returned the Belt and said I hadn't done him any good. He said he thought I had treated him honestly and wanted to pay me the cost of the Belt, because it could not be used again. I refused, and told him that I had made a contract to cure him or get nothing, and I wouldn't take a dollar I hadn't earned.

I don't charge much for a cure. My Belts are as low as \$5. That will cure some cases, and it won't cost you a cent if it doesn't. Did you ever see a doctor who would agree to cure you for \$5 and wait for his money till you were cured?

I've cured lots of men who had paid over a thousand dollars to doctors before they came to me.

This is the Way They Feel

The men who had given up hope, who thought there was no cure for them, until they came upon Dr. McLaughlin's Electric Belt. Now they are full of life and overflowing with joyous spirits. Pains are gone, weakness has gone, and full vigor is in every action.

Do you want to feel like that? Then wear the grand life-giving appliance for two months at night. It will charge every nerve with electric life, and you will feel re-energized and invigorated. It gets steam into your run-down body, drives away pain and renews youth.

Dear Sir,—I take pleasure in saying that my aches and pains have completely left me, and I am well pleased with your Belt, as it is good value for the money. I have worn it for two months, and I got good value for it the first two weeks. I am twice as strong as before, and better in all ways. I would advise all suffering people to get one and be convinced for themselves. I cannot say too much in favor of your Belt.

WM. S. CARTER, Box No. 14, Mapleton, Ont.

Dear Sir,—I am much pleased to state that I have had no occasion to use your Belt since I wrote you two years ago. It cured me of those deadly drains, also pains and kidney trouble, and I must say your Belt is all you represented it to be. I will heartily recommend your Belt to any one whenever I get a chance. Wishing you success in your good work, I remain,

GEORGE DUNCAN, Lachine Locks, Que.

Dear Sir,—I can say that I have found your Electric Appliance to be all you claimed it to be. I am quite well now. Wishing you every success.

J. NELSON EDWARDS, Clarence, Ont.

Dear Sir,—About ten years ago I got one of your Belts. I gave it a thorough trial, and for those who have Weak Backs or suffer from losses of any kind, I would recommend your Belt.

G. J. REDFORD, JR., 226 Broadview Ave., Toronto, Ont.

Get Some Life Into You

What's the use of dragging your legs about like a wooden man? Feel like a man of spirit. Away with the pains and aches; off with this wretched feeling as if you were seventy years old and had one foot in the grave. Come and let me put life into your nerves; let me give you a new supply of youthful energy. Let me make you feel like throwing your chest out, and your head up, and saying to yourself, "I'M A MAN!" Let me give you back that old feeling of youthful fire, vim and courage. I can do it, so that in two months you will wonder that you ever felt so slow and poky as you do now. Act to-day. Life is sweet, so enjoy every minute.

SEND FOR THIS BOOK TO-DAY

Do you want to feel big, husky and powerful, with your veins full of vital fire, your eye clear and your muscles strong and active? If you cut out this coupon and send it to me, and I will send you a book which inspire you with the courage to help yourself. It is full of the things that people feel like being strong and healthy, and tells of others like yourself who were just as weak once, but are now among nature's best specimens strong and healthy manly beings. Cut out the coupon and send it to-day. Get this book free, sealed, by return mail. Call for free consultation. Office Hours—9 a.m. to 6 p.m.; Wednesday and Saturday till 9 p.m.

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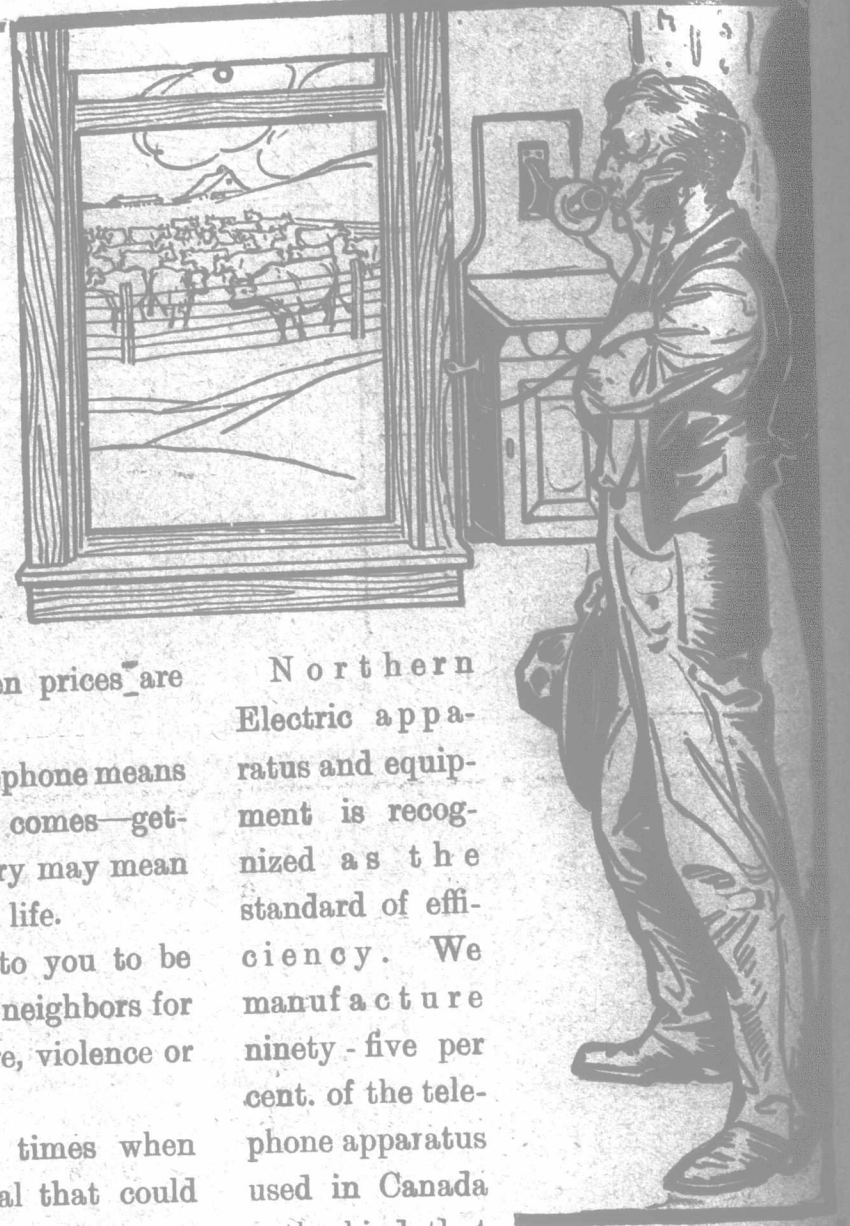
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Do you realize exactly what a telephone means to you, and at what little cost you can have an efficient service—



HAVE you ever gone carefully into the advantages of having a telephone on your farm?

Have you ever considered what help it would be to you? What money and worry it would save you?

Let us just see what it does mean to you?

When you want something from town—a new part for your reaper, a particular kind of wire fencing, or any of the many things that you may want from time to time which requires a special explanation—under ordinary circumstances you have to go into town yourself and lose a half-day that could be profitably spent on your farm.

Over the telephone you can explain exactly what you want, make sure your dealer has it, and then send a boy for it.

When you are ready to sell your cattle, grain, hay, etc., you stand to lose considerable money unless you know what the current prices are before you ship your produce into town. With a telephone it takes you but a moment to find out how the market stands, and you can

sell your products when prices are highest.

Just think what a telephone means to you when sickness comes—getting the doctor in a hurry may mean the saving of a priceless life.

Think what it means to you to be able to call upon your neighbors for assistance in case of fire, violence or accidents.

Haven't there been times when you could save an animal that could be ill spared, if you could get a veterinarian in time?

Besides this, think what it means to your women folk—social chats that brighten the day, arranging of visits, getting up parties,—the telephone puts you in close, intimate touch with your neighbors in spite of the distance that separates your homes.

You can have this valuable service at very little cost.

But the only way to get the right service is to get the right telephone. You must have one that you can depend upon day in and day out—one that will always give you perfect service. A reliable telephone is of inestimable value—a poor telephone is worse than none.

Northern Electric apparatus and equipment is recognized as the standard of efficiency. We manufacture ninety-five per cent. of the telephone apparatus used in Canada—the kind that is in use from Halifax to Vancouver. So if you want accurate, dependable service, buy and use only Northern Electric apparatus and equipment.

The first step towards getting such a service is to write for our book "Rural Telephone Equipment" and talk it over with your neighbors.

Write us and say you are interested getting the right telephone service in your community, and we will send you full particulars. Ask for Bulletin No. 1216, and we will send you detailed particulars.

Write to-day.

THE NORTHERN ELECTRIC AND MANUFACTURING CO. LIMITED

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Manufacturers and suppliers of all electrical and mechanical equipment used in the construction, operation and maintenance of Telephone and Power Lines.

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