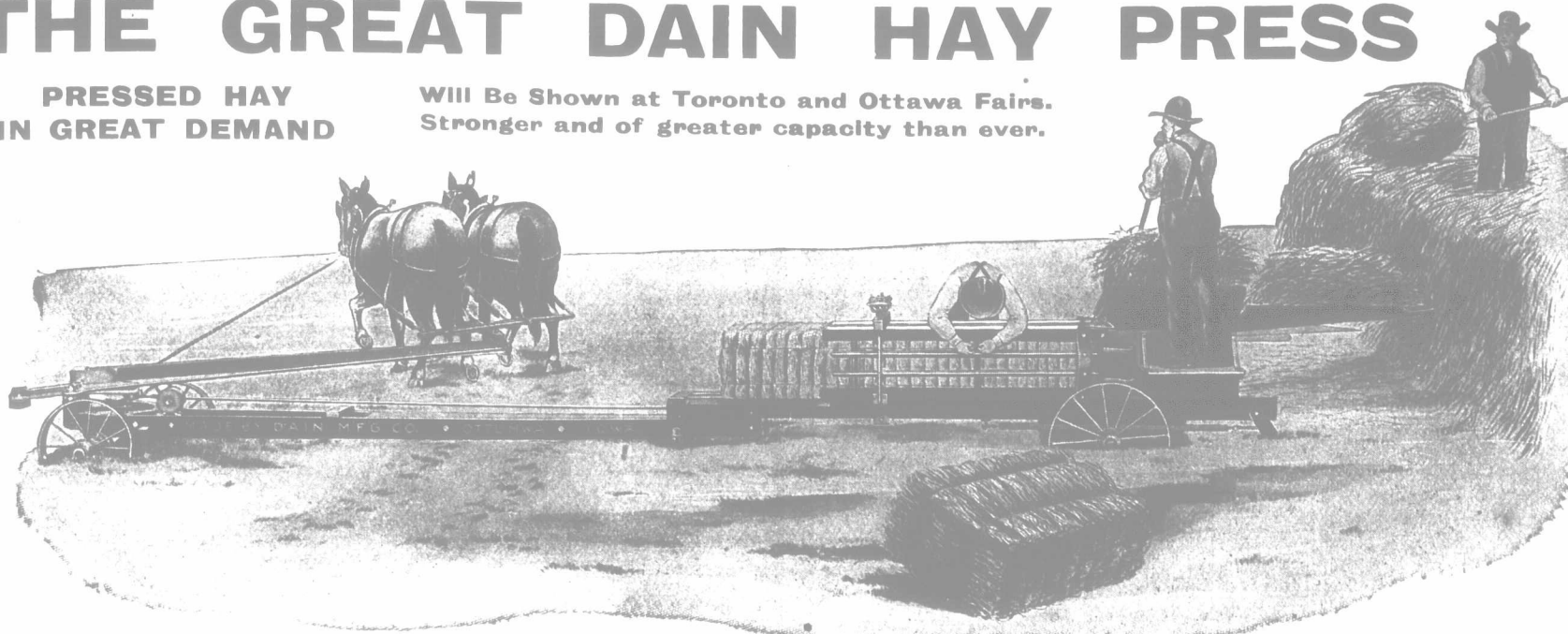


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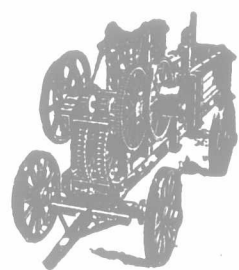
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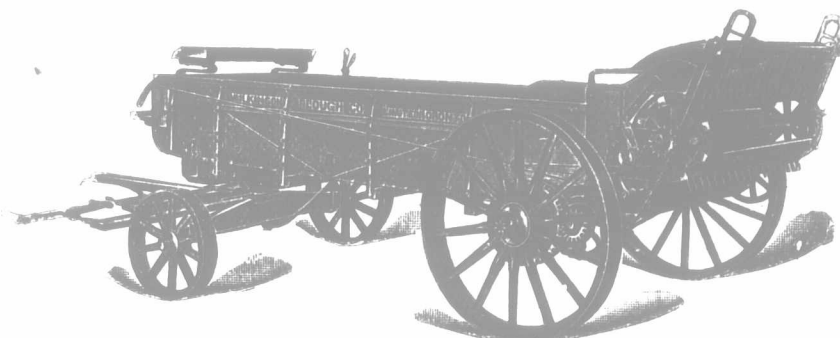
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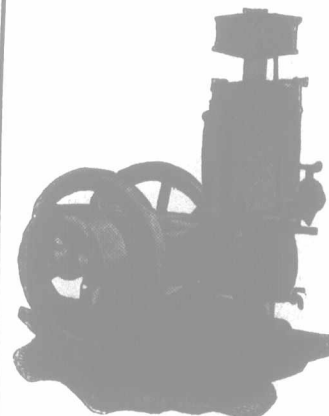
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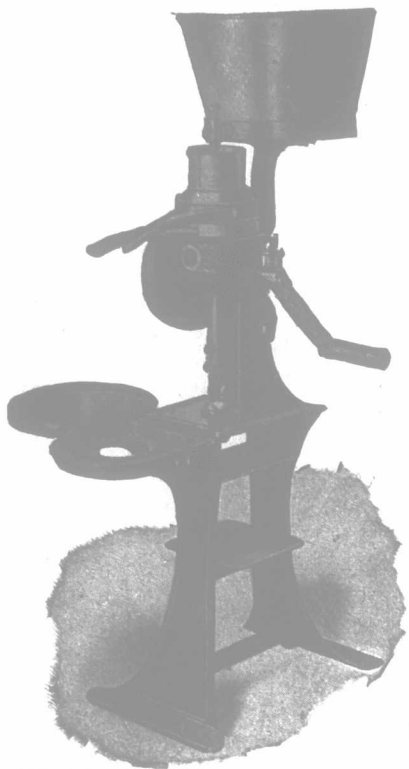
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# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established 1866.

Vol. XLII.

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LONDON, ONTARIO, AUGUST 29, 1907.

No. 779.

### EDITORIAL.

#### REGISTRY OF IMPORTED CLYDESDALES.

The representatives of the Clydesdale Horse Association of Canada are certainly entitled to congratulation and commendation on their success in inducing the council of the Scottish Association to give registration numbers with the export certificate in case of animals coming to this country. It was a good deal to expect from a people so generally considered conservative of their institutions, but their proverbial frugality evidently proved their vulnerable point in this emergency, as they could not well afford to continue a course which, in view of the action of the Canadian Association, would have seriously checked the trade of importation which is bringing so much "siller" to the coffers of their Association and the pockets of the breeders. And it was an act of diplomacy on the part of the Canadian contingent in taking advantage of the circumstances to raise the standard of registration, which was certainly desirable. While in point of economy, and for other reasons, there is much to be said in favor of the principle of delaying the granting of registration numbers until the animals have proved breeders there is certainly more general satisfaction to all concerned in having permanent numbers assigned at the time of registration, and it is just a question whether the system adopted by some breed societies of requiring the registration at or under the age of two years is not the wiser and safer plan. There was surely need of a shaking of the dry bones of the Scottish breeders in the matter of registration, and the new order of things should greatly strengthen the financial condition of both associations and place the directorate in a better position to advance the interests of the breed by offering special prizes and by other means which may in their wisdom be devised.

#### THE WESTERN WHEAT CROP.

For the Western Canadian farmer this is one of the most problematical seasons he has yet experienced. The spring opened late, the season continued backward, seeding was completed four weeks later than in average years, and growth has since been correspondingly tardy. The rains which usually came in June to stimulate growth and fortify the crop for the long, warm days of summer, were delayed until July, so that now (August 29th), at a time when the wheat crop is ordinarily ready for the binder, and some years much of it cut, there is just the first change of color in the head.

Apart from this circumstance of lateness, however, and the consequent impending danger of frost, the crops promise well, especially upon the western side of the prairies. Alberta is bearing large crops of oats and fall wheat, and is not as late as the Eastern Provinces. Saskatchewan fields, though late, give every promise of full yields, and are about 15 per cent. larger in acreage than last year, but Manitoba, especially the south-western section, has less evidence of a rich harvest, and there have been visitations of hail. Taking the prospects of the spring-wheat belt as a whole liberal estimates cannot place the total yields over 75 per cent. of last year's 90,000,000-bushel crop, which was exceptionally large, early and uniform. This year the erratic weather has resulted in producing a crop that is far from uniform, and cannot fail but be difficult to grade.

These are the crop prospects in Western Canada, but unpromising as they are, compared with the banner year of 1906, they are still much

brighter than those farther south, and are not much below the average for the past ten years. The peculiarities of the season have prevailed all over the continent west of the Mississippi River, but in the States the summer rains came too late to be of much benefit to the grain crops.

In the unpromising condition of the crop there is one great advantage, namely, the prices have been enhanced. At present the price of October delivered wheat is in the neighborhood of twenty cents per bushel higher than at a corresponding date last year, so that it is not improbable that the producers will realize as much for their crops as last year, and there is also the prospect that it will be handled cheaper and marketed more readily. In spite of these prospects, however, there is a general tendency following the example of the barks to handle money carefully and to make investments cautiously, which results in a predominating feeling of tight money. This attitude on the part of all classes is good for the country at large. Conservative progress is always to be commended, and Western Canada was tending to an expansion that was somewhat in advance of associated conditions and facilities.

#### MILK PLUS MEAT IN THE FARMER'S COW.

The statement by Professor Day in his interesting and suggestive contribution in this issue of "The Farmer's Advocate," that thoughtful breeders of some of the beef breeds are worrying not a little over the problem of combining in their cattle in a greater degree the milking with the beef-producing function is worthy of more than a passing notice and may well engage the serious consideration of professional breeders. It is a problem in which the general farmers of this country who are largely engaged in dairying, owing to the steadily increasing demand for milk and its products, are keenly interested. The days of successful ranching on a large scale in our Northwest Provinces being practically ended, owing to the grain-growing farmers having invaded the range territory to an extent which presages the extinction in the near future of a field which once promised to become a principal market for bulls of the special beef breeds, but has so far signally failed to realize that promise, and though doubtless mixed farming and the feeding of cattle will become more general in the West in years to come, yet the towns and cities of the new provinces will grow and be filled with a purchasing population, one of the staple needs of which will be milk and butter, which means feeding cows, and marketing their products. As more generally farmers become awakened to the fact, through the growing tendency to test and keep records of the production of their cows, that one good milking cow is worth more than two or three inferior producers, the demand for bulls bred from heavy-milking dams will logically become greater in ever-increasing ratio, and if the average farmer finds he cannot secure sires bred in milk-producing lines among the beef breeds, will he not be more likely to look to one of the special dairy breeds for his bulls, though he would probably prefer, as farmers of his class generally do, to keep a class of cows that milk well while in lactation and feed rapidly into beef when dry, while the steers they raise, fed on the skim milk, in calfhood will pay well for feeding into high selling beefs at an early age, thus disposing of the coarse grains of the farm which will be grown in larger proportion as the sensible system of crop rotation becomes more general, supplying manure to feed the farm and keep its producing capacity up to a profitable standard.

Presuming that the foregoing premise is sound,

the question of how the desired condition can be attained would seem to resolve itself into the need of action first of all on the part of the breeders themselves individually in seeking by selection and mating of sires and dams most likely to produce the ideal dual-purpose class of cattle. It is, we believe, generally conceded that, as a rule, the best milking cows even in the beef breeds are the best breeders, their progeny being strongest in constitution and the most kindly feeders, making the best use of the food they consume and developing into the most likely winners in the competition for truthness of conformation and quality of flesh from the standpoint of the butcher and purveyor of meat. This being admitted, is it not reasonable to suppose that a bull bred from a deep-milking cow will be most likely to transmit the milking tendency to his offspring, and that heifers bred from such cows, if intelligently treated during the first year or two of their lives, would, as a rule, prove better milkers than the average of their kind?

But it may as well be at once conceded that as long as the "nursery" system of allowing the calves to do the milking and their dams to submit to that process there will be little headway made in developing the milking function in any breed. On the contrary, is there not little room for doubt that there will be retrogression in that regard rather than progress, and that if indefinitely continued the system is liable to end practically in the milkless cow? Do not heifer calves to have any chance of making more than mediocre milking cows require to be fed for flesh and not for fat, and does not the best milking cow, milked from year to year by a calf, go back in her milk-producing capacity instead of improving? If this be true, need we wonder if the number of heavy-milking cows in some of the beef breeds is steadily growing less?

Is not the idea that calves raised on skim milk cannot be grown into mature animals of true conformation and superior fleshing capacity convincingly disproved by the splendid grade steers winning championships at our fat-stock shows, and which in the majority of cases were fed from the pail in calfhood? Is it not simply a question of keeping the calves in clean, roomy, well-ventilated sheds during the hot days of summer, and giving them a fair ration of bone and muscle-producing foods such as oats and bran, in addition to a liberal supply of skim milk; keeping them in growing condition; breeding the heifers to produce their first calf at two years old, milking a long term in their first lactation period; delaying the breeding for a second calf for a few months after calving, and thus fixing the habit of milking a long term? Such a start in the life of the cows, it would appear, should eventually make a great improvement in the milking capacity of females of any of the breeds. And this, with the system adopted of weighing and testing the milk of individual cows, weeding out the "boarders," and breeding from bulls bred from deep-milking cows, should in a comparatively short period palpably raise the milking standard of any herd. That this is not mere theory has been amply demonstrated in the development of the special dairy breeds. And the fact that in recent years the once prevalent notion that the ideal conformation of a profitable working dairy cow was a scraggy carcass with pin bones so prominent that one could hang his clothes on them, has been successfully discredited by the stern logic of the scales and churn, proving that beauty and smoothness of form may be combined with utility of the highest order in dairy work, would appear to make them all the more insistent competitors for popular favor, since, as before indicated, if the general farmer cannot find in the beef breeds a bull

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bred along superior milking lines he will be likely  
to look for a smooth one in a dairy-bred herd  
that will come near to his idea of the dual-pur-  
pose animal.

Is there not here a field for useful work on the  
part of the Dominion Shorthorn Breeders' Asso-  
ciation, with its bulky surplus, following the ex-  
ample of the English and American Associations  
in offering prizes for milking tests as well as for  
competition by inspection?

Professor Day's article is timely and full of  
food for thought on the part of breeders, and it  
is gratifying to be informed that at last research  
work in this line is contemplated by experiment  
stations which would appear to be peculiarly  
fitted for it, and that work in connection with  
some phases of the problem is to be undertaken  
at Guelph, but, as Mr. Day suggests, it is to the  
breeders primarily and principally that the farm-  
ers will look for the means of improving their  
cattle along the lines indicated, though we fancy  
they will fail to see the force of his remark that  
"in the face of these (breeding) problems experi-  
ment stations stand helpless," as they will hardly  
be excused for failing to grapple with them owing  
to the apparent difficulty of their solution.

## AGRICULTURAL LEGISLATION FOR B. C.

Veterinary Association Incorporated.—Among  
other legislation of importance to the farmers of  
British Columbia, passed at the 1907 session of  
the Provincial Legislature, was an act incorporat-  
ing the B. C. Veterinary Association. The in-  
corporation of this society enables the authorized  
and qualified veterinarians of the Province to pro-  
tect themselves from the competition and incom-  
petent services rendered by quacks and other un-  
qualified persons claiming to be veterinary sur-  
geons. In order, now, to practice in British  
Columbia as a veterinary surgeon, it is necessary  
to register, and in order to register it is neces-  
sary to be a graduate of a recognized veterinary

school or college, where the regular curriculum is  
not less than three sessions of six months each,  
or, in lieu of this, they must have been in regular  
practice in the Province for five years prior to the  
passing of this act. These regulations will pro-  
tect the farmer against the fraudulent or unquali-  
fied services of the so-called veterinarians who  
have gained their knowledge and experience by  
taking a six-months' course at a correspondence  
school, or at some college where degrees are ob-  
tainable in exchange for a small sum of money.

An Act to Protect Horse-breeders.—Legislation  
was enacted at the last session making it neces-  
sary for the owner of any stallion standing for  
profit or gain to post up copies of certificate of  
such stallion issued by the Provincial Department  
of Agriculture. The certificate above referred to  
will state whether the stallion is pure-bred, and  
registered. If not registered, whether one of its  
parents is pure-bred, or whether from pure-bred  
parents of different breeds. This act also allows  
the owner of a stallion to register a lien against  
the offspring of said stallion, any time within 12  
months after the service of such stallion, and the  
same will constitute a first claim on said off-  
spring. If payment of the service fee is not made  
before the first day of January in the year follow-  
ing the year in which the colt is born, the owner  
of said stallion or his agent, may at any time  
before the first day of May following, take pos-  
session of said colt or filly, and sell same at pub-  
lic auction, after ten days' notice has been given  
to the person in whose possession the said colt is  
found. This act comes into force on the first day  
of January, 1908. The question of examining  
stallions for hereditary unsoundness, and issuing  
certificates accordingly, was considered, but was  
not adopted, although it will doubtless come into  
effect before many years.

An Act to Aid the Establishment of a Pro-  
vincial University.—The Legislature, in its wisdom,  
decided, at its last session, to set aside two million  
acres of land for the endowment and support of a  
university. The act states that this university shall  
be non-sectarian, and strictly secular. It author-  
izes the maintenance of Faculties, including Arts  
and Science, Medicine, Law, Applied Science, and  
such other degrees as may be determined by said  
university. If the land is selected in some lo-  
cality where it is likely to increase in value, the  
revenue from this land should go a long way to-  
wards the maintenance of such an institution.

The foregoing acts were probably the most im-  
portant from an agricultural standpoint. Beside  
these, however, were several amendments to agri-  
cultural acts, of more or less interest to farmers,  
such as: Amendments to the Dyking Act; Line  
Fences and Watercourses; the Land Laws, etc. An  
appropriation was made for the employment of  
experts to investigate the irrigation question  
and report. This is an important matter, as a  
large part of the tillable land located in the  
mountain districts depend entirely upon irrigation  
for the successful growing of crops.

## OUR MARITIME LETTER.

THE TENDENCY TO OVER AND UNDER DO.

We had not the pleasure of listening to the ex-  
cellent address of Prof. Robertson at the Hills-  
boro Consolidated School, although we were  
booked to speak from the same platform on that  
occasion; but, if we have interpreted aright, the  
trend of his argument, it was a plea for the re-  
turn to the simple life, in education, as in every-  
thing else, as something ardently to be desired by  
everybody. We have noticed that this sort of  
exhortation, from the leaders of thought generally,  
is being of late very persistently made, and see  
that, not only in those matters which have a  
direct bearing upon the preservation and exten-  
sion of the human family, but in regard to all  
animal and vegetable life, the tendency of the  
teacher is towards simplicity. And this is not  
surprising. Luxury enervates wherever it is per-  
mitted to gain sway, and it has been taking a  
pretty free hand. The pampered man is good for  
nothing when the hour of stress and strain comes  
round, as it is bound to come some day to every-  
body. And so with the animals we are rearing  
and the plants we are cultivating so assiduously,  
and the trees about our homes; and, indeed,  
everything over which we exert influence. "Hot-

house production" is a term of contempt which  
the world uses for all those things which are  
forced into fruition under other than normal con-  
ditions. We find the weakly and diseased fleeing  
to the pure air of the mountains, and living under  
a regime which is as vigorous to-day as it is truly  
primitive; and this to escape the penalty of phy-  
sical and mental weakness transmitted by parents  
who yesterday departed from the simple ways of  
life in which they were brought up, and under-  
mined, in riotous living, the sound physique which  
was originally theirs; or who, themselves, failed  
to heed the warnings of the prudent, and wrecked  
early, by their own excesses, the most precious  
gifts of bodily perfection, which, once lost, can  
never be compensated for by anything else in the  
world.

A great lament went up some few years ago  
from the publicists of the Government Bureau that  
the cattle of the steading were awfully badly  
treated, because not housed and tended with all  
the care and tenderness employed with children.  
It is, indeed, as we have said, false kindness to  
unduly pamper the child; it has transpired that  
it is false husbandry to so treat animals either in  
housing or feeding, as if they were too tender for  
a breath of air in winter, or the ordinary rough-  
age of farm in the foddering. What has trans-  
pired? People, vying with one another, have  
procured the most highly-bred and not always  
best constituted cattle and horses, sheep, pigs  
and poultry, and so fed and coddled them as to  
have, in short, undermined their health, and  
vitiated, to a very great extent, their progeny.  
The country stock farms, too, have been the great-  
est sinners in this. The dairy cow was not so  
much as to have a breath of winter air let in up-  
on her; that was an economic sin not to be for-  
given, for it took a wealth of fodder to expatiate  
it, forsooth. Now those superheated herds are  
taking the outdoor or open-air cure for tubercu-  
losis, or have had to be slaughtered outright. And  
the spoon-fed stallions occupy a place altogether  
inferior to those which are treated after the fash-  
ion of ordinarily well-cared-for horses. Swine,  
sheep and poultry may be said to have been injured  
greatly, too, wherever normal conditions were in  
this way departed from notably. For years and  
years, to the great disgust of the old-stager, this  
movement has progressed towards a false delicacy  
of care, till its pendulum completed the last  
stretch of its upward motion, and now it is as  
persistently tending to extremes in the opposite  
direction, if certain signs are to be read literally.  
Still, there must be a virtuous standing-point be-  
tween these extremes. The Latin poet declared,  
with no lack of assurance, "Est modus in rebus,"  
—there is the proper way in everything; and the  
moralists of their past ages have equally well  
declared, "In medie stat virtus." Let us, then,  
beware of extreme conduct in anything.

Now, all this commenced with Dr. Robertson's  
address at Hillsboro. The papers report this  
experience in the simple life of poultry, as an-  
nounced by him, it having been tried at the new  
Ste. Anne's. If authentic, it must revolutionize  
poultry-keeping the country over. It seems too  
good to be true, at first blush; but perhaps our  
friend Eiford will vouch for it entirely. It is a  
return to the simplest life possible for fowls, all  
will remark; and it not really an extreme, such as  
we have been condemning, then the medium which  
we had come to regard as true in this poultry-  
keeping, has certainly got away off from its bear-  
ings, and must be quickly brought back and ad-  
justed as to the proper hygienic and economic  
center. Here is the quotation:

"At the Macdonald College, at Ste. Anne's,  
last winter, there were 250 hens living in colony  
houses, one board thick, with the thermometer oc-  
casionally 17 degrees below zero inside. When  
the water was frozen, a man would shovel in  
snow, or the hens would run out and pick it. They  
were fed on dry grain once a day, and were given  
no hot mash. They had to scratch for a living.  
About the middle of November they began laying  
eggs, and laid over 10,000 eggs by the end of  
March. One of our neighbors, a wealthy man,  
heats his henhouses with fuel. He had about  
two hundred hens, which were fed with bran, hot  
mashes, flavored, and perhaps perfumed. Never-  
theless, those hens did not lay enough to supply



Ratcliffe Forest King.

Shire stallion; foaled 1904. First prize and champion, Royal Show, 1907. Shown by F. Farnsworth. Sire Lockinge Forest King.

his town house, which used seven dozen a week. His man came to our place and bought from us the seven dozen of eggs, for which we charged him sixty cents per dozen. Our hens were educated hens, living by labor, under naturally rigorous conditions."

A. E. BURKE.

## HORSES.

### LAMENESS IN HORSES.

(Continued.)

#### A SPRAIN OR STRAIN.

A sprain or strain may be defined as violence inflicted upon a soft structure, with extension and often rupture of its fibres. A sprain may be suddenly caused by violent extension or stretching of soft structures, or by repeated slight stretching without a rupture of fibres, in which case the repeated tension produces an altered nutrition, which results in inflammation of the part, and finally to a softening of some portion of the fibres, by which they lose their toughness and become practically broken across. A slight sprain may be practically merely a bruise, while violent and excessive extension may rupture the whole structure of the part. Extension is not always the cause of a sprain; a muscle may be sprained by the opposite condition, viz., violent contraction, by which the fibres may be broken across or the tendinous fibres torn from their attachments at either end of the muscle. Sprains produced in this way are sometimes noticed as the result of the violent contractions of the muscles we notice when a horse is being thrown with hobbles or sidelines, or by violent efforts to loosen himself when down; in vain efforts to regain his feet when halter-cast, etc., etc. Sprain may be confined to the sheaths or fibrous coverings of the muscles (each individual muscle having a separate fibrous covering called a sheath), but these are of minor importance compared with sprain of muscular fibre, tendons or ligaments. Sprain of muscles or tendons are found in various parts of the body or limbs. A horse may sprain the muscles of his neck by falling on his head. If the fall be severe, the sprain may be complicated by injury or even fracture of some of the bones of the vertebra, and this may cause sudden death. The muscles of the back may be sprained by the hind feet slipping forward. When a muscle is sprained, the accident is succeeded by pain, swelling, heat, and loss of function. An inflamed muscle cannot contract properly, the loss of contractile power being in proportion to the severity of the sprain; hence, in some cases the symptoms simulate those of paralysis. The swelling of an inflamed muscle is very often succeeded by a loss of substance, a wasting away, called atrophy; and sometimes by fatty degeneration of its fibres, whereby they lose their red, fleshy appearance and assume that of whitish threads of fat. When examined by a microscope, the contractile tissue, called the sarcous elements, is seen to have been replaced by glistening oil particles, so that the function of the muscle is temporarily completely destroyed. If the whole muscle is involved, its contractile power no longer exists. This loss of power will, of course, vary

vessels and the exudate out into the tissues as a result of the same. Second, atrophy, or a wasting away of muscular tissue, from the pressure of this exudate upon the muscular fibres, and from loss of function. It is a well-known fact that if, from any cause, a muscle does not perform its functions, it will gradually become smaller from inactivity. If this want of function be accompanied by the pressure noted, the atrophy will be more speedy and better marked. Third, fatty degeneration of the sarcous elements, and permanent loss of contractility.

Treatment for sprain depends to some extent upon the seat of the accident and the tissues involved, but the general treatment may be said to be: First, locate the lesion, give rest, make comfortable in a box stall, if possible; give a slight purgative, as 6 drams aloes and 2 drams ginger, and feed lightly. If the sprain be very severe, causing complete loss of power of a limb or limbs, it is well to place in slings. Bathe the affected parts long and often with hot water, and, after bathing, apply an anodyne lotion, as 1 ounce laudanum and 4 drams acetate of lead to 8 ounces water, until the acute inflammation and soreness has disappeared, then change to cold water and camphorated liniment. If the lameness is persistent, apply a smart blister, as 2 drams each biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off the parts, tie so that the patient cannot bite them, rub the blister well in daily for two days; on the third day wash off and apply sweet oil; let patient loose now, and oil every day. It may be necessary to repeat the blister every month for a few times. The blistering not only has a tendency to cure the lameness, but, by stimulating absorption, tends to reduce any chronic swelling that may remain from organization of the exudate that was thrown out during the inflammatory stage of the lesion. "WHIP."

It is astonishing how conservative Eastern farmers are in the matter of economizing horse-flesh. Travelling through the country we often see a farmer and his hired man at work in the field, each plowing or doing other work with a two-horse team. Double up; work four horses abreast, and let the hired man earn his wage.

### PROGRESS IN HORSE-BREEDING.

It is only since the formation of Studbooks and Breed Societies, and the growth of the show system, says a writer in the London Live-stock Journal, that the rank and file of English horse breeders have seriously attempted to improve their own stock.

It was during the eighties that Britons woke up to the fact that they possessed several kinds of horses which were the best in the world, and that by keeping the breeds pure and recording the pedigrees much benefit would accrue to those who bred them and cared to take the trouble in the selection of parents and the keeping of records. The Thoroughbred had long been looked upon as the horse for speed, and the doings of the celebrated Eclipse had proved the worth of this breed for riding purposes. The General Studbook (Weatherby's) had then been in existence for many years. Another light-legged breed which could in those days claim to be an old-established one was the Hackney, noted for its knee action—"trotting of its own courage," as an ancient writer called it. The Royal Agricultural Society instituted a class for them at its 1848 show, but it was not till 1883 that the Hackney Horse Society was founded, and it is during the twenty-four years that an annual show of the breed has been held in London that the type has been fixed and the commercial value of prizewinners discovered.

During the past twenty years, the most popular breed of horses in England has unquestionably been the Shire (or old English cart horse), so named in the reign of Henry VIII., when the improvement of the breed really began. Others, like Bakewell, followed it up, and many pedigrees can be traced back nearly 100 years. Still it was not until 1883 that Shire horses had their own classes at the Royal Show, but a band of enthusiasts were working for the breed, and in 1877 the Shire Horse Society was established, and in 1880 the first London Show was held. The entries on that occasion numbered 110, and they have since reached 860; but, to prove the carelessness as to soundness which existed in those days, it is only necessary to say that a considerable number of those examined were cast by the veterinary surgeons, chiefly for sidebone. The growth of Shire-horse breeding was, however, phenomenal from the outset. He is above everything a cart horse, which will do the work of the farm for three or four years and then make a good price; therefore, it is not surprising that twenty years should see a great improvement in the breed, and hundreds of tenant-farmers breeding and exhibiting high-class specimens of it, and only last autumn the foals of farmers made as much as 150 gs. by auction. The value of Shires for draught purposes was quickly recognized by American and other foreign buyers, and about twenty years ago a large export trade in them developed, the number of export certificates granted in 1889 being 1,264, which was a capital performance for an eleven-year-old society. Since that time farmers from every English county have joined the ranks of breeders, and as they naturally want to participate in the honors obtainable for those who breed winning animals at the London and Provincial Shows, and as no unsound one is awarded



Copmanthorpe Performer (9670).

Hackney stallion, chestnut; foaled 1904. First in class and reserve champion, International Show, London, 1907. Sire Garton Duke of Connaught.



Linksfeld Champion (86401).

Shorthorn bull; calved May, 1903. Winner of first prize and male championship, Royal and Highland Shows, 1907.

a medal, it follows that sound parents have to be used to obtain the desired results.

Although twenty years of improvement may be claimed by all the leading British breeds of horses, none can equal the heaviest draft horse for making headway and finding supporters.

## LIVE STOCK.

### COMMENCING TO KEEP SHEEP.

Would you kindly give me what information you can regarding the raising of sheep. The writer has a hill farm property admirably situated for this purpose and contemplates purchasing a few hundred sheep, but has no knowledge whatever of the raising of these animals, and would like to hear from you with all information possible.

J. H. H.

In reply we would say first of all that in our opinion it would be unwise for one having no experience with sheep to buy the number mentioned until he had a year or two's experience in handling them. We would rather advise starting with 25 to 50 ewes and one or two rams, making the purchases in October and mating them in November, so that the ewes would produce lambs in April and May, five months being the period of gestation in the case of the ewe. If you have clover hay in stock the ewes would winter fairly well on that alone, providing they had free access to salt and to water, or even to snow, and were fed a quart of oats per day when within a couple of weeks of being due to have their lambs. If you have not clover hay or roots provided it would be almost necessary to feed them a little grain all winter to keep them in thriving condition and prepared to secrete milk sufficient to sustain their lambs. We would not advise buying pure-bred ewes to start with, as such probably could not be bought for less than \$15 to \$20 each, while fairly good grade ewes could perhaps be secured for one-third these prices. The ewes purchased should be from one to three years old, as ewes are seldom profitable to keep when over five years old, though some favorite breeding ewes have bred regularly up to ten or twelve years, or more. The age of a sheep is indicated by its teeth. At one year old the middle pair of front teeth are replaced by longer and broader ones, at two years old the four central teeth are broader and longer than the others, at three years there are six of those broad teeth up, and at four years eight, the full number of front or cutting teeth. After the fifth year the age of a sheep is known by the wearing of its teeth, though this is not altogether a sure guide, as a flock living on a poor pasture or on sandy soil will more quickly wear down its teeth so as to indicate a greater age than is real. The rams selected should be pure-bred, of the breed of your choice. A good strong ram lamb eight or nine months old would attend to 25 ewes, and for fifty ewes two ram lambs or one yearling or two-year ram should be obtained. If mutton be the principal product in view, or mutton and medium fine wool, rams of one of the Down breeds, Shropshire, Southdown, or Hampshire, would probably be most suitable, while if greater size and weight of flesh and wool be the object, then the Lincoln, Cotswold, Oxford or Leicester might more profitably fill the bill. It is wise to continue from year to year using rams of the same breed as you start with, as by this course the best of the ewe lambs being retained, for the purpose of increasing and renewing the stock, the flock will with each generation become moulded more and more into the character and appearance of the breed to which the sires be-

long, and will breed more true to type until the flock will, uniformly, have the appearance of being pure-bred. If, after a few years' experience in grading up a flock your success has proved satisfactory, and you are ambitious to establish a pure-bred flock, a few pure-bred ewes may be purchased, and a record of their produce be kept by means of numbered ear labels. It is wise, even with a flock of common or grade sheep, to have them marked uniformly, either by notches in the ear or by the use of metal ear labels, with the name or initials of the owner stamped upon them. The lambs' tails should be all docked, and the ram lambs castrated at the age of two or three weeks. This is necessary to the cleanliness and comfort of the sheep, and the male lambs will fatten faster and give much less trouble if so treated at the early age mentioned. About the only other special care needed by the flock is dipping the lambs in a solution of one of the proprietary dips in spring, a few days after shearing the older sheep, to destroy ticks or lice, and either dipping in or pouring on the same solution in the late fall or early winter to ensure against the flock being troubled with the same vermin during the winter. It is a wise provision to have a small cow-bell or two in each flock or division of the flock, as a protection against roving dogs, as it is believed to have the effect generally of frightening the intruders, and, failing in this, might, by sounding an alarm, bring the owner or caretaker to the rescue.

### MORE ABOUT MUSLIN-CURTAIN VENTILATION.

Believing, as we do, in the presentation of all sides of every question discussed through our columns, we quoted, on page 1327 of our issue, August 22nd, a condensed extract from an article contributed to Hoard's Dairyman, by Prof. F. H. King, of Wisconsin, who had been investigating the muslin-curtain system of ventilation in the stable of F. B. Lord, Cedarhurst, N.Y. Prof. King being the father of what is known as the King system of ventilation, which is probably the best and most scientific of any heretofore in use, it is not surprising that he should be a trifle prejudiced in his conclusions regarding the simple muslin-curtain system, and we fear that such is the case, for some of the arguments advanced by him against the curtain plan appear to be characterized by an obtuseness altogether surprising. However, it is not for us to undertake at this stage to champion the muslin-curtain system. It is fitting that the criticisms should be met by those who are in a position to answer them from experience and first-hand observation. Meantime we continue to attach a good deal of weight to the testimony of poultry men and stockmen who have had experience. The fact stands out that in poultry-houses muslin-curtain ventilation has proven such a practical success that, as Prof. Jas. Rice, of Cornell University, said to us recently in an interview, authorities have come to regard it as an established feature of poultry-house construction. If practicable for poultry-houses, why not for other stables? We have already published a number of contributions of experience from dairymen and stockmen, but more are in order, and we give one below. In a paper prepared by the noted poultry writer, A. F. Hun-

ter, of Massachusetts, the following letter is quoted. It was sent to Dr. Santee, U. S. Department of Agriculture, Washington, D. C., by a stockman who had tried the new system at Dr. Santee's suggestion:

"The condition of my stock, plant and equipments was such as to merit good report, score ninety, when you first visited me on December 22, 1906, and the suggestions which you then and since have so willingly given me were taken advantage of to the end that when you again inspected my establishment here on February 9, 1907, you felt that conditions were so much improved as to merit excellent report as to general sanitary conditions, the score being ninety-five. This betterment was chiefly brought about by increasing the light and ventilation in the barn, by putting 90 square ft. of muslin curtain, such as you suggested, which has been somewhat in the nature of a revelation here, and my experience is below given for your particular information, and through you for the benefit of all who may yet be in doubt. After satisfying myself from your statement of experience that the curtain was all right, I desired to try it, and taking my manager, Colonel A. B. Marshall, a practical and experienced architect and builder, along, I indicated to him where I wanted the side walls cut, and frames, with muslin only on, put in. Well, he looked at me, and after assuring himself that I really meant it, sat down to advise against such a really inhuman course, explaining his belief that it meant subjecting the cattle to unnecessary exposure to the cold winds, which must blow through the mesh of the muslin during the winter, and indeed freeze them. However, I persisted that they must be tried, and they were finally put in.

"The first two or three nights thereafter, being mild weather, caused no alarm for condition of cattle, but the morning of the fourth day saw the thermometer down to 7° F., and the wind blowing a gale, when, at 5 a.m., Colonel Marshall, with his corps of men, approached the barn with feelings akin to fear and trembling, but on entering he was agreeably surprised to find the conditions much more ideal than ever before; the cattle comfortable in a suitable temperature of dry, healthy atmosphere, free from drafts and dampness. The manager, still doubtful, approached the most exposed curtain, that facing the north-north-west wind, which was forcing it inward by a strong outward attack, but he could hardly perceive the cold, and had to resort to a method he learned on the plains, of wetting the finger and holding it up to detect the direction of the wind, when at two inches from the curtain he thus discovered the admission of air; but that being there assimilated at once with the temperature of that within, was constantly driving out the dampness and foul air, and furnishing the barn with pure atmosphere without noticeable cold, and in the most admirable and economical manner. That morning when the Colonel met me he was, and is, an ardent advocate of the muslin curtain, and will say so to anyone, for both barn or chicken-houses, but his conviction is not without chagrin, that he, a practical builder of wide experience in the use of muslin windows in new buildings in extracting dampness, so that mechanics may continue their work on the inside in the most approved manner, should have been unwilling to admit its utility on the farm until after a practical demonstration."

Every farmer in Canada needs "The Farmer's Advocate."



Sweetheart.

Shorthorn cow, first and champion, Royal Show, 1907. Exhibited by Lord Callrope.



Juniana Erica.

Aberdeen-Angus cow; first and champion, Royal Show, 1907. Owner, J. Ernest Kerr.

**GASOLINE FOR STOMACH WORMS IN SHEEP.**

Editor "The Farmer's Advocate":

Having been a subscriber to "The Farmer's Advocate" for a number of years, I want to thank you for the valuable reading it contains every week. One thing which caught my attention recently was an article headed "Stomach Worms in Sheep." My sheep and lambs have been dying off for the last two years, and I could not tell the cause until I saw that article, which described them exactly. I used the gasoline treatment, as described, and my lambs have done well ever since, as I have not lost any of them. Will they need another dose in the fall? S. J. WATTS, Frontenac Co., Ont.

**A FEW PROBLEMS IN CATTLE-BREEDING.**

Many and varied are the problems facing the breeder of live stock. It is not the intention of this article to attempt a solution of any of these problems, but rather to call attention to a few which face the cattle-breeder, with a view to aiding the beginner to understand more clearly what confronts him, and perhaps stir up some veterans to give the public the benefit of their experience.

One of the perplexing problems facing the breeder of cattle is the question of fashion in pedigrees, and he may find himself sometimes driven to follow a course which his reason tells him is not the best. Fashion has had its sway among horses, cattle, sheep and swine, and while it has had a more powerful influence in some breeds than in others, there are few breeds which have not, at one time or another, come more or less under its spell. At the present time there is a tendency in some quarters to rebel against the decrees of fashion, and a good deal of discussion regarding the matter has occurred of late, especially among American Shorthorn breeders. Just what will be the outcome, it is hard to say, but it is useless for the small breeder to attempt the overthrow of established customs, or prejudices. If anything is accomplished in gaining recognition for what are commonly called "plainly-bred" cattle, it must be through the concerted action of some of the most influential breeders. It will not do to be too radical in such matters, and it must be remembered that the fashions of to-day are usually based upon a pretty sound foundation, namely, actual merit. It does seem too bad, however, that so many really excellent cattle should be slightly passed over and dubbed "plainly-bred," no matter how many sires of unsurpassed breeding and excellence appear in the pedigree, merely because the nearest imported cow appears a long way from the top of the pedigree, and does not boast any of the blood which is most popular to-day. Surely the crosses subsequently introduced have long since obliterated any trace of the original blood; and if the sires have been wisely chosen, why should such an animal be discounted? When we learn to study the law of heredity intelligently, and are able to understand clearly just what a tabulated pedigree means, we shall be apt to lose a good deal of respect for the average breeder's method of deciding upon the merits of a pedigree. We sometimes forget that, no matter how "blue" may be the blood employed, there

can be no sound work done in animal breeding which is not based upon utility. We are also apt to deal too much in names, and lose sight of the merit which made those names famous. If the merit has come down with the names, then we certainly have something to be proud of; but if much if not all the merit has been lost in transit, of what value to us are the names, so far as improving our stock is concerned? So long as certain families of cattle show superior merit to all others, it is only right that they should meet with popular favor; but when another family demonstrates its ability to produce equally good animals, why should it not be accorded equal favor? In the face of these problems, experiment stations stand helpless, for it is only the breeders themselves who can work out the solution.

Another problem of great importance is the development of milk production among beef cattle. All are agreed that the ability to give a large flow of milk is a valuable accomplishment on the part of any cow, and it is a very common thing to find the best milkers the best breeders in the herd. But how is the milk-producing propensity to be developed? How much depends upon breeding, and how much upon management? If it is mainly a question of breeding, where are the bulls to be obtained to assist with the work? It is hard enough as it is for the breeder of beef animals to secure a bull good enough to head his herd, without having to restrict his selection to milking strains. If, in developing the milking qualities of our beef cattle, we lose much of that tendency to fatten, which has taken generations to develop, would such a result be a really desirable attainment? These are problems which are worrying many thoughtful breeders, and which are frequently lightly discussed by people who fail to look at all sides of the question. There is room here for research work on the part of experiment stations, and work in connection with some phases of the problem has been planned for immediate undertaking at Guelph. It is a large order, and means years of patient work, and probably more space than we can afford, to carry out the work thoroughly. The public need not look for results for some years to come, and it is quite possible that the main issues may never be settled. At the same time, there are many minor points of interest upon which some light may be thrown, and thus make the enterprise worth while.

Closely associated with the problem just mentioned, comes the question of the dual-purpose cow. We know that such cows exist, but are they more desirable or less desirable than the special dairy cow?

Also, what about the man carrying on mixed farming, under conditions not the most suitable for making the largest profits out of dairying? There are so many varying conditions, and, as in all other live-stock investigations so many variations arising from the individuality of the animals employed, that it seems almost hopeless to attempt anything like systematic investigation. But, possibly a little light is better than no light, and there are probably enough side issues to make the undertaking worth while. Be that as it may, we think we can safely promise the public some work along this line, though, as in the other case, years will be required to get results.

Space will not admit of the introduction of further cattle-breeding problems in this article, but the ones mentioned are sufficiently serious to furnish food for thought for some time, and we would like to hear from anyone who has worked out even a partial solution of any one of them.

Ontario Agricultural College. G. E. DAY.

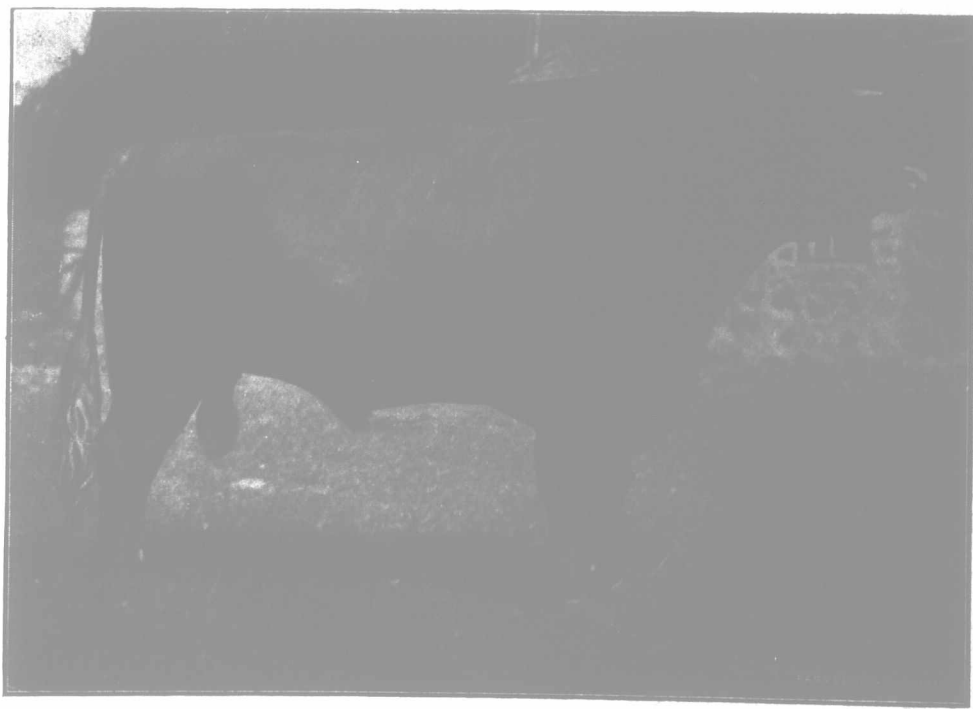
**THE FARM.**

**GASOLINE ENGINES FOR FARM USE.**

That the modern gasoline engine is the ideal power for farm use under most circumstances, has been recognized ever since its appearance as a commercial success, and its use at the present time for almost every job which can be handled by power to advantage, shows that progressive farmers appreciate its value. In some situations an engine can serve its purpose best by being installed as a stationary plant, and the different jobs reached by means of line shafting, but this always requires the use of a larger engine, because of the extra work of running the shafting and belting. Smaller-sized engines can be semi-portable; that is, mounted on a skid, which can be hitched to and readily moved from one place to another, anywhere around the farm. Where larger sizes are required to be moved around, it is necessary to mount them on trucks, and very complete outfits of this character are in use very successfully all over America.

There is no farm work, from running a cream separator to threshing and plowing, that they are not doing successfully, when intelligently cared for. The adapting of the gasoline engine to different farm purposes has been a gradual evolution from the original heavy engines, with large water-tanks and outside gasoline tanks, while at present engines for farm work can be had very much lighter in weight and with special cooling devices for water that makes it possible now to run on a few pails of water, where it formerly took the same number of barrels. In almost all cases where the engine has to be moved around the gasoline is now carried in the engine base, except in the largest portable and traction sizes, when the gasoline tank is carried on the steel frame. The past five years has seen a great advance in the quality of the detail parts, particularly in the ignition, which has always been the weakest part, and has been the cause of a large part of the trouble that users have experienced in the past. Batteries are better; the ignitor itself is better made than formerly; spark coils are more economical of battery current; piston rings are more carefully made, and hold the compression better; and general designs are better, which has allowed of more compression and higher speeds, which means more power than formerly from the same-sized cylinder.

As stated, one can find engines now at work on any of the farm jobs. In pumping water, there are all sizes of outfits, from the 1½-horse-power combined engine and pump, up to the largest sizes for irrigation. In dairy work, they operate separator, churns and butter-worker. It had been a difficult matter to properly run a cream separator with a gasoline engine of the ordinary type, for the reason that, with the "hit-and-miss" system of governing, each impulse was felt at the separator, by causing a very uneven speed. The introduction of the automatic friction-pulley, which can be attached to any make of separator, has overcome that drawback, and by its use an even speed is maintained, no matter how uneven the regulation of the engine may be. For saw-



Royal Bruce (imp.) =55038= 273853 (12023).

Shorthorn bull; calved Jan. 19th, 1904. Property of R. J. Doyle, Owen Sound, Ont.



ing wood, a good honest 3-horse-power engine can keep three or four men busy, and will saw all they can handle in a day. For chopping and grinding grain, the same 3-horse-power outfit is capable of handling from 10 to 16 bushels per hour, according to the character of the grain and how fine it is ground. It will be found that an 8-in. chopper is sufficient for that amount of power, as a larger one would only be a drag on the engine. There is not much gain for the farmer in using a large chopping outfit, for, by simply running the smaller one a few hours longer, just as much work is done, and there is a good deal less cost for the outfit, and the smaller one is lighter and easier to move around. When it comes to running an ensilage cutter or thrashing, then the larger engines must be considered, and the proper size of engine depends on the size of the machines to be run, and the attachments used on them. Through Eastern Canada, there are not likely to be used as heavy engines as in the West, where threshing machines are larger, and where a good many traction outfits are used for both threshing and plowing.

The percentage of farmers using gasoline engines is larger in Western Canada than it is in the Eastern Provinces, but that is largely due to the fact that the ground has been more thoroughly canvassed, and the selling agents have been more aggressive than in the East. It would seem as if the large amount of dairying and feeding done in the East would cause a demand for such a convenient power as the modern gasoline engine, but it is a fact that the Eastern farmer is just waking up to the importance of a power that helps out to such a large extent on the problem of farm labor. The fear of not being able to understand the engine or to operate it successfully has probably kept a great many from purchasing, and salesmen have very unwisely endeavored to impress people with the fact that all that is necessary to know about an engine is to start it and stop it; that they require no attention, and only need to be kept in gasoline and cylinder oil.

In the writer's opinion, this has done the gasoline-engine business more harm than anything else. The gasoline engine does require attention, and the more intelligent that attention is, the better results it will give; but there is nothing about one that a person of good ordinary intelligence cannot learn if they give it serious consideration and are willing to spend a few hours in trying to understand the principle on which a gasoline engine works, and thoroughly study the instruction book usually supplied. It is a thing to remember that one-half the successful operation of an engine lies in the man who looks after it, and it is a good plan to study over any little trouble that may arise and try to figure out the remedy for yourself before sending for an expert. By trying to help yourself out of a difficulty in that manner, you are going to learn more than in any other way, and it will never be forgotten, while what an expert may tell you is often not remembered an hour after it is heard.

As stated, no intelligent farmer need have a fear of not being able to successfully operate a good gasoline engine, but in order to get the best of service from it, he must make up his mind to give it some good care and attention, and the return will be well worth the time spent on it.

In choosing an engine, there are so many points to look after that it will have to be considered in a separate article, to appear in a future issue.

E. S. COOPER.

#### THE INSTALMENT PLAN.

I was approached the other day by an agent who wished to make a sale. "You need not worry about paying," he said. "Will give you easy terms, whereby you can make us monthly returns. Your credit is good, and you can make the terms as small as you like." I was not keen to purchase, and dismissed the agent in order to have time for a little figuring. The result was that I discovered that it would pay me twice over to purchase on a cash basis rather than accept the agent's enticing terms. The terms he offered, while they looked easy, were really terms demanding a high rate of interest. Further, on making some inquiry I found out that many who had tried the monthly instalment method of payment had come to realize that they were paying dearly for any seeming advantage, and that they felt themselves continually reminded that they were in debt. In not a few cases people had become discouraged, and had abandoned payment altogether, much to their loss.

The best thing for one to do is to keep out of debt, and to buy and sell on a cash basis. It will mean self-denial, but it is astonishing what a little ingenuity and economy will do for one. Indeed, the average farmer will do well to remember and to act upon the advice given by the Old Country adage to his son: "Jock, gang in debt for but a thing ding." No one can afford to go into debt for anything, but does not give a reasonable assurance of a fair return. Food, land, clothing and implements must be had, of course, but a little consideration and contriving will reduce one's actual necessities to an astonishingly small minimum. Paying in cold cash is better for both buyer and seller, and waiting till one can do so will save many an anxious hour, and many a discom-

ment; whereas the easy payment system usually means either the purchase of something one does not want, or paying too much for one's purchase. It is better to get on in what the Scotch call a canny way than to invest readily and extensively in things that are handy in their way, but which are not really necessary. It is wonderful how far brains and patience can make things go. The newest thing is not always the best. Let others do the experimenting. It is the agent's business to sell goods, but it is the farmer's business to buy only what he puts to a paying use, and on terms that are the most reasonable. It is so easy for one to sign his name to a contract: pay day looks far off, but it is sure to come, and with it has come in many instances a deal of tears and heartbreak.

Wentworth Co., Ont.

O. C.

#### THE RESTLESS COUNTRY BOY.

Restlessness is a characteristic of all healthy boys, and should never be a source of worry. A young colt may be perfectly happy if only he have plenty of grass and shade and water and liberty. But a boy with forming hands and a contriving mind is restless because he finds stirring in him the possibilities of the infinite. It need not be wondered at, then, if the country father finds himself wrestling with a very live problem when he undertakes to guide his growing boy.

There are various things that contribute to the restlessness of the country boy. In the first place, his familiarity with country life has dulled his senses to its charm. The delights of rural surroundings, by reason of his daily contact with them, have become mere commonplaces. On the other hand, he sees the town only occasionally, and knows professional life only from the outside. The preacher, to his way of thinking, works only half an hour a week; the doctor does little but drive behind a brisk-stepping horse; while the clerk has a delightful time handling light goods, sheltered from the hot sun and the storm.

Further, the boy is exposed to the mischievous effect of the class of literature that belittles country life. In

ing for the farmer what is worth more to him a thousand times over than any bank account in the world, the love and service of his boys and girls. O. C. Wentworth Co., Ont.

#### SYSTEM OF LAND TENURE THE CURSE OF BRITISH AGRICULTURE.

The British land system—namely, that of landlord, farmer, and laborer—which meant three separate castes, had broken down in every other country in Europe, had broken down in Ireland, and was breaking down in England. To it was mainly due the startling rural depopulation, said Jesse Collings in an address before the British Association for the Advancement of Science, as reported in the London Times. The conclusions at which he had arrived were: (1) That the policy of placing trade and manufactures above agriculture was a wrong one; (2) that an amount of capital (including the personal labor of the cultivating owner and his family) properly invested in land yielded a far greater return to the community than a similar amount invested in commerce and manufactures; (3) that, if health, physical strength and an increase of the population were to be reckoned as national assets, agriculture enriched the nation far more than manufactures possibly could; and (4) that the home trade, resulting from the development of agriculture, was larger, more certain, less fickle, and more valuable than the foreign trade. Agriculture must not be regarded simply as any other trade, but as the basis of all trades. Leaving the larger branches of agriculture—the raising of corn, cattle, etc.—and turning to "small cultivation," it was to be observed that we annually imported some sixty million pounds' worth of smaller articles of food, such as butter, cheese, bacon, eggs, poultry, fruit, vegetables, etc., and that those articles might be wholly or mainly

produced at home if our land system were what it ought to be. We had the land, and we had the men standing idle or only partially employed. Many country-bred men now employed in towns would gladly return to the villages (for which they were better fitted) if adequate and reasonable facilities were offered to them. "Occupying ownerships" ought to be the governing principle of our land system instead of being a mere incident in it. To facilitate the carrying out of the suggested scheme of small occupying ownerships, the author strongly advocated (1) a better system of rural education, and (2) the establishment of co-operation among the cultivators both for the purposes of buying and of selling. But co-operation was the natural outcome of small ownerships, but was not readily adopted by yearly tenants, who were often here to-day and gone to-morrow.

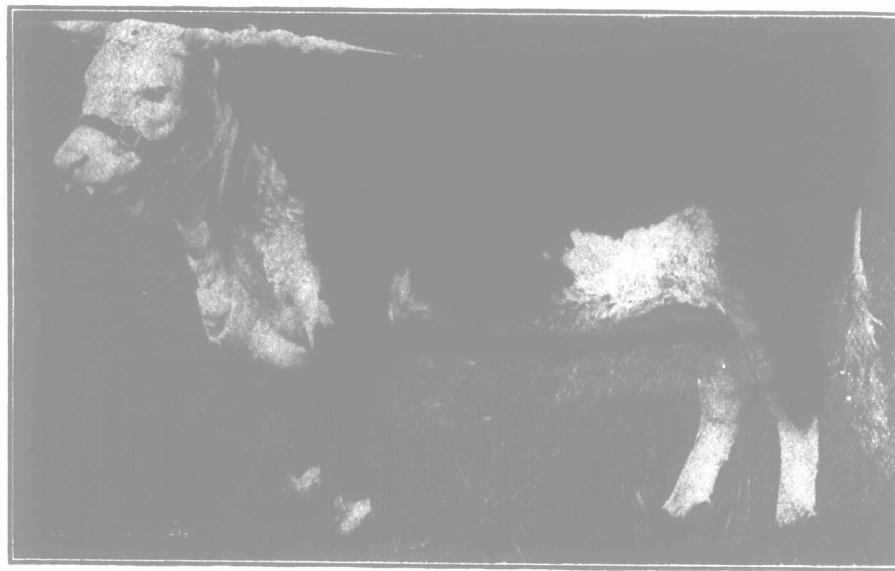
#### CORN HARVESTING.

The silo is undoubtedly becoming the popular Canadian method of caring for the corn crop, but in many cases good farmers who make a specialty of rearing corn primarily for the ears, continue to dry-cure the stalks. In both methods hand cutting is rapidly being superseded by the improved corn harvester. An interesting bulletin on this subject has been prepared by P. J. Zintheo, an expert in farm mechanics, of the U. S. Department of Agriculture. Beginning with the old corn hook, he traces the evolution of modern harvesting machinery down to the present, figures out the cost of different methods with their comparative advantages, and draws therefrom the following conclusions:

Summarizing the comparative returns per acre of husking corn from the field, of cutting and feeding from shock, and of cutting and shredding by the various methods, it is found that the net value of the crop is \$17.93 for husking by hand and leaving the stalks standing in the field. This is obtained by adding to the net value of the corn 55 cents per acre for the stalks and subtracting the cost of husking by hand.

By allowing 25 cents per acre as the value of the fodder in field where a corn picker (a machine for picking the ears off the stalks in the field instead of by hand) is used, and adding this to the net value of the corn and subtracting \$1.80 per acre for picking with the machine, we derive the net value of the crop of \$17.81 for this method of harvesting, which indicates a small loss per acre as a result of using the corn picker.

The net value of the crop by feeding the stalks whole (\$23.18 for hand husking, \$23.50 for harvesting with large machines, and \$23.62 for small machines) is ob-



Princess Beatrice.

First-prize two-year-old Hereford heifer, Royal Show, '07. Shown by W. B. Tudge.

too many of our papers and books for young people the hero is represented as one who finds no scope for his talents amid farm surroundings, and who comes to his own only upon leaving the old home for a life of adventure. The country boy feeds on this, and soon comes to believe it.

Again, as "The Farmer's Advocate" has been reminding its readers, our school system does not foster a love for farm life. However we account for it, our schools do not encourage our boys to make their living from the soil. Our high schools and universities point the way to the surgery, to the chemist's laboratory, to the mine, to the pulpit, to the bar, or to the legislative hall, but in how many cases is there a serious effort made to teach the students the wealth of the sun-swept valley and meadow, and the satisfaction that comes to mind and heart and fortune by a pursuit of agriculture, the most ancient as it remains the most honorable of the arts? A father need not be surprised to find his son ill disposed to follow in his footsteps if he allows him to be taught for six hours in the day, and for five days in the week, that farming is a poor, sordid and unremunerative occupation.

The cure for this restlessness cannot be wrought in a day. A permanent change in conditions is brought about very slowly, but the farmer must make it his business to see that the change is being brought about. In the meantime let him use all the tact, born of his love and good sense, to show his son the advantages amid which he has been reared. As best he can, let him make his home and work attractive. A little money spent in music and pictures and magazines, and in encouraging his children in carrying out experiments in poultry, in roots, in dairying, or in any farm work in which they take an interest, will be an investment that will yield a tenfold return. A house full of company of young friends brought in occasionally may rob the farmer of some hours of needed rest, but they will do him a little to relieve country life of its monotony, and do a great deal in the way of preserv-

tained by taking the total value of the corn and fodder and subtracting the costs of cutting and husking by hand, cutting with sled harvester and husking by hand, and cutting with corn shocker and husking by hand.

The net value of the crop by utilizing the fodder in the shredded form (\$24.68 for hand harvesting, \$25.45 for harvesting with large machines, and \$26.45 with small machines) is obtained by assuming a greater value of shredded fodder over whole cornstalks of 33 per cent., adding this value of the fodder to the value of the corn, and subtracting the various costs of cutting, husking and shredding the corn by the various hand and machine methods.

Conclusions.—The farmer who would secure the full value of his corn crop should secure the fodder with as much care as he gives his clover hay, harvesting it at the proper period, and not allowing it to become ruined by rain or frost. By the use of the proper machinery for harvesting the corn crop, the farmer may considerably increase the net income from his crop over hand methods of harvesting the ears and wasting the stalks, and still allow full price for the use of the different machines.

There is a limit beyond which it is not profitable for a farmer to invest in corn-harvesting machinery, and the amount of work to be done by the machine each year should be carefully considered before a purchase is made.

**LIGHT AGRICULTURAL MOTORS.**

Many as are the labor-saving appliances now to be found upon the farm, yet another is about to make its debut upon the prairies of Western Canada, viz., the light agricultural motor. Farmers everywhere may be heard discussing the subject, and, judging from what one hears, something very great is expected of but little," writes A. Burness Greig, in "The Farmer's Advocate and Home Journal," of Winnipeg. While his remarks apply specially to Western conditions, they are not without interest in the East as well. It is good to know what Westerners are doing.

On the surface, there does not appear to be much of a problem to solve in producing a satisfactory light agricultural motor; but, on closer investigation, it will be found that there is more in it than meets the eye.

Although many of these small tractors are now in use in European and other countries, giving satisfactory results, it is in Canada that we are interested, and where a practical demonstration of their capacity must be made, for it does not follow that what will give satisfaction in other countries will meet requirements in ours.

Now, what is a light agricultural motor? When does it commence to come under this category, and when does it cease? This is for the user to settle, not the manufacturer.

The light agricultural motors thus far introduced into Canada are a sort of a compromise between a heavy automobile and a miniature traction engine. The aim of the manufacturer would appear to have been to produce a machine with the maximum of power and the minimum of weight, irrespective of the adhesion obtainable upon the ever-varying classes and conditions of soil it may have to travel over. What is there to be gained by having a very powerful engine, if the grip upon the land is not sufficient to absorb the full power developed?

The problem before us is an entirely different one from that of the automobile or motor-truck, and the sooner this is fully realized by both user and manufacturer, the better. We should rather commence with the ordinary traction engine, a

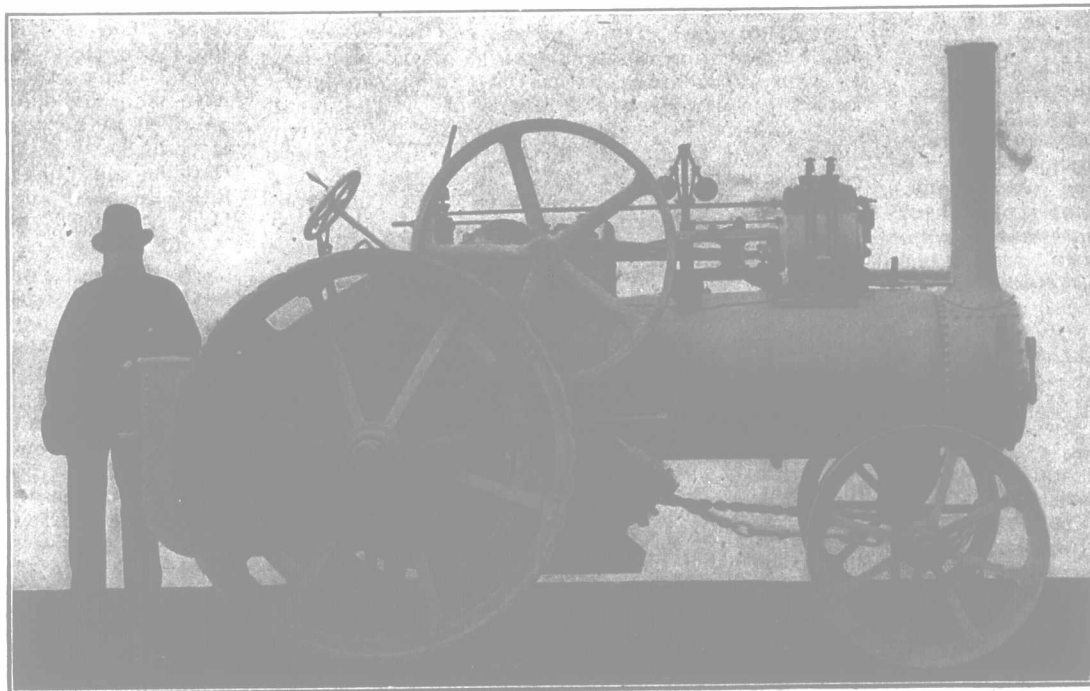
machine which for many years has undergone the most severe tests upon all classes and conditions of land and roads, and endeavor to arrive at something considerably lighter, though still powerful, be the propelling power by steam or the employment of the internal-combustion engine. The light agricultural motor is in reality nothing more nor less than a small traction engine of high power, the attainment of which is due to the running speed of the engine, increased pressure, and the employment of materials of the very best quality.

There are two classes of power in demand upon the farm, viz., tractive force, and belt power. Which of these is to form the basis upon which the power of engine is to be determined?

The separator would appear to be the ruling factor. This must be driven at its proper speed in order to give good results, but in the case of the plow, seeder, binders, etc., the load can be diminished or increased, to suit the tractive force of the motor. Assuming, then, that the size of the engine has been determined, the next point is to be sure that the motor has the necessary weight to enable the full power of the engine to be utilized.

Besides weight, there are other methods of obtaining a better grip on the ground. Grabs are made use of, which increase in width, and some machines have all the wheels driven. The two former are indispensable, but whilst the driving of all wheels will doubtless give increased grip of the ground, it means greater complication, increased wear and tear, and no small amount of the power of the engine will be absorbed by the friction of the extra working parts.

(Continued on Page 1386.)



An English Steam Motor for Farm Work.

**WOODEN HOOPS FOR SILO PREFERRED.**

Editor "The Farmer's Advocate":

I notice in "The Farmer's Advocate," August 8th, a reader wishes to know how to build a silo. Your directions in reply are all right, but I would very much prefer wooden hoops. My silo, 13x24 ft., has 5-ply 4-inch elm hoops, which I think are a great advantage. I have the only wooden-hoop silo in the vicinity where I live, and think they are much ahead of iron hoops. There are a number of silos here, mostly with iron hoops. My neighbors have quite a time trying to keep their silos tight in summer. When they get loose they swing either one way or the other; several have blown down altogether. My silo is as good to-day as when it was built three years ago. Your description, given a few weeks ago, as to making wooden hoops is correct. I would say, make wooden hoops. I intend to sheet my silo outside with matched lumber, which will make it perfect, and protect the hoops from rotting.

JOHN A. DODDS.

**THE CHEMISTRY OF FALL-WHEAT FLOUR.**

Editor "The Farmer's Advocate":

With reference to the inquiry in your communication of the 30th ult., I would say that the general principle, as enunciated by your correspondent, namely, that fall-wheat flour is superior to spring-wheat flour for pastry-making, is correct. The reason is that fall wheats give a flour of less strength than spring wheats. Such flour, speaking broadly, is of low gluten content, and is better suited to pastry-making than the stronger flours which result from the milling of spring wheats. Breadmaking, on the other hand, requires a strong flour; that is, one characterized by a fairly high percentage of gluten of good quality. It should be noted in this connection that though fall wheats as a class give a more or less starchy kernel, there are exceptions, and several varieties are known which contain more gluten, and gluten of a better quality, than certain spring wheats.

FRANK T. SHUTT,  
Chemist.

Central Experimental Farm.

**THE MILLER'S VIEW OF HARD VS. SOFT WHEAT.**

Editor "The Farmer's Advocate":

Referring to your inquiry as to the relative merits of hard-spring and soft-winter wheat flours for pastry purposes, we may say that discriminating pastry cooks find that they can obtain much better results from hard-wheat flour which is milled specially for household purposes, and from our trade experience, as well as from the experimental work done in our laboratory and baking department here in Montreal, it has been clearly demonstrated that a properly-milled hard spring-wheat flour will give more and better pastry, with about one-half the amount of flour which is necessary when using soft winter-wheat flour. It is not at all necessary to use more shortening; use less flour. The result is a better-flavored, crisp and more digestible pastry than it is possible to obtain from any fall or soft-wheat flour, however made. We confine our milling for both bread and pastry flour exclusively to hard wheats, and we have not for years ground a pound of fall wheat in any of our mills. In a few sections in Eastern Canada there is an impression that fall-wheat flour is necessary for pastry purposes, the lower prices at which this flour is sold no doubt aiding in the maintenance of this misconception, but we find that, with the wider distribution and better knowledge of the merits of hard-

wheat flours, the demand for fall-wheat products is decreasing.

THE OGILVIE FLOUR MILLS CO., LTD.

**FALL WHEAT PREFERRED BY McCORMICKS.**

Editor "The Farmer's Advocate":

Replying to your inquiry, would say Manitoba hard-wheat flour is not satisfactory for our use, although we do use a little of it in one or two lines of goods. It seems to be a little too hard. We much prefer Ontario fall red and white wheat, which gives us good satisfaction.

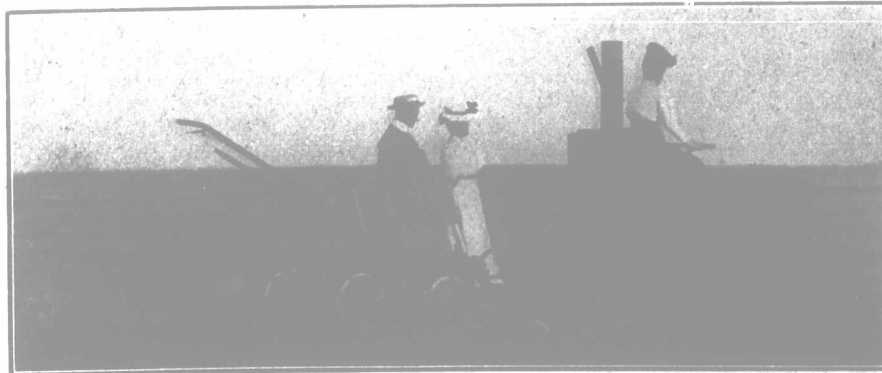
THE McCORMICK MFG. CO., LTD.

[Note.—The McCormick Co. is one of the oldest and largest manufacturers of biscuits and all kinds of confectionery in Canada.—Editor.]

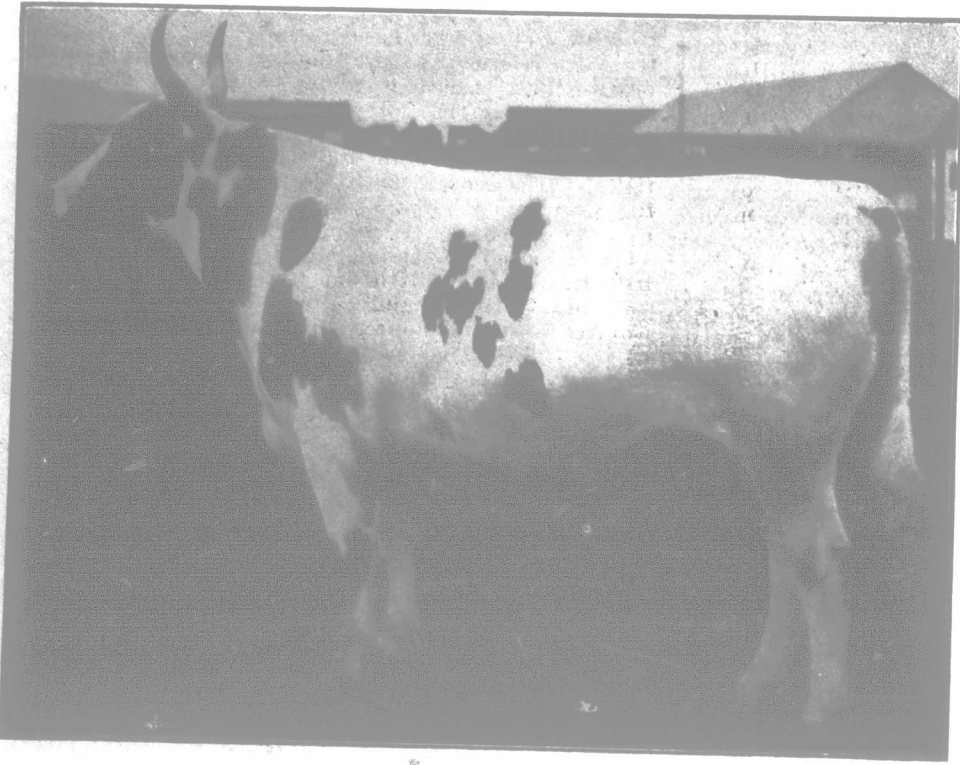
Every farmer in Canada needs "The Farmer's Advocate."



Cutting Oats in Manitoba.



Gasoline Motor Breaking in Manitoba.



Spicy Sam.

First-prize Ayrshire bull, Highland Show, 1907.

## ANIMAL PORTRAITURE.

The photogravures in this issue of typical animals of the various breeds of farm stock they represent should be carefully studied by all readers having any interest in improved stock, for, next to seeing and handling living specimens, these pictures give the truest available idea of the most approved types of the different breeds, the engravings in nearly every case representing first-prize animals and champions at leading exhibitions, rated by either inspection or performance. These pictures, being all reproduced from photographs from life, are not open to criticism as having been "doctored" to improve the picture or exaggerate the points and proportions; and as the camera, as a rule, does not flatter, but rather truthfully represents the subject, the halftones made from photographs are seldom equal to the original, though they come as near to representing a facsimile as can be produced by any known method of portraiture. The present age is essentially the era of illustration in periodical literature, and we feel sure our readers will credit "The Farmer's Advocate" with being up-to-date in this as in other features of agricultural and live-stock journalism.

## THE DAIRY.

## HINTS ON MAKING BUTTER FOR EXHIBITIONS.

As a number of our correspondents have recently been asking for suggestions on the making of butter for exhibition purposes, we take it that there is a more or less general demand for information on this question, hence these hints. It is taken for granted that those who read the article are familiar with the ordinary routine of buttermaking, thus it will not be necessary to go into details.

The first and most important thing necessary for a buttermaker to bear in mind is the basis or scale of points used for judging. What does the judge usually consider when he or she starts to work on 50 to 200 lots of butter at an exhibition? The judge must have something definite and clear in his or her mind as to what constitutes a standard of perfection. This standard usually consists of some scale of points, the total making 100 for the sake of convenience. Even if the judge uses no set scale, he must have some definite ideal in his mind or his judgment is worthless. The standard of perfection is usually made up of: Flavor, Grain, Body, Color, Salting and Package. As flavor is the most important quality in butter, the maker must ever bear in mind that the judge is likely to decide about one-half the merit of each lot of butter according to its flavor. Most judges now give preference to the mild, creamy flavor, rather than to the acid flavor of former times, hence the buttermakers should not ripen the cream so much as formerly. In no case should the cream have more than .5 (five-tenths) of one per cent. acid at the time of churning. Where no acidimeter is available, churn as soon as the cream thickens and has a mild, acid flavor. Having cream from perfect milk, or milk with an absence of any fodder or weed flavor, is a great help in getting fine-flavored butter. The use of a culture or good-flavored starter is also a help. If there is any objectionable flavor on the milk, the cream should be pasteurized when sweet; that is, be heated to 160°

F. for about ten minutes, or 180° to 185° for two or three minutes. If a good culture is not available, this pasteurized cream may be cooled to about 50° and be churned without any ripening whatever, after standing one or two hours. Such butter has the nice creamy flavor liked by English people, and by a growing number of Canadians.

Don't forget that flavor is the most important point in exhibition butter.

The second point is the grain and body of the butter. A judge likes to have the butter "iron" nicely, i. e., when he pulls a sample out of the print, tub, box or crock, it should leave the back of the trier clean—not greasy; should be close in body and texture, and not be too hard and brittle, nor yet too soft. When the butter is of such consistency that it spreads nicely on bread, its grain and texture are considered perfect.

Temperature of the cream and butter at the time of churning and temperature of the butter at the time of judging are the two most important factors governing grain and body. The character of the fat, which is influenced by the cow and her feed, is another factor. Method of working is another; some butter is spoiled by overworking. Work sufficiently to make the body firm, the color even, and the appearance waxy, but avoid the two extremes of "over" or "under" working. The "end-point" is something which cannot be described and is learned only by experience. Working sufficiently to mix the salt well, then allowing the butter to stand for one to three hours before finishing the working, is a much safer plan than to depend upon one working. Once working is almost sure to produce butter more or less mottled.

As tastes vary with regard to color and salt in butter, it is very difficult to give general directions which cover all cases. It is better to err on the side of light color and light salting, than go to the other extreme. Up to the end of September it is hardly necessary to use any coloring. After a heavy frost or two a small amount of vegetable butter color added to the cream just before churning is advisable in order to obtain the "June-grass tint." The main point is to have the color uniform. Mottles, streaks, waves, etc., are always scored down by a competent judge, as this indicates faulty workmanship. The preventives are: washing out the buttermilk with water or brine, even distribution of fine salt and working twice. If these points are noted there is little danger of mottled butter. "White specks" in butter are prevented by straining the cream into the churn, thus removing particles of curd, dried cream, etc., that produce "specks."

Salt at the rate of  $\frac{3}{4}$  to 1 ounce of salt per pound of butter for prints and  $\frac{1}{2}$  ounce for boxes. Tubs and crocks may usually be salted the same as for prints, because these are chiefly sold on local markets, where the demand is for higher salting than for the export trade.

The use of fine salt, having sufficient moisture present in the butter to dissolve the salt, and twice working, will usually prevent grittiness, which is the most common fault under this head after "too high" or "too low" salting. The tendency is for milder salt in butter, in order that the true, creamy flavor of the butter may be more apparent.

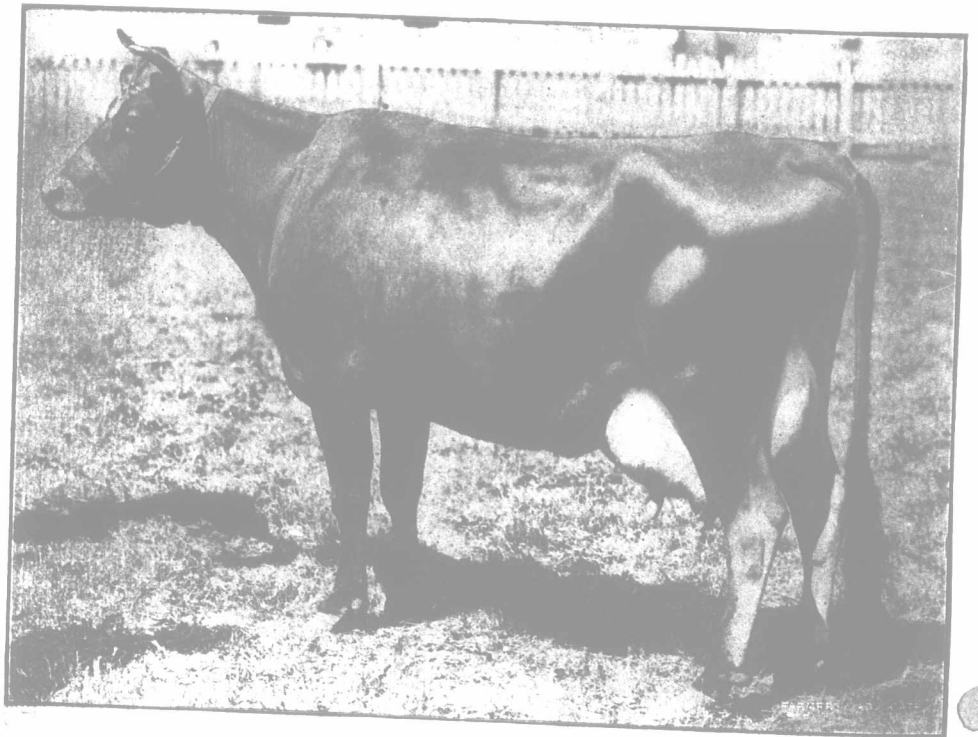
The oblong pound print, wrapped in plain parchment butter paper, is the best form. The print should not be too high and narrow, which gives the judge the impression that the butter cannot "stand up." The top, bottom, sides and ends should be close and straight, or nearly so. Some prints look as if some one had sat down on one edge of them. This is caused by a faulty printer, or not removing the butter properly from the printer. By holding the ladle against one side of the print, the butter can usually be removed without trouble. The 56-pound box is best for export. This should be neatly finished on the top. A fluted roller passed over the smoothed surface of the butter, relieves the top of that tendency to a greasy appearance. The box should be lined with heavy parchment paper. The butter should be packed in small lots so that if the judge "strips" the package it will present a close, uniform appearance on all sides and on the bottom. As a rule, it is not necessary to put salt paste, or anything except the parchment paper, on the top of the butter. Tubs, crocks, etc., should be filled to within about half an inch of the top, then be covered with a parchment paper, or clean cloth circle, and nothing else except the cover. Fancy patterns or scrolls on top of the butter are usually disliked by the judge.

## GENERAL DIRECTIONS.

1. Have the butter made at least three days before it is to be judged. This gives time for the grain to set and the color to become uniform. It is a mistake to send butter to an Exhibition the same day or the day after churning.
2. Ship in a clean case, preferably enclosed in another case, or in a canvas cover. In hot weather pack in ice before shipping or delivering. Pieces of ice in the basket or box containing the prints tend to keep the butter cool and firm. If the Exhibition has a good refrigerator, ship in time to have the butter cool before judging day. Also ship or deliver in time. A judge is usually annoyed at having to go over another lot or two after he has finished a class, which possibly means that he may have to alter the score on several lots, in case of ties. The person who delivers late at an Exhibition seldom gets more than "cold justice."
3. Be not over-anxious with the exhibition butter. Many persons become so anxious about having their butter so much better than usual that they spoil it, and in many cases the lot sent to the Exhibition is not equal to the average make.
4. Bear in mind that the judge will judge the butter chiefly on the question of flavor. He or she will also consider the grain, color, salt and package. These are the five main points to always keep in view when making butter for exhibitions, or at any other time. H. H. DEAN.  
O. A. C., Guelph.

Hogs and windfall apples make an excellent combination. If the swine can be given the range of the orchard till the middle of September they will clean up the wormy, defective specimens and leave the ground clean for the more valuable later drops.

Every farmer in Canada needs "The Farmer's Advocate."



Du Val's Defiance (imp.) 197614.

Jersey cow, born April 14th, 1902. Winner of certificate of merit in Jersey Island butter test, 1905. First and championship, Toronto and London, 1906. Owned by B. H. Bull & Son, Brampton, Ont.



Colantha 4th's Johanna.

Holstein cow, 8 years old. The world's champion butter cow. Property of W. J. Gillett, Rosendale, Wisconsin.

### PICK THE BEST COWS AND MOST LIKELY CALVES.

Editor "The Farmer's Advocate":

We have been keeping milk records for three years. The time required is about  $\frac{1}{4}$  minute per cow. We started in order to find out what each cow was doing, and to dispose of the poor ones. Our method of keeping the records is to weigh each cow's milk, three days in the month, and take a sample from the six milkings, which is tested for butter-fat. Our cows have given from 4,500 to as high as 7,230 lbs. milk in 10 months, and made from 250 to as high as 320 lbs. butter in the same time. Milk records are certainly a benefit to a man who is taking good care of his cows, for by them he can tell which is the most profitable cow, and which ones are not paying for their keep. If you want to raise the calves, you will know which are the most likely to develop into profitable dairy cows. Our cows are fed in winter twice per day, also watered morning and evening in the barn. They are pure-bred Guernsey and Guernsey grade.

Pictou Co., N. S.

D. G. MCKAY & SON.

### WIDE-AWAKE DAIRYMEN.

Editor "The Farmer's Advocate":

I have been keeping individual milk records for the last three years. I take records once and sometimes twice per week by the use of a forty-pounds steelyard, which I keep in my barn. As I know the weight of my pails, it takes but very little of my time to weigh. I have a little pass-book, with the name of each cow, and I credit her with her milk. My cows are graded Shorthorns. Before I commenced keeping records, I calculated so much to the cow per month, say, five dollars, for I heard it often mentioned that was about the average; but when I kept records I found some of my cows were giving twenty pounds, while others were giving as low as nine pounds at a milking. Now, I consider if a cow does not give fifteen pounds of rich milk, it is better to let calves on her for veal, and get rid of her as soon as I can. I may say that I find in this part that the best dairymen are men who keep a close record of the feed they feed their cows and the returns they get from each individual cow, and value a good cow very much above an inferior cow.

FRANK MUNROE.

### PROGRESS AND BENEFIT OF COW-TESTING.

The interest taken by the dairy farmers in the work of the cow-testing associations organized by the Branch of the Dairy and Cold-storage Commissioner, Ottawa, is steadily increasing. Evidence of this is seen in two or three ways. The milk-record sheets, being tabulated daily, show a larger number of cows whose milk is being weighed and sampled six times a month, and, better still, there is an increase in the yield. That is to say that the second and third tests in the various localities show a marked improvement on the first. This will have been noticed in the summaries of the tests published from time to time. The Dominion officials are doing valuable educational work on their rounds, for the custom is increasing, of farmers dropping in while the testing is in progress to ask many questions about the test, the work of the associations, improving herds, feeding, churning at home, and in fact on every phase of dairy work.

Records to hand from the Pacific Coast show the average yield of 232 cows in the Chilliwack, B. C., Cow-testing Association for June to be 800 lbs. milk, 3.6 test, 29.1 lbs. fat. There are

several cows giving over 1,200 lbs. milk in the 30 days.

The importance of succulent feed is well illustrated by the yield of a herd in the St. Prosper, Que., association. On June 5th the yield of 11 cows was 286 pounds of milk; they had been on dry feed, and pastures were backward. On June 25th the same 11 cows gave 371 lbs. milk. At a moderate estimate, that herd could easily have given 1,200 lbs. more milk during the month, if succulent feed had been available. What applies here applies to hundreds of other herds. There would be an enormous increase in the general flow of milk and a vast improvement in our dairy herds if provision were made for green or soiling crops, ensilage and succulent feed generally to tide over backward seasons and dry, hot spells. Feeding ensilage almost invariably means making more money from the same number of cows.

C. W. F.

### COW FORM DECEIVING: PERFORMANCE THE GUIDE.

Editor "The Farmer's Advocate":

I started to keep daily records October, 1905. It takes but a very little time each milking to put the pail on the scales and note the weight on the form with which the Government supply us. It takes a little more time to add and tabulate the results, but it is time well spent.

These records were started in order to obtain accurate results, and I am now more than ever convinced that some such record has to be kept in order to obtain accurate results, as even the most careful observation of the most experienced men will not give you any such satisfaction as having the actual figures. In fact, the more experience I get the more I am convinced that the form of the cow and her performance will deceive experienced men. Not only that, even those who are daily milking the cows are led astray. As an example of that, I would cite the case of cow No. 35 on my list, which nobody thought was anything extra. She was simply a steady performer, and has now made 9,000 lbs. of milk. Cow No. 62, everyone in the barn was convinced was a good cow. She, however, only gave 6,500 lbs. of milk, although in the first two months of her milking she was thought to be as good as No. 52, which gave practically 10,000 lbs. of milk.

I have met no one yet who could tell me by the outside of a cow how much she would milk, and I have seen so many men whom I thought should have had good judgment deceived by the cows that they were themselves milking that I am determined to stick to an accurate method when I have one so simple, so readily at hand.

JAS. J. RILEY, JR.

Brockville, Ont.

### THE GREAT MILKER PETERED OUT.

Editor "The Farmer's Advocate":

I believe there is nothing that will so help a man to get the best results as the milk-record system. One can so easily detect the results of any change in feed or otherwise, and remedy it, perhaps not so much on the whole herd, but individually, for I have found from experience that it pays well to cater to the likes and dislikes of different cows. The ration fed to one cow profitably might be far out for another. Some claim to be able to tell how much a cow gives merely by guess, but to me they are far out. It is very easy to remember the two or three months in the flow when the cow is giving, say, 40 lbs. per day, and forget all the rest of the

year when she has dropped down to less than half that amount. I once bought a cow for a good price that was noted as a great milker, and she started out to lead, and did so for about two months, and finished second to last, with a small two-year-old behind her. There is no other correct way but to keep a record of milk, both as to quantity and quality. Form and appearance count for a great deal, but often fail, but performance always counts.

Of course, it takes some time to do the figuring, but so very little that the interested man will enjoy, and, indeed, should be anxious to get at and work out his operations on business principles. Dairying for profit, like many other things, lies behind so much fine figuring that the majority never get at the real truth, thereby making their work a drudgery in place of a pleasure.

D. D. GRAY.

Central Experimental Farm, Ottawa.

### MILK AND BUTTER MORE THAN DOUBLED.

Editor "The Farmer's Advocate":

I have been keeping individual milk records of my cows for about six years. I have the scales in the stable near the cows, and a record blank and pencil beside them; and when we finish milking a cow the milk is put on the scales and the weight marked on the record sheet. Occasionally, say once per month, or sometimes only once in two months or more, I take samples of both morning's and evening's milkings of every cow, and test them with the Babcock tester for butter-fat; and in that way I know exactly what every cow in my herd is doing, and any cow that is not giving satisfactory returns, after a fair trial is sent to the butcher. I raise nearly all of my own cows. I keep the best pure-bred Holstein bull I can get, and raise the heifer calves from my best cows only, but still find that I have to do a certain amount of weeding out of inferior cows every year. I find, however, I have this advantage: I have more than doubled my milk and butter output per cow since I commenced the weighing and testing of the milk. This is somewhat due to better feeding and attention, but more to weeding out the inferior cows.

My reason for starting the weighing and testing was that my dairy, as a whole, was not paying me, and I wanted, if possible, to find out where the trouble was. I believe that, even with the person that is taking the best of care of his cows, weighing and testing will pay handsomely, as inferior cows will work into any herd, and I know of no other way of successfully finding them than with the scales and Babcock test. I had in my herd at one time two cows, about the same size, and that were getting about the same amount of feed, and were giving about the same amount of milk; but, upon testing, I found one cow giving 5 per cent. milk, and the other 3 per cent. The first I was keeping at a profit and the other at a loss, and it was not long after thoroughly testing them that the 3-per-cent. cow went to the butcher.

JOS. R. TAYLOR.

Westmoreland, N. B.

Prof. F. R. Marshall, B.S.A., a Canadian, and a graduate of the Ontario Agricultural College, who has occupied positions at the Iowa and Texas Agricultural Colleges, has been appointed Professor of Animal Husbandry at the Ohio College of Agriculture, in place of Dr. C. W. Gay, who resigned to go to the Pennsylvania Veterinary College.

Every farmer in Canada needs "The Farmer's Advocate."



Chancellor of Ballyboley.

Galloway bull; first and champion, Royal Show, 1907. Shown by J. Cunningham.

OVER A MILLION FOR MILK.

From small beginnings institutions grow up and become great by degrees without challenging attention like more meteoric concerns of less permanent value to the community. They become part and parcel of the neighborhood and are taken for granted. Our cheese factories and creameries are of this character. They have gone quietly ahead, and their management has been a credit to Canada without the bonusing and coddling characteristic of so many town industries. People become so accustomed to their presence that they forget the big part they play in the finances of patrons. Just as an illustration, take the Harrietsville, Ont., cheese and butter factory. In a quarter of a century, for the former product alone, it has distributed over a million dollars, to say nothing of immense sums distributed by allied industries, like bacon-hog rearing, etc., which it has stimulated. This factory was built in the spring of 1867 by Robert Facey and two other men, who ran it for about 15 years, when Mr. Facey bought the others out and conducted it as a personal enterprise until 1897. Upon his decease his son, Mr. S. E. Facey, who we might say grew up in the factory and is an expert maker, assumed the establishment. The building is well built and splendidly equipped throughout, a modern curing room of large brick being erected in 1904.

The efficient Secretary, F. Kunz, chosen by the patrons at the annual meeting, weighs the cheese, makes out invoices, and the money is drawn on his check. In order to do away with Sunday work, about 1897 a buttermaking plant was put in, and Saturday night's milk is run through the separators, the cream being held over Sunday and made into butter early the following week, a system whereby the patrons secure their butter supply and which has otherwise given excellent satisfaction. Butter is also made in the winter season instead of cheese. Mr. Kunz has tabulated the factory returns for the past 26 years as follows:

CHEESE STATEMENT.

Year.	Lbs. milk made up.	Lbs. cheese made.	Lbs. milk per lb. cheese.	Price of cheese per lb.	Total money received for cheese.	Cost of making per cwt.
1881	2,987,827	292,369	10.64	10.21	\$31,796.84	
1882	2,429,480	236,463	10.26	10.81	25,579.20	1.35
1883	2,724,249	266,410	10.22	10.98	29,278.11	1.25
1884	3,374,094	320,568	10.52	10.99	35,237.03	1.25
1885	3,235,899	311,026	10.40	8.60	26,767.89	1.25
1886	3,755,054	360,971	10.40	9.64	34,822.77	1.25
1887	3,749,920	353,077	10.62	10.78	38,089.21	1.25
1888	3,560,168	369,660	10.44	9.70	35,762.20	1.25
1889	3,591,770	346,869	10.35	9.28	32,170.63	1.25
1890	4,548,908	432,836	10.50	9.7	39,213.49	1.15
1891	5,451,007	517,673	10.52	9.48	49,111.75	1.10
1892	5,293,413	498,574	10.61	9.63	47,949.76	1.00
1893	5,327,432	495,380	10.75	9.97	49,351.64	1.00
1894	5,323,073	498,075	10.68	9.84	48,877.32	1.00
1895	4,384,787	398,530	11.00	7.86	31,289.54	1.00
1896	4,667,849	441,273	10.57	8.30	36,597.97	1.00
1897	5,335,009	499,090	10.68	8.36	41,704.36	1.00
1898	4,795,802	432,589	11.8	7.96	34,403.88	1.00
1899	4,528,688	409,300	11.06	9.93	40,657.10	1.00
1900	4,696,135	422,141	11.12	9.94	41,945.30	1.00
1901	4,708,221	427,524	11.1	8.94	38,194.04	1.00
1902	5,317,253	497,629	10.68	10.34	51,468.95	1.00
1903	5,742,207	544,514	10.54	10.43	56,741.98	1.00
1904	4,119,223	381,090	10.80	8.32	31,496.52	1.00
1905	4,913,546	460,856	10.68	10.66	49,164.29	1.00
1906	5,056,435	465,968	10.85	11.77	54,784.55	1.00
					\$1,032,458.32	1.10

The statement for 1907 for cheese, including July, is as follows:

Lbs. milk.	Lbs. cheese.	Cash.
2,132,854	190,069	\$21,805.75

Pounds milk to pound cheese, 11.22; average price, 11.47 cents.

Following is a synopsis of the butter accounts since 1897:

BUTTER STATEMENT.

Year.	Lbs. milk.	Lbs. butter.	Returns.	Av. lbs. milk per lb. butter.	Av. price per lb.	Cost of making.
1897	259,957	9,898	\$1,746.13	26.26	17.64	3 1/2
1898	295,319	10,948	1,970.67	26.97	18.	3 1/2
1899	442,341	18,263	3,645.45	24.16	19.96	3 1/2
1900	454,300	19,457	4,176.19	23.34	21.46	3
1901	695,276	30,407	6,264.42	22.86	20.60	3
1902	599,463	26,722	5,521.58	22.43	20.66	3
1903	502,685	22,589	4,525.02	22.25	20.00	3
1904	846,066	40,140	7,836.54	21.07	19.52	3
1905	892,678	16,549	3,641.63	23.72	22.00	3
1906	406,894	17,585	4,205.80	23.13	23.86	3

RANGE FROM 3,000 TO 9,000 POUNDS OF MILK PER COW.

Editor 'The Farmer's Advocate':

We have been weighing the milk from each cow once a month (at the same time each month), and twice a month if we think they are varying much in their milk, just so we think we are getting a fair average. We have been doing this for the past three seasons, and we find it very interesting to have an idea what each cow has done. Our cows have given all the way from 9,000 pounds down to 3,000 pounds. We would not have believed there was such a difference had we not weighed it. It does not take more than a minute



Border Leicester Ram.

First in class, Royal Show, 1907. Shown by Robert Taylor.

daily to weigh and mark each cow's milk—one-half a minute each time. We have learned, since we started to weigh our milk, that we had quite a few cows which were not paying their way, and we have been getting rid of these. Our cows are averaging up a good deal better now than when we started to weigh their milk. I think milk records are a benefit to a man, no matter how well he is caring for his herd. I have been very much interested in what other people's cows have been doing. I think 'The Farmer's Advocate' is getting better all the time. We would not like to do without it.

F. S. CALDWELL.

Lanark Co., Ont.

RE THE FLY PEST.

I notice from an article in 'The Farmer's Advocate' of August 1st, that the fly pest is as troublesome as ever 'back east,' and that one of your cor-



Shropshire Yearling Rams.

First and cup-winning pen, Shropshire and West Midland Show, 1907. Shown by Sir Richard Cooper.

respondents is desirous of finding some means of dealing with the pest which will be both cheap and beneficial.

Several years ago I was manager of a dairy farm in New Brunswick, and during that time I tried all the fly exterminators on the market, and several of my own make up, but without much success. At last I decided to keep my cows in the stable during the heat of the day, and let them out in the evening; they were left out all night, unless the night was stormy. The stables were kept scrupulously clean, and were disinfected. There was good ventilation. I had some sheets made of five-cent cotton, and kept the cows covered with them while they were in the stable.

With this care the cows gained rapidly, both in

flesh and milk supply, and I soon noticed by the milk records that we were well repaid for the little extra work, and our cows looked much healthier and better in every respect. Three weeks after I began using the sheets on the cows I cut the feed ration down one-third, notwithstanding that the cows kept doing better, and as we had to buy the feed at about a cent and a half a pound it was a big item.

Some farmers may say that there is no money in that to them. I would say, don't tell anybody that if you want to sell your cows, for they will know that you have poor milkers, for if you had good milkers they would soon pay for that treatment, and when, as Mr. McVicar says, they lose from 10 to 15 lbs. daily, you will readily see whether it will pay or not. If it does not pay to give your cows good treatment it does not pay to keep them at all.

REUBEN SEARE.

Washington, U. S.

POULTRY.

STAMPED EGGS.

The question of stamped eggs having been raised in these columns, a few remarks and suggestions derived from experience in the Danish egg trade in Scotland may not be inappropriate at this season. A few years ago my brother accepted an agency for Scotland for a large firm of Danish exporters, and the first to introduce the stamped egg into Scotland. As usual, when a new departure is contemplated, the conservative ideas of many grocers are difficult to overcome, and, consequently, until the objection of having a stamped egg on the breakfast table could be surmounted, it was certainly uphill work making a connection. After a little, when it was seen that this was no great fault, people began to realize that the stamp was really the best possible guarantee that the egg was fresh and good, and now I can safely assert that many people use stamped eggs all the year round, in preference even to country eggs, as the quality is excellent, the size unapproachable, and the supply regular. They certainly have a splendid system of working in Denmark; Government, farmers and shippers all combining in and for their own interests. The Government gives the farmer every encouragement and help. The farmer tries to perfect and produce a breed of hens from which the best results can be obtained, and the shipper finds it policy to pay the farmer the very best price for his eggs, and thus ensure his best attention. There are branches scattered throughout the country where the farmer brings his produce weekly. The eggs are all carefully weighed and examined, packed in sizes according to weight, and all bad eggs rejected. From these centers they are sent on to Copenhagen, being shipped from there on Thursday, and arriving in Scotland on Monday; something like a fortnight only having elapsed from the time they are laid until placed on the market.

Now, why shouldn't this system of buying wholesale by weight be general? A person selling a hundred good eggs would certainly receive a much better price than one selling a hundred indifferent eggs; whereas this indiscriminate selling by the dozen, and receiving one price large or small, gives little encouragement to the farmer to try and perfect his stock as long as a hen will cackle, irrespective of whether she is laying or lying.

From time to time happens that shipments from other countries, Siberia, etc., will be delayed on account of the weather, and, consequently, when those eggs arrive the market has suffered a relapse, and the dealer, rather than sell at a loss, places them in cold storage until prospects brighten. Now, anyone can imagine what those eggs will be like a week after they have been hoisted on the market; it may be a few months later. On the other hand, with the stamped eggs this would be impossible. The firm stakes its reputation on the quality of its goods, and guarantees every stamped egg as fresh, and no firm of any repute could afford to take risks of that kind. I have pointed

out that the only objection to stamped eggs is at the table, and in what proportion does that exist as compared with cooking in general? Bakers who are using egg before don't wish to stop and examine every The housewife can break half a dozen into the frying pan without any risk, and so on.

This egg has made its name on the British market, and stands approved on its merits. Imitation is the sincerest form of flattery, and whereas a few years ago the stamped egg was unheard of, now it would be difficult to find the proverbial Danish exception of that ilk to prove the rule. With the price obtainable here for eggs, it can only be a question of time when the dealer will realize the full advantages of the stamped egg, and

the policy of paying a good price for a good article; then the farmer and his gudewife will awake to the fact that there is more in this trade than merely household expenses, and the price of a new bonnet occasionally.  
Middlesex Co., Ont. L. SAMSON.

**THE MARKING OF EGGS.**

Editor "The Farmer's Advocate":

I fully agree with the statements of some of your correspondents as to the advantages of marking eggs, but, to my mind, the difficulty arises as to the methods to be applied. At first, in working up a high-class trade in strictly new-laid eggs, I thought of stamping each egg. This is being done by a gentleman in Toronto who has had long experience. This method has one advantage, it advertises the producer. A guest in the home of the purchaser sees the stamp on the egg, and makes a note, if they are within easy reach of the supply, of a place where the eggs are above suspicion, and new trade follows. But, on the other hand, in these days, when advertising in such ways has become obnoxious to some people, reaching even to the breakfast table, other plans must be adopted.

In selling my eggs, I put them up in cardboard boxes containing one dozen. Each egg is, after testing, wrapped in tissue paper, just as oranges are wrapped, and a trade-mark stamped on, which bears the wording: "Guaranteed strictly fresh. The Coombe Poultry Farm, Hespeler, Ont."

It perhaps costs a little more this way, but the paper I get free from our printer's waste-box, and it is really the time alone that is given; and I can always get two or three cents per dozen more for the tasty little boxes. There is the advertising, and the guarantee at the same time. In addition, I have the name of our poultry farm printed on the box, and also the following on one end:

Batch No.....

These eggs are guaranteed strictly fresh. If anything is wrong with the contents, state batch, number, date, and place of purchase, and advise us at once.

Of course, the boxes are sealed before leaving us. This plan works well. The entire extra cost, including cost of boxes, is not more than one cent per dozen,  
GEO. W. TEBBS.  
Waterloo Co., Ont.

**THE WORLD'S POULTRY PRODUCTION.**

[Edward Brown, F.L.S., before the Second National Poultry Conference, University College, Reading, Eng.]

My contribution to the papers at the Second National Poultry Conference is largely statistical, but none the less of interest, and, it may be, of value. Unfortunately, it is by no means so complete as was anticipated, due to the fact that in comparatively few cases is any attempt made by the Government authorities to estimate, even approximately, the production, and that so many countries do not export eggs and poultry, consuming all the produce at home. This is especially the case in the smaller European and American States, and in Asia. The British Colonies in Africa do not meet their own requirements, and import to make up the deficiency between demand and home supply, whilst the Antipodean Colonies are only beginning to export, as, heretofore, the poultry industry has been undeveloped, and not beyond the needs of the resident population. But such facts as are available are here presented, and it may be that in the future, when increased production all over the world has made more apparent the importance of this industry, they may form a basis for comparisons.

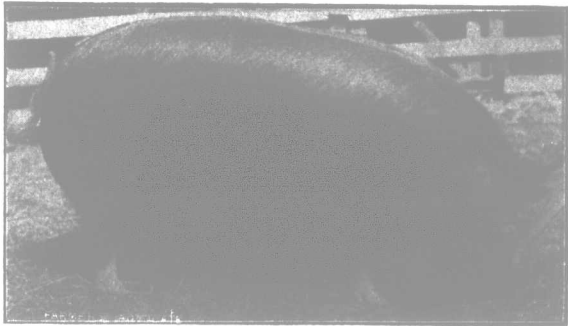
One of the objects with which this inquiry was attempted was to see whether it was possible to form a fairly reliable estimate of the annual crop of eggs and poultry, but the result has been to indicate that the time for that has not yet arrived, and nothing more than a very speculative approximation can be attempted. From only three countries have returns been received in this direction, namely, France, Canada and the United States. In 1903 I prepared for the Royal Commission on Supply of Food and Raw Material in Time of War, an estimate as to poultry and egg production in the United Kingdom, relating to the year 1902, and I have brought these up to date, giving the figures as an estimate for our own country.

**ESTIMATED PRODUCTION.**

	Year.	Eggs and Poultry.
United Kingdom	1906	£11,500,000
France	1899	17,223,000
Denmark	1893	1,500,000
Canada	1905	3,335,568
United States	1899	58,922,900

The Agent-General for South Australia informs me that the estimated number of poultry produced in that Colony is 1,500,000, but the value is not stated.

It will be seen from the above that the statistics are most incomplete, and few deductions can be made therefrom. It would, perhaps, be a guide if we knew the respective number of fowls in the different countries, for much more information can be obtained in that direction. Several countries make a census of their stock of poultry, but as I did not set out to attempt an enumeration on those lines, I am not in a position to give the respective figures in anything like a complete manner. However, such as are available are given below:



**Pilege Dorcas 2nd.**

Berkshire sow. First and champion, Royal Show, 1907. Exhibited by the Duchess of Devonshire.



**Colston Lass 13th.**

Yorkshire sow. First and champion, Royal Show, 1907. Shown by R. M. Knowles.

**NUMBER OF FOWLS IN EUROPEAN COUNTRIES.**

Year.	Fowls.	Ducks.	Geese.	Turkeys.	Totals.
1885	12,401,533	2,201,901	885,319	473,583	15,963,533
1905	12,876,808	2,939,105	1,714,885	1,018,599	18,548,877
1903	11,555,832	889,413	187,929	58,245	12,690,919
1900	55,395,837	2,467,043	6,239,126	351,165	64,453,171
1905	—	—	—	—	32,765,339
1908	4,984,942	432,858	34,498	11,321	5,413,619
1901	1,636,543	9,038	7,455	3,671	1,655,702

It may surprise those who have not studied this question to learn that the last returns avail-

able for Great Britain were published more than twenty years ago. Poultry are not included in the agricultural returns of Britain, although they are in those of Ireland. Considering the enormous developments of poultry-keeping in this country since 1885, the above figures are altogether misleading, and should, in respect to ordinary fowls, be increased by 50 per cent., at least, which would bring up the total to nearly twenty-four millions.

When we come to the export trade of various countries, we are on surer ground, although I had hoped to have made the returns much more complete, but replies have not been received from several countries. I have been able, by courtesy of representatives of our Colonies, and the Consuls-General of foreign countries in London, and by British Consuls abroad, to give the actual figures of exports to Great Britain. Our trade and navigation returns credit the last country through which produce passes as that from which the supplies are received. For instance, according to returns supplied to me by the Board of Agriculture, but not yet published, in 1906 we received only 1,000 eggs from Italy, whereas we actually received something like 150,000,000. These are credited to Belgium. On the other hand, Germany is shown as sending us eggs to the value of £957,903, whereas the actual imports from that country were in value £4,500. The great bulk of the stated German supplies come from South Russia and Austro-Hungary.

**EXPORT TRADE OF VARIOUS COUNTRIES.**

Country.	Year.	Total export values in Eggs.	Total export values in Poultry.	Total values, eggs and poultry exported.
<b>Europe—</b>				
		£	£	£
United Kingdom	1906		28,938	28,938
Austria	1906	3,760,466	620,415	4,380,881
Belgium	1905	472,716	35,153	507,869
Bulgaria	1905	364,507		364,507
Denmark	1905	1,368,032		1,368,032
France	1906	559,000	598,300	1,157,500
Germany	1905	67,700	61,480	129,180
Hungary	1906	2,960,000	2,573,642	5,533,642
Italy	1905	2,253,710	547,253	2,800,963
Netherlands	1905	150,000		150,000
Portugal	1906	60,491		60,491
Russia	1906	5,615,200	300,030	5,915,200
Servia	1903	320,358	78,097	398,455
Spain	1905	10,035		10,035
Sweden	1906			54,783
Turkey	1906			9,200
<b>Africa—</b>				
Cape Colony	1906	43,282	628	43,910
Egypt	1906	108,815		108,815
Morocco	1906	244,648		244,648
<b>America—</b>				
Canada	1905	148,505	13,764	162,269
United States	1906	216,385	291,042	507,427
<b>Australia—</b>				
South Australia	1906	121,000		121,000
New Zealand	1906	268	6,662	6,920

From this table, it will be seen that of the above countries the total egg and poultry export trade was as follows:

	Eggs.	Poultry.	Totals.
	£	£	£
European countries...	18,026,228	4,941,278	22,967,506
African countries.....	406,745	628	407,378
American countries...	364,890	304,806	669,696
Australian countries.	121,268	6,662	127,930
	£18,919,131	£5,153,974	£24,072,506

Probably from these figures some faint notion may be obtained as to the world's production in eggs and poultry, though it is a pure estimate, and one which it would be impossible to prove. Still, it is desirable to make the attempt, and I submit the following table for what it is worth, taking into account the low values in many countries, and inclusive of home consumption:

**ESTIMATED VALUE OF EGG AND POULTRY PRODUCTION.**

Europe	£75,000,000
Asia	5,000,000
Africa	1,500,000
America (on 1905 basis)	115,000,000
Australia and New Zealand	1,500,000
	£198,000,000

**A GREAT ADVERTISING MEDIUM.**

I think your paper a good advertising medium, as my advertisement in your poultry column brought in orders from all parts of Ontario, Quebec and New York.  
GEO. S. HAMMOND,  
Perth Co., Ont.

## SHALL WE STAMP THE EGGS?

The question of stamping eggs is a very important one. I have been in favor of it for many years. Mr. Geo. Jackson (who was the largest retailer of eggs and butter, when I knew him, in England) used to have the best quality of eggs stamped with his name, as a guarantee of freshness.

These eggs were sold at 1½d., or 3 cents each, while the others were sold at 1c. to 2c. each, and I know that there was a great demand for the stamped eggs.

It is advisable not to put the date on the eggs,

## RECORD OF WINTER EGG-LAYING AT MACDONALD COLLEGE.

It would be hard to find a more completely-equipped plant than the one at Macdonald College, under the charge of Mr. F. C. Elford. Unlike the ordinary commercial poultry house, Mr. Elford's equipment is to serve a double purpose—commercial poultry-keeping and instructional poultry husbandry. The colony-houses, the colony brooder-houses, the fattening-house, the incubator rooms, the brooder-house, the egg-judging and feed rooms, serve this double purpose, while the lecture-room, the illustration-breeds poultry house, the classroom, and the offices, etc., are special equipment

cupied by a single breed. The best ten birds in one breed, for example, laid 1,140 eggs, an average of 114 eggs each, while the worst ten birds in same breed laid only 142 eggs each, an average of 14 eggs each.

To obtain the records of the individual hens, Mr. Elford employed simple but effective trap-nests. The wire entrance is arranged so that the hens can readily enter the nests, but once inside, cannot get out without the aid of the poultryman. Each hen has a numbered leg-band, and when she is released the number of her leg-band is marked on the egg. The eggs are taken to the office, and each hen is credited with her performance record on a special sheet.

The importance of the trap-nest record in commercial poultry work lies in the fact that a poultryman can readily distinguish the poor layers from the good layers and get rid of those that do not pay for their feed. More than this, he is able to select for the incubators eggs that are laid by the best-laying hens, and thus gradually breed up a paying egg-laying strain.

About November 1st Mr. Elford will discard all hens that have proven to be poor layers, while the good ones will be used next spring for breeding. From such hens will be distributed eggs and stock to Quebec farmers at very reasonable prices.

W. LOCHHEAD.

## MUSLIN CURTAINS FOR WINDOWS.

In view of the present discussion on muslin-curtain ventilation for poultry houses and other stables, the following paragraphs, extracted from an article by A. B. Smith, of British Columbia, in "The Farmer's Advocate," of Winnipeg, will be pertinent. It will be noticed that Mr. Smith has substituted cotton for glass in all his window space. Most poultrymen nowadays use part glass and part cotton or muslin, finding that muslin alone admits scarcely enough light:

"I used glass windows at first in houses, but after experimenting, took them out and put in cotton on hinged frames, and find it much more satisfactory, as air is better in houses after being closed all night, and there is practically no frost melting and running down each day to freeze up the floor at night and keep it damp, and gradually spread till the whole is frozen solid, instead of being a bed of loose sand in which the fowls could dust at any time. With the double roof in the house, the dry earth forms a buffer between the cold above and heat from the birds inside, and practically no frost forms on inside of roof at night to drip down next day.

"Cottons are kept open every day from sunrise to about an hour before sunset in the coldest weather, shutting early to avoid house getting chilled off too much before birds begin to roost. I also placed a transom in top of each door, which is open more or less except in the very coldest snaps. To my mind, the greatest requirement here, where it is nearly always pleasant at mid-day and very sharp at night, is to try to equalize the two temperatures as nearly as possible in order to get good results. I had White Leghorns laying in these houses in the coldest weather last winter when we had as low as fifty degrees below zero, and no combs frosted, and always fed in the open sheds. A large part of the feed was barley and wheat in the straw, and left to a good depth on the floor, so they had to spend a good deal of time outside the roosting houses."

If building again, Mr. Smith thinks it would be well to make one cotton shutter in each house in two sections, the top one to come down about eight inches and hinge at the top, to be left open in spring and fall nights when not warm enough to open up a whole window, and, as it often is, too cold to shut completely.

## APIARY.

## FALL MANAGEMENT OF BEES.

Address by Dennis Nolan, before the Ontario Beekeepers' Association.

Fall management consists of preparing our bees for winter, for spring, for next season, and in many ways it is laying the foundation for future success.

The work of the fall season may be lessened to a great extent by the system of managing during the summer season. About the middle of September make an examination of each colony, to find out its condition in regard to its strength of bees and quantities of stores, as well as to know if it has a good laying queen, and is in a healthy condition. If sufficient bees to cover five Langstroth frames are found, it will be safe to put such colonies into winter quarters; if less than this amount of bees, it will be better to unite with another weak one and have a good colony.

To do this, remove about half of the lightest combs from colonies to be united, and some time afterwards, on a cool evening, put two weak ones together, by placing the combs of one with adhering bees alternately between the combs of another. Remove one queen if one is inferior to the



Prince and Princess of Wales and Party, at the Highland Show, Edinburgh.

as some city people think the eggs are not fresh if they are two or three days old. I have never known any housewife to "kick" about the indelible stamp on the eggs, but rather express some satisfaction at seeing the name stamped on the egg, knowing that the name would not be there if the eggs were not fresh.

As most people put the small end of the egg in the egg-cup, it would be advisable to stamp the small end, then the "decoration" would be out of sight.

The stamp should be of rubber and oval shaped, not more than half an inch long, with clear-cut letters, something like this: (T. BROWN.) Such a stamp can be bought, made to order, for 25c. Of course there are some people whose names are too long to be put on the half-inch stamp, they would have to have a larger stamp.

Mr. Henry wants to know how to bring the stamping of eggs about. I would say, stamp your

for the instruction of students. The colony-house system, established last year, has given good results. The birds wintered over in excellent condition in the single-board colony-houses, as the egg-laying record will show. No attempt was made to heat these houses artificially; in fact, the temperature within the houses fell frequently, during the coldest spells, to 18 degrees below zero. The results may be attributed to:

1. Proper maturing of the pullets before winter set in.
2. The selection of pullets from birds with a good winter-laying record.
3. Careful management and feeding.

The record of egg-laying for six months, ending May 31st, is very interesting. It shows the value of keeping a record of each hen's performance. The 240 laying hens produced, from December 1st to May 31st, 18,173 eggs, an average of 75 eggs for each hen. The monthly record is: December,



Armour's Team.

At the Royal Show and the International Horse Show, Olympia, London.

eggs with your name and call your customers' attention to it, and tell them that your name on the eggs stands as a guarantee of freshness; should any of the eggs, perchance, be not fresh, you will gladly exchange them, freely, for fresh ones.

Your customers will always look for eggs with your name; if you give satisfaction, or will reject eggs with your name if they find them unsatisfactory.

Washington, U. S.

1,487; January, 2,441; February, 2,599; March, 3,786; April, 3,937; May, 3,923. But a study of the records of each hen shows that some of the hens of this flock are simply "eating their heads off," while others are money-makers. For example, the half that did the best produced 12,796 eggs, an average of 106 eggs each; while the other half laid only 5,377 eggs, an average of 44 each.

This variation is not due to difference in breeds, for the records tell us that the variation is even greater in individual colony-houses oc-

other, otherwise the bees settle it amongst themselves. Be careful not to get too strong colonies in this way, as they do not, as a rule, winter as well as medium ones.

All colonies going into winter quarters should have a laying queen, and colonies that have been queenless a short time may be given a laying queen by some safe plan of introduction.

If the colony has been queenless since the swarming season, it will be useless to spend time and feed on them, as the bees are too old, and will die during the winter.

The most important part of this season's work is to provide each colony with sufficient good stores to carry them through until they gather feed next season. If we could supply them with about twenty-five pounds of good clover honey, well ripened and capped, there would be little danger of winter losses. We must have some reliable way of determining the amount of honey each colony contains as found when we are doing this work. Some good beekeepers weigh their colonies on scales, allowing so much for the hive, combs, etc., but I consider it unreliable, as there may be a difference of 10 pounds in the make-up of different colonies, a difference of material of the hive, amount of brood, pollen, etc., in the combs. I consider an examination of the combs the best way of weighing stores, and if honey to the amount of five or six Langstroth frames be found, it will be sufficient. A colony with less than this amount should be given well-capped combs to make up the shortage, removing empty combs, and crowding the bees into as few combs as the food supply and quantity of bees will allow, putting in division boards or dummies. This keeps the cluster more compact and in a body during cold snaps in winter.

If colonies are short and combs of honey are not at hand, liquid feed may be given, after first contracting the space for storing, as in the other case. As a rule, pure sugar syrup is fed, made from best granulated sugar. It may be given in any kind of feeder, if fed early in the season. A handy feeder may be made to go into an extracting super made 1 inch smaller than the inside of the super. It may be made of undressed lumber, waxed at the corners, and made of different depths, to hold just enough for any colony, and a few small strips or blocks of wood for floats.

Place the feeder upon the tops of the frames, and, if the weather is cool, feed the syrup warm, contract the entrance, and feed during the middle of the day. The syrup, I think, gives the best results when made of a consistency of 3 parts sugar to 2 of water. Sometimes a little honey is added to prevent granulating, but I never practiced doing it. Our syrup is made with steam, and it gives good satisfaction. A 3/4-inch steam pipe is run down into a barrel or honey-storing tank; put in 2 1/2 pails of sugar and 1 of water, until the tank is nearly full, then turn on the steam, which will warm the water and agitate the sugar. With a little stirring, the sugar is soon dissolved, and the syrup can be drawn off at the bottom. In conclusion, I wish to state that what I have just given you on this question is solely for the preparation of bees for outdoor wintering. Not having any experience in wintering otherwise, I cannot say that it would answer for preparation for indoor wintering.

**HOW TO MAKE TWO OF THE BEST BEE-FEEDERS.**

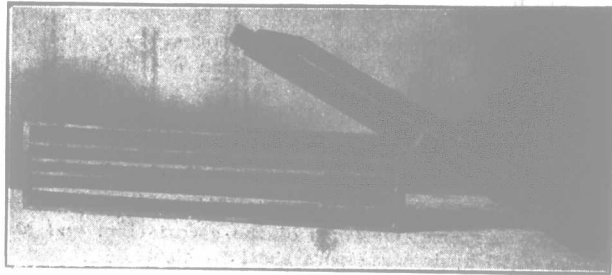
While bees will generally board themselves, there are times when they must be fed. If one has no regular bee-feeders, then it is a mussy job to feed sugar-syrup. I know that some beekeepers have no bee-feeders, on account of pecuniary reasons. That can be overcome, for the best feeders can be made by anyone fairly skilled in the handling of tools. The only expense is for nails, and paraffine to coat the feeders inside.

One of the best bee-feeders in use is the Doonittle Division-board. It is made of the same size as a brood frame, and can, therefore, be set right into the brood-chamber—that is, hive-body.

The end bars of this feeder should be of the same size as those on an ordinary staple-spaced brood frame. The side boards should be about one-sixteenth of an inch thick, and if they are in one piece, all the better. If they are carefully waxed inside, the feeders will not leak, though the sides are composed of several pieces. I use dry-goods-box boards of the proper thickness. The merchant with whom we deal lets me have them gratis. After the side boards have been nailed onto the end pieces (nails should be used of a size that will not split the wood much), the bottom is nailed fast. Then, two short pieces, rabbeted out like a top bar of brood frames, are nailed into each end of the top by which the feeder is to be held. I nail a piece into the center of the feeder. This must come within, say, one inch of the bottom, so the syrup, when poured into one compartment, can readily flow into the other one, too. The feeder is now complete, so far as the woodwork is concerned. The waxing will be treated a little further on, when another excellent feeder has been described.

The Alexander rear-hive-end feeder, which has become known lately, is one of the handiest yet devised. It is practically an inside hive feeder, yet can be filled without opening the hive or disturbing the bees. Its make-up will be understood from the following descriptions:

They can be made in various sizes, but I make them nineteen inches long, four to five inches wide, and two inches deep. The bottom piece and the two end pieces are of three-eighths-inch lumber, and the side pieces of quarter-inch boards. The end pieces are nailed onto the ends of the bottom piece, and the side pieces, in turn, nailed onto the end pieces. In order to prevent many bees from drowning, pieces as long as the inside of the feeder and about one-sixteenth of an inch thick must be nailed about one inch apart into the inside. The pieces must come within about three-



Division Board and Alexander Bee Feeders.

eighths of an inch of the bottom, and, to be better able to get them right, I first nail three-eighths-inch strips on the bottom of each inside end, the partition strips to rest on these.

To use this feeder, the hive body must be shoved backwards on the bottom-board the width of the feeder. It (the feeder) is then blocked up under the exposed part of the hive body. As the feeder is several inches longer than the width of a hive, the end that projects is to be covered with a block, and is the place where the feed is to be poured into it without it being necessary to open the hive.

Both of the feeders described would leak if left just as nailed together. They can be coated on the inside with wax, as well as with paraffine. The latter being just as good, and at the same time cheaper, it is to be preferred.

A pound or so of paraffine is melted in a vessel, which is put into another dish containing water, and the hot liquid poured into a feeder. The latter, while being held over a tub of water, is tipped and tilted, to get the paraffine to close every crack and opening. What is left of the liquid is poured back, to be used for the next feeder. The paraffine that is spilled onto the



Co-operative Fruit Storage Building.

water in the tub will harden at once, and can be remelted. Care should be taken not to get along water when it is taken off the water's surface. One should aim to not only close the openings, but get the whole inside of the feeders coated, to prevent feed soaking into the wood.

Wisconsin. F. A. STROHSCHER.

Officers and members of the Agricultural and Horticultural Societies of Ontario, who may be in Toronto during the Canadian National Exhibition, August 26th to September 7th, are notified that a representative from the office of the Superintendent of these societies will be present in the tent of the Ontario Department of Agriculture, located near the cattle-judging ring on the grounds, from Friday, August 30th, to Friday, September 6th, and everyone connected with these societies is cordially invited to make this tent his headquarters while at the exhibition.

**GARDEN ORCHARD.**

**FRUIT-GROWERS SUCCESSFULLY CO-OPERATE.**

Being somewhat familiar with the different packs of fruit received in the British market, and having noticed the increasing demand for apples bearing the brand of the "Georgian Bay Fruit-growers, Limited," I made up my mind that when I went to Canada in July, one of my first visits would be to the section this fruit came from.

When I got off the train at Thornbury, the first thing I saw was the large storage and packing-house of this company, situated on a convenient siding to the railway. I enquired for Mr. J. G. Mitchell, the manager, and was directed to his fruit farm, about a mile from the station, where I found him attending to a voluminous correspondence, and formulating plans for the coming season's business. Mr. Mitchell was very pleased to explain the aims and methods of their co-operative concern.

The Georgian Bay Fruit-growers, Limited, has been organized under the Ontario Companies Act, for the purpose of engaging in the wholesale and retail selling and shipping of fruit; also the building and operating of cold storage and packing-houses, barrel and box factories, evaporators, etc. In fact, everything that can be done with the fruit and in the making of the packages is covered by the charter of the company. The idea is not new, but a well-tried system, much the same as the orange-growers have in California, and the apple-growers in Oregon, which have proved such a success in those places.

**SOME OF THE ADVANTAGES.**

The co-operative system at once cuts out all the middleman's profits, brings the cost of handling to the lowest possible limit, and places the orchard in direct connection with the largest markets of the world. Barrels and other packages can always be kept in supply, and at the lowest possible cost, which alone is an item of special advantage. Also, better railway, steamship and other accommodation is secured by the company than by individual effort.

**A MOST SIGNAL SUCCESS.**

Starting two years ago with only five stockholders, they now have over four hundred, and the number is constantly increasing. The illustration which accompanies this article gives a very poor idea of their packing-house at Thornbury. This building is constructed of Portland cement. The walls are insulated on the cold-storage plan. There is a four-inch space next wall filled with kiln-dried planer shavings; then inch matched lumber; then inch dead-air space; then four thicknesses of oiled paper, and again with matched lumber. The building has a storage capacity of ten thousand barrels, and from which last season was handled about eighteen thousand barrels of apples. The company have rapidly drawing to completion in Meaford another fruit-storage building, same in construction, size and capacity as the one at Thornbury, and which will be ready in ample

time for this season's crop. Also, they intend to build a fruit house at Collingwood next season, as there is already nearly sufficient stock sold in that section to justify its erection. The company own and operate their own cooper shops, which they find to be a great advantage. **METHODS AND RESULTS.**

The method of handling the fruit is giving great satisfaction to the growers. They pick their own apples and bring them to the fruit house, where they are packed or stored, according to season of variety. Being put up by experienced packers, the grades are uniform throughout, which insures the confidence of the receivers. The company are fully in touch with the

best Old Country houses, who understand the Georgian Bay system, and have the fullest confidence in their brand, thereby enabling them to secure the highest prices the markets can afford to pay. This was amply proved by the results of the past two seasons, when the Georgian Bay people secured the highest prices for barrel apples of any shippers to the British market.

It is not in Britain alone that this co-operative company's brand has secured a firm footing. Mr. Mitchell showed me letters of highest commendation from Western Canada, and large cities in Eastern Canada, and offering to pay from 10c. to 35c. per barrel more than to other shippers. The efficient management of this concern enables the grower to get the last cent there is in his apples out of them, at a minimum of cost.

This is the most successful co-operative company I have had an opportunity of looking into. They started with high ideals, which they are steadfastly adhering to.

London, England.

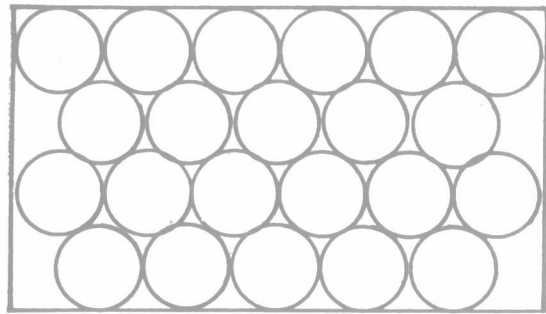
T. WILBERFORCE.



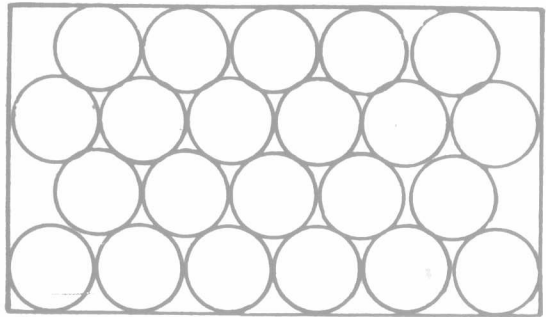
**CO-OPERATIVE FRUIT-SHIPPING.**

Mr. D. Johnson, President of the Forest, Ont., Fruit-growers and Forwarding Association, writes us, under date August 5th:

Your favor regarding publishing of our constitution and by-laws to hand, which, of course, we are pleased to grant. The fruit crop here promises to be good. We expect to have the best and largest apple crop that we have yet had. By-law No. 18 has accomplished this. The spraying of our orchards year after year has



(a) 1st and 3rd Layers.



(b) 2nd and 4th Layers.

Fig. 1.

DIAGONAL.

"2-2 Pack."

3 1/2 Tiers—4 Layers—88 Apples.

produced a much more vigorous growth than formerly, and has brought forth fruit accordingly.

We have decided this year to sell f.o.b. Forest. This, we think, is much the best way for an association to do, as the members can be paid cash and know exactly how much they are going to get. We expect no trouble in selling in this way, as our brand is now well known. This is bringing us letters from dealers in all parts, pressing us to put a price on our pack, and to allow them a chance. Yesterday mail brought us letters asking for over 100,000 bbls. in all, but as our pack will not be 10,000 bbls. we will not be able to supply the demand.

The co-operative associations in Ontario are now firmly established; their fruit is sought after in all markets, which must be a painful fact to the fruit-growers and farmers who laughed at them in the days of their infancy. By-laws from 7 to 15 apply only to orchards that are not packed in Central packing-house. These are very seldom made use of. D. JOHNSON, Lambton Co., Ont.

**CONSTITUTION.**

1. This association of fruit-growers shall be known as "The Forest Fruit-growers and Forwarding Association."
2. The object of the association is the better production and sale of fruit grown by its members.
3. The annual meeting of the members of the association shall be on the first Monday in December in each year. Special meetings may be held at any time upon the call of the President by written notice.
4. At the annual meeting the directors of the association shall be elected.

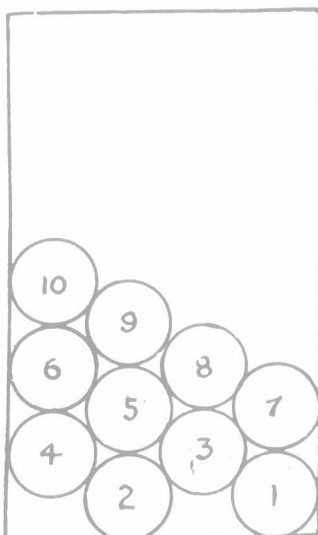


Fig. 3.—How to Start a "2-2" Diagonal Pack.

5. At any meeting of the directors a two-thirds representation of the directors shall constitute a quorum for the transaction of business.

6. The officers of the association shall consist of a President, Vice-President and Secretary-Treasurer.

7. Immediately after the annual meeting and the election of directors, it shall be the duty of the directors to elect officers as named in by-law six, the President and Vice-President to be chosen from the directors.

8. The President, or in his absence the Vice-President, shall preside at all meetings of the association. In the absence of both, a presiding officer shall be chosen from those present.

9. The Secretary-Treasurer shall keep a record of the proceedings of all meetings of the directors and the association. He shall also keep a record of all the receipts and disbursements of the association.

10. Any fruit-grower within a radius of eight miles of Forest shall be eligible to become a member by a two-thirds vote of the directors of the association.

11. The constitution or by-laws may be amended at any regular or special meeting upon a two-thirds vote of the directors.

**BY-LAWS.**

1. The Board of Directors shall meet semi-monthly, or monthly, or at the call of the President; such meetings not later than July 1st of each year.

2. It shall be the duty of all officers to attend regular or special meetings of the association, and hold office until their successors shall be elected.

3. When a vacancy shall happen by death or resignation in any of the offices, it shall be filled at the next regular or special meeting.

4. At the annual meeting of the association in each year the President shall render a statement of the business of the season in full.

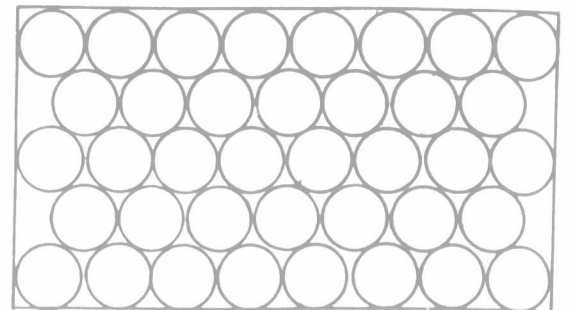
5. Each and every member of the association shall pick his fruit in prime condition and deliver same at packing-house or shipping point.

6. An inspector or manager of the association shall be appointed by the directors, to supervise the work of grading and packing of the fruit of the association, the salary of the said inspector to be determined at the time of appointment.

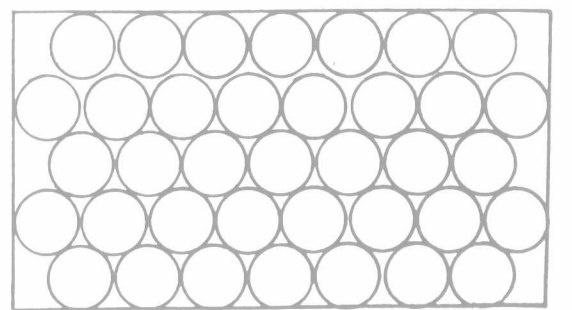
7. The manager shall give personal instructions in their orchards to every shipper shipping through the

17. Whenever in the opinion of the directors it is impossible for the association to receive at its packing-house all fruit grown by its members, they may permit individual members to grade and pack the same for shipment through the association, such grading and packing to be subject to the inspection of the Inspector appointed by the association.

18. All members of the association shall spray their orchards at least four times, and as often beyond that as they deem proper.



(a) 1st, 3rd and 5th Layers.



(b) 2nd and 4th Layers.

Fig. 2.

"3-2 Pack."

4 1/2 Tiers—5 Layers—188 Apples.

19. No fruit-grower shall be admitted as a member of the association except by a two-thirds vote of the directors.

**PICKING AND PACKING OF APPLES.**

Presuming that the fruit has been well grown, the next important operation is the picking. The time of picking does not receive sufficient attention from the hands of all Canadian apple-growers. Just when to pick, has been the subject of very elaborate experiments by the Department of Agriculture of the United States, and the results do not carry out all the popular opinions upon this subject. It is commonly assumed that the greener the apple is picked, the longer it will keep. Such did not prove to be the case.

The best time to pick an apple, either for storing or for shipping, is when it has reached nearly its full color, and before the seeds have assumed a dark-brown color. Apples picked before or after this stage were found to depreciate more quickly than those picked just before full maturity had been reached. The apples on any particular tree do not ripen all at the one time. In the case of early apples, the unevenness of their ripening is very marked. With some varieties the ripening period extends over several weeks. With all varieties, and more particularly with early varieties, it is absolutely necessary to go over a tree several times to secure the fruit at the proper period of maturity. Winter varieties, especially in the north, may all be picked at one picking, but even with the winter varieties it will be found

3 tier.                      144 (L)                      Grade No. 1

**N. SPY**

**CHOICE CANADIAN APPLES**

PACKED BY

**JOHN JONES**

BRIGHTON, ONT.

(27)

Suggestion for Marking Boxes.

association, how to grade and mark their fruit according to the Fruit Marks Act.

8. That he will see to the ordering of and securing of cars, and will obtain whatever necessary refrigerator cars, which he sees are properly iced.

9. He shall keep in constant communication with the salesman, and shall receive orders and communicate them to the members of the association.

10. He shall see to the making up of car lots, and notifying members when to pack and deliver fruit at packing-house or shipping point.

11. He shall keep a record of name and grade of fruit of each shipper in each car, and forward a copy to purchaser.

12. He shall also inspect a certain number of each shipper's barrels in each car, and immediately before shipment, in order to ascertain if the Fruit Marks Act has been carried out, and if he finds that any shipper has intentionally disobeyed the Fruit Marks Act he shall be refused acceptance of fruit and held responsible for space in car.

13. It is agreed that shipper shall be responsible for space ordered in car whether he fills it or not.

14. If the inspector disagrees with shippers regarding grade apples, for the settlement of such disagreement he shall choose one director, the shipper one director, and both jointly any disinterested person, who shall decide, basing their decision on the Fruit Marks Act.

15. All charges for icing cars to be paid before car leaves, such charges to be collected by a levy on each barrel the car contains.

16. Each and every member shall have the right to give away such fruit of his own raising as he may elect, but he shall not make sale of fruit outside the association, except windfalls and cull grades, or any fruit that may not be accepted by the association. Any member so doing shall pay into the association treasury the sum of 50 cents per barrel for all fruit so sold, excepting grades aforesaid.

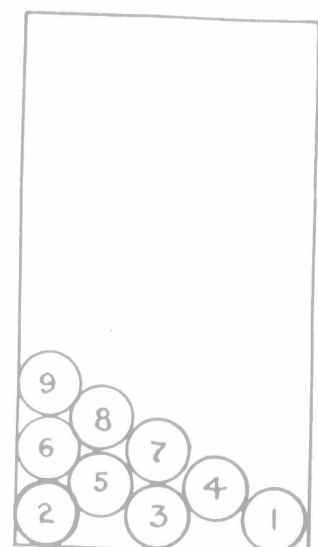


Fig. 4.—Method of Starting a "3-2" Diagonal Pack.

that a few, at least, are matured before the balance of the fruit is ready, and it is these over-matured apples that cause trouble later in the winter. Had these over-matured apples—usually the very finest specimens on the tree—been picked first and marketed early in the season, they would have brought the very highest prices. Leaving them in the general stock, they deteriorate very rapidly, and if they are fit to repack at all in January or February, they are very liable to go bad in the barrel afterwards on the trying journey to market. In the southern portion of Ontario nearly all the winter varieties should be picked over at least twice. This will help to materially reduce the losses in storage and in shipment.

It is assumed that only hand-picking will be considered; even for canning purposes, it pays well to pick by hand, though it is a common practice, I am sorry to say, for fruit-growers selling to canneries to simply shake the apples from the trees and pick them from the ground.

Before the operation of packing is commenced, the ground under the tree should be thoroughly cleared of windfalls. During the process of picking many apples will fall to the ground that are perfectly good for many purposes, but cannot be included in the regular shipping stock. Indeed, many of our most careful growers clean their orchards carefully not later than the middle of September, and make excellent use, as evaporated stock or for local markets, of the windfalls from that time till the end of the season. In the case of a large orchard, the proper utilization of the windfalls for evaporated stock or for canning purposes would make a fair profit on the season's business.

In a small orchard few devices are needed in the way of ladders, picking bags, etc. One of the most useful ladders in any orchard is made by taking a light, straight, white-spruce pole and ripping it in the middle within a foot or two of the top end, having previously bored holes through the stick, which when the two halves are spread apart will take the rounds to form a ladder. The rounds will gradually decrease in length from top to bottom, though the top of the ladder will bend around with a fairly sharp curve over the last two or three rounds. A ring is placed around the top of the ladder at the point where the sawing ceased, and the foot or eighteen inches above this ring will then be smoothed off and brought nearly to a point. This point can be laid in the crotch of limbs, and the ladder can then be ascended with perfect safety. If two or three of these are made of different lengths, scarcely any other device is needed to reach all parts of the tree. Where, however, a tree is very symmetrical and of the low-headed type, it pays well to have three short ladder-stands, four or five feet high, supporting two stout planks, that can be placed just outside the tree, upon which the picker may stand while he gathers a very large portion of the fruit. Picking is done much more rapidly when the picker has a convenient place like this upon which to stand.

There is no device which is much handier than the round-bottom peck basket, lined with burlap. A wire hook shaped like the letter S is convenient to attach it to limbs. There are a variety of bags, some of them fitting over the shoulder, others made apron form, all of which have certain merits. With any I have seen in use there is always a tendency to bruise the fruit more or less. All have the same objections as a picking receptacle, as a bag has the same defect as a carrying receptacle.

Closely connected with the picking question, comes the question of whether the packing shall be done in the open air in the orchard or in a packing-house. Preference must be given to the packing-house system. In that case, it will pay the orchardist to have a number of boxes made, holding about half a bushel or slightly over, and made to fit into a frame on a spring wagon, so that they may be hauled directly from the orchard to the packing-house. The packing-house need not be an elaborate building, and may be used for many purposes. The use of such a building gives the farmer an opportunity of utilizing his time to the best advantage. It also makes the supervision of the graders and packers much easier, and there is less danger of dirtying the barrels than if packed in the orchard.

The proper packing of apples in either boxes or barrels implies that they have been properly picked and graded.

After picking, the next great care should be to cool the apples as low as possible—of course not below 32 degrees—and it is in this condition that they should be packed under all circumstances.

The package, whether barrel or box, should be of good material, both as to appearance and as to quality. The barrel is likely to be the favorite package for Canadian apples for many years to come, hence the necessity of giving every attention to this package.

The staves should be sound and free from large knots or shakes, and jointed 9-16 in., and cut five to 2 inches. The head should not be less than half an inch in thickness, clean and sound. Special care should be taken to have the head of good

quality, inasmuch as it is the weakest part of the barrel. It is highly desirable that the quarter hoops should be double, as well as the end hoops, making eight in all. A careful record by the Fruit Inspectors at Montreal showed that the eight-hoop barrel was much the safer package, and that the shipper was well repaid for the extra cost by the safety which was insured to his fruit.

Sufficient care is not given to the preparation of the barrel. It should be neither too green nor too dry. If too green, it is very apt to mold on the inside, and present an unsightly appearance when opened; if too dry, the staves swell after the fruit has been packed, and, in

one side only, it is perfectly legitimate and proper to lay the second row with the colored portions showing through between the spaces of the first row. This face having been neatly made, the first basket of the properly-graded apples is placed upon it. After the second basket is placed in the barrel, the barrel should be shaken or racked slightly, not so as to throw the apples against each other or against the side of the barrel, but just sufficient to settle them in place; and this shaking or racking must be done after each basket has been placed in. When the barrel is full to within two or three layers of the top, a filler made of a round piece of plank, slightly smaller than the head of the barrel, padded with the heaviest saddler's felt, is placed upon the apples. Slight pressure is put upon this by the operator while he gives it a final racking. This usually settles the fruit into place and leaves a level surface upon which the last process or tailing-up can be done. This process of tailing is the most difficult of any part of barrel-packing. It consists in arranging the last two rows of apples very evenly, so that they will project slightly above the chime of the barrel. The head is then placed on and pressure is applied. If the tailing has been well done, this pressure will be borne equally by each apple in the last row. If it is not well done, some of the apples in the last row will project, taking the greater part of the pressure, with the result that some of them will be badly bruised, if not altogether crushed. If the head has been pressed into place and the end hoops knocked down to the proper place, six nails are driven through the top hoop and staves into the head, but on no account put nails through the second hoop, as this invariably spoils some apples, and is quite unnecessary.

The liners, of course, are put in the finished head, and these liners should always be kept moist, so as to fit snugly into place.

The particulars of the variety, grade and the packer should be neatly written in lead pencil near the chime, as a guide to the proper stenciling of the barrel later on.

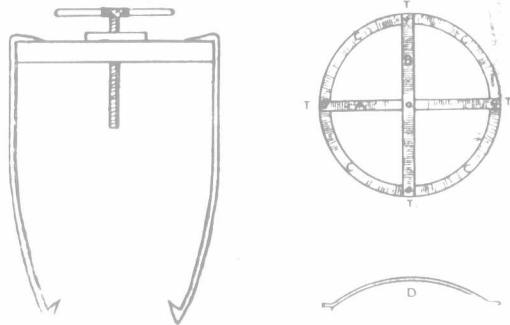
Paper heads on the top and bottom are to be recommended. No device is better than ordinary light pulp board.

The pressure should be very carefully regulated, and will vary with the purposes for which the apples are packed and with the variety in the barrel. Early apples, being very soft in texture, require special care. Some later varieties, notably the Spy, split very readily under heavy pressure. Others, like the Russets, require very considerable pressure if intended for long shipment. If the apples are to be stored and repacked before selling, they should be pressed very lightly. After packing, no matter what the destination of the fruit may be, they should be got under cover at once, and into as cold a place as possible.

Box-packing is less familiar to Eastern Canadian growers, but is rapidly coming to the front. To pack apples rapidly, a good eye and considerable practice is required. The apples should be packed in layers, each layer, if possible, to be uniform. At first sight, it would appear impossible to pack every size of apple in one size of box and fill it properly, yet this feat is performed. Of the many different styles of pack, the most useful, perhaps, are the 2-2 and 2-3 diagonal. These styles of pack are illustrated in the accompanying diagram. Figure 3 shows how to start a 2-2 diagonal pack, the first apple being placed in the corner of the box, and the space between that apple and the opposite side is then divided into two parts by the next apple. The third and fourth are placed in the spaces between one and two and the side of the box; but if the apples are the right size for this pack they will not touch the end of the box. The fifth apple is placed between three and four, and the sixth is wedged between five and the side of the box. This will complete a diagonal row, and the diagonal rows are then continued until that layer is complete. The next layer is built up in the same way, only the first apple is placed in the opposite corner and the process is then continued.

Figure 4 illustrates the starting of a 2-3 pack, which is self-explanatory.

In addition to this, there is another method of packing which is described as a straight



The Iron-circle Press Head, for Pressing the Heads of Apple Barrels.

swelling, of course, enlarge the capacity of the barrel just enough to render the apples slack.

The quarter hoops should be forced down quite firmly, and three nails driven into the outside ones, these being carefully clinched on the inside. There is no excuse for nailing the second hoop at each end.

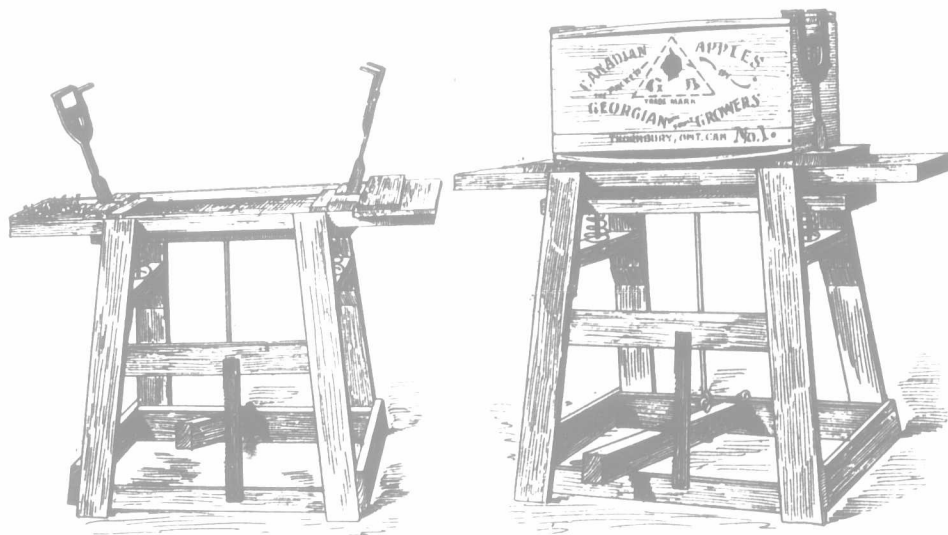
The face end of the barrel is nailed with six nails, and headlines placed upon it. These headlines are narrow strips of about the size of the thicker side of barrel hoops, and half an inch



Sample Marking on Head of Apple Barrel, Showing the Particulars Required by the Fruit Marks Act.

wide, nailed with four or five nails upon the outside of each end across the grain of the heading and snugly into the staves, so as to form really part of the C. This adds very greatly to the strength of the head.

The fruit for the face should have the stems taken off by a stemmer, and should be placed stem-end down in circles as neatly as possible. Such fruit must be of the same quality as the rest of the barrel. If the apples are colored on



Nailing Bench.

After the packing of the box is completed, the cover must be carefully nailed in position. The lining papers are folded neatly at the edge of the top of the box to allow for the swell, and will then overlap slightly at the center. This is the style, with some modifications, in general use on the Pacific Coast, and can be readily made by anyone handy with tools, with such assistance as may be obtained at any blacksmith shop.

pack. In the straight packs each apple is directly over another, and all tiers are alike. This, at first sight, would seem to be the easiest method of packing apples; nevertheless, the straight packs are really not as useful as the diagonal packs. Beginners sometimes measure with a single row of apples along the corners of the box from end to end and from top to bottom. They can thus determine more or less accurately what style of pack will best suit that size of apple. Such devices, however, can soon be dispensed with as the packer becomes familiar with the art of packing.

No explanation that can be given in words will take the place of practice, no matter how familiar the operator may be with the descriptions of the various packing methods. The hand must move almost automatically, and the eye must be able to detect differences in size and shape too small to be recognized by the average customer.

One advantage of packing in tiers is that the number of apples that the box contains can be determined quite readily. Another advantage is that, by opening either the side or the top of the package, the contents are practically all open for inspection.

It is essential, in good box-packing, that the box must be packed tight, and some device must be used to keep it tight until the consumer opens it. This device is the swell or bulge in the middle of top and bottom which every box should have when it is completed. This swell is made by using apples that are slightly smaller in dimension towards the end of the box, while larger apples are used towards the middle. If this is systematically carried out, the box-packer will have the fruit a half an inch or somewhat less above the box at the ends, and an inch and a half higher than the box at the middle. The top and bottom covers being made of very flexible material a quarter of an inch thick, is placed upon the fruit so that when the ends are nailed down under pressure the top and bottom will project about three-quarters of an inch each above and below the sides.

Cleats, of course, are put along the ends of the boxes upon both top and bottom at each end, partly to protect this bulge, but more particularly to keep the top and bottom covers of the box from splitting with the four nails that are used in fastening it to the end pieces. When boxes are carried on wagons, or packed in cars, they should be laid upon the sides, not upon the top or bottom. It will thus be seen what an advantage it is to have the sides of the box somewhat rigid, as it will be if it is composed of good three-eighths-inch stuff, or only very slightly heavier. The top and bottom covers should not be thicker than one-quarter of an inch, and should be made of the very best material. The want of good material cannot be made up by increasing the thickness.

A. McNEILL.

#### CULTURE AND MARKETING OF APPLES.

The following questions, asking for detailed information regarding the growing and marketing of apples, were contained in a letter addressed last month to the Ontario Agricultural College, and answered by Prof. Hutt, whose reply is given herewith. The writer asked for information particularly as to the following points:

1. The variety of stock which would be most likely to be profitably raised in the Oakville district for export, giving (a) the name of the variety, (b) the age the tree should be when planted, (c) how long after planting each variety is likely to become fruit-bearing, and (d), if possible, what production might reasonably be expected per tree or acre from first fruit-bearing up to, say, ten years or over.
2. Cost of cultivation per acre.
  - (a) Original cost of trees.
  - (b) Cost of planting.
  - (c) Plowing and harrowing.
  - (d) Fertilizing, with relative cost of various kinds of fertilizers used.
  - (e) Spraying.
  - (f) Pruning.
  - (g) Picking.
  - (h) Packing.
  - (i) Cost of barrels, cost of boxes. (Please advise me if I am right in assuming that 3 boxes make a barrel.)
  - (j) Average cost of transportation per barrel or box (Oakville to Montreal, and Montreal to Liverpool).
  - (k) Insurance.
  - (l) Commission for selling in Great Britain.
  - (m) If possible, ruling prices per barrel and per box of different varieties when sold from the ship in Great Britain for several years past.
  - (n) Approximate cost of erection of storage plant and capacity.
  - (o) Approximate cost of erection of evaporating plant and capacity.
  - (p) Approximate difference in price obtained on a barrel basis when shipped by barrels or in boxes.
  - (q) Whether it would be more desirable if boxes are used, to ship in boxes with crates, or without crates and each apple wrapped

in paper, or with crates and also each apple wrapped, if a special kind of paper is used for wrapping to prevent deterioration or damage from moisture.

Any suggestions or information that you could give me in reference to methods of storage, winter and summer, and shipment by rail and water, etc., will be appreciated; also any general information or sources of information with which I might be put in touch.

INQUIRER.

ANS.—1. (a) For information regarding the varieties most likely to be profitable in the Oakville district, I would refer you to the report of Mr. A. W. Peart, who is the Government experimenter for the Burlington district. His list of varieties you will find given on page 4 of Bulletin 147. This list, of course, is meant to cover the season from early to late. For profit, I think I



C. M. Bryant, Wollaston, Mass.

President American Poultry Association.

would be inclined to plant most largely of the last half-dozen on the list: Ribston, Blenheim, King, Greening, Baldwin, Spy.

(b) Opinions differ as to the most desirable age of trees for planting. Some like a large, four-year-old tree which has been well grown in the nursery. Others prefer good thrifty two-year-olds. For my part, I prefer the latter, from the fact that they can be purchased more cheaply, and can be pruned back to start the head at whatever height may be desired.

(c) The age at which varieties of apples come into bearing varies considerably with the different varieties. Such varieties as Ontario and Wealthy often bear, even in the nursery row, on three- and four-year-old trees, while Northern Spies have to attain ten or twelve years of age before they show much sign of bearing fruit. Probably, on the average, six or seven years might be taken as the age of coming into bearing.

(d) The production from trees for the first ten years will depend altogether upon the varieties, as may be inferred from what has just been said regarding age of coming into bearing.

2. (a) The cost of trees at nursery now varies from \$20 to \$30 per hundred for good thrifty, well-grown trees.

(b) Cost of planting will vary, according to the number of trees planted per acre, and kind of labor employed. It should, however, be done for 5 cents per tree.

(c) Cost of plowing and harrowing can be determined by current rate of wages for man and

team. At present rates, it would cost from \$3 to \$4 per acre.

(d) No definite information can be given regarding cost of fertilizers necessary. This will depend entirely upon the nature of the soil and fertilizers used. As a rule, clover seed and wood ashes are the most economical fertilizers, clover seed, of course, being used to get a cover crop, which can be plowed under to keep up fertility of the soil. For information regarding cost of barnyard manure, if you thought of purchasing this in Toronto, I would refer you to dealers.

(e) Cost of spraying depends largely on size of trees and number of sprayings given. It has been estimated at \$6.25 per acre after trees reach bearing age.

(f) Cost of pruning cannot be definitely stated, as this depends entirely upon size and nature of trees. It might vary all the way from 2 cents to 40 cents per tree.

(g) Cost of picking also varies from 10 to 20 cents per barrel, depending upon the size of trees and nature of the crop. Probably, on an average, it would cost from 12 to 15 cents per barrel.

(h) Cost of packing varies from 12½ to 15 cents per barrel.

(i) Eight-hooped apple barrels now cost from 38 to 40 cents per barrel. Boxes cost from 14 to 15 cents per box. Three boxes make a barrel.

(j) Export rate from Oakville to Montreal is 19 cents per hundred pounds. The estimated weight of a barrel of apples is usually put at 165 pounds. The ocean rate from Montreal to Liverpool is 2s. 6d. per barrel. For boxes, the rate is 2s. 6d. per 40 cubic feet.

(k) The cost of insurance varies as the season advances. For full information, write the Marine Insurance Company for rates.

(l) Commission for selling fruit in Great Britain is 5 per cent. on gross sales. Portage, cooerage, etc., usually about 7s. per barrel.

(m) The prices obtained per barrel in Great Britain during the past few years have varied considerably, and I can give you no very definite information regarding averages. Prices have ranged all the way from 6s. 7d. to 22s. 6d. per barrel.

(n) For information regarding cost of erection of storage plant, I would refer you to John Mitchell, Clarksburg, manager of the Georgian Bay Co-operative Fruit-growers' Association. They have built one of the best storage houses I know of in the Province, with a capacity of about 40,000 barrels. Cost of building was about \$4,000.

(o) For information regarding cost of evaporating plant, I would refer you to Mr. R. J. Graham, Belleville, who has built more of these than any other man in the Province.

(p) I cannot give you definite information regarding the difference in price obtained for fruit in barrels and boxes, but I may say that, as a rule, it pays to pack the fancy fruit in boxes, as these usually bring a somewhat better price than fruit in barrels.

(q) It pays to take special care in putting up fancy fruit either in boxes or barrels. When packed in barrels, a paper surface should be used at both top and bottom of the barrels, to prevent bruising and prevent fruit being crushed from the head. As to whether it is best to wrap each fruit separately, depends largely upon the class of fruit and season of shipping. Varieties such as Duchess and McIntosh, which are easily bruised, are better being wrapped in paper, whereas firmer varieties, such as Baldwins or Ben Davis, would not require such wrapping.

For further information regarding the apple trade, I would recommend you to get a copy of Bulletin No. 18, on "Co-operation in the Marketing of Fruits," by A. McNeill, Chief of the Fruit Division, Department of Agriculture, Ottawa. This gives a great amount of valuable information to apple shippers.

In conclusion, I may say that the profits to be derived from going into the business of growing and shipping apples depends very largely upon the



Hampshire Yearling Ewes.

First prize pen at Royal Show, Lincoln, 1907. Exhibited by Sir William George Pearce, Bart.

management given. Unless one can give it his own personal attention, it will pay him to employ an expert manager and pay him well for his services, to insure the work being looked after properly. It is practically impossible to sit down and figure out profits to be derived from an orchard, as there are so many things to be taken into consideration which cannot be definitely figured upon unless one is sure of first-class management.

H. L. HUTT,

Horticulturist, O. A. C., Guelph.

### HORTICULTURAL PROGRESS.

Prepared for "The Farmer's Advocate" by W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

#### PACKING APPLES IN BARRELS AND BOXES.

Since the passing of the Fruit Marks Act, in 1901, and the establishment of the Fruit Division in connection with the Department of Agriculture, the Dominion Government has done much to improve the methods of packing apples in Canada. In addition to the beneficial effect of the Fruit Marks Act, which makes it imperative that fruit shall be packed according to legal standard, the demonstrations in packing which have been given year after year, at the fall exhibitions, and at special meetings by experts, have spread a knowledge of what good packing means throughout the country.

It is difficult, however, for the average farmer to remember from one year to another all the possible methods of packing apples, and the sizes which admit of certain methods; and, moreover, there are many persons who have not seen a packing demonstration, hence the latest bulletin of Mr. Alex. McNeill, Chief of the Fruit Division, on "The Packing of Apples in Barrels and Boxes," will be welcomed by all fruit-growers, for in it we have a manual of packing which can be used for reference at any time, and as the bulletin has a large number of good illustrations, showing different methods of packing in the various stages, from the "facing" of the barrel or box to the "tailing," the information given is made very clear. It would be impossible in a review of this kind to go into all the details contained in this useful bulletin, but some of the matters dealt with may be briefly referred to. Much information is given on the barrel, including descriptions of the different kinds of barrels made and used in Canada. Emphasis is placed on the economy of an association or individual making his own barrels, the work being done during a slack time, when hired helpers can be retained on the farm, where otherwise they might be dismissed, and not so easily got again. The process of packing a barrel of apples is described in detail. That part relating to pressing may be quoted in full, as there is no doubt but that much injury is done to apples both through overpressing and through not pressing enough. "The exact pressure which must be given will depend somewhat upon the variety of the apple. If they are packed for storage for a short trip, then the pressure need not be so heavy. If they are packed for export, it will be better to press them heavily, but not so as to break the skin of any particular specimen. It has been the experience of the fruit inspectors, who open a great many barrels during the season, that slackness in barrels is as often caused by overpressing as underpressing. Overpressing will break the skin of the apple, or bruise it severely, inducing decay in one or more specimens, which very quickly causes slackness. Certain varieties, too, will require and stand more pressure than others. The Spy has to be pressed very moderately, as the apple splits readily under pressure. Russets, on the contrary, will stand much heavier pressure without breaking the skin, and appear to require heavy pressure to prevent slackness from evaporation."

The way the barrel is marked after it is packed is almost as important as the packing itself. The marking should be clear and simple, and in compliance with the Inspection and Sale Act. An attractive trade-mark should be used by every fruit-grower.

There is a chapter on "Boxes vs. Barrels," in which are given the pros and cons of each. These are summed up in a few lines, as follows:

1. The highest-priced apples are shipped in boxes.
2. The box is the only practical package in which an apple can be transported with any reasonable degree of economy, in a fit condition for the highest dessert trade.
3. Only the best grade of apples will pay in boxes.
4. The retail merchants, other things being equal, prefer the boxes for at least a large part of their trade. The auction market and fruit trade of Great Britain do not take kindly to boxes.

The experience of Canadian shippers has not, on the whole, been favorable to the exporting of apples in boxes, but a few persons have been successful, and Mr. McNeill believes that lack of the success of the majority of shippers has been due

to improper packing and the packing of a too poor grade in the boxes.

A careful and detailed description is given of the apple box, the legal measurements for which are 10 inches deep, 11 inches wide, 20 inches long. There are also details given for grading and packing, and for closing the boxes. The many ways in which apples of different sizes may be packed are treated of and illustrated. At the end of the bulletin there are very useful instructions given to box-packers, and also quotations from the Inspection and Sale Act, being that part of it formerly known as the Fruit Marks Act.

This bulletin is a valuable sequel to Mr. McNeill's bulletin on "Co-operation in the Marketing of Apples," which appeared earlier in the season.

#### BUSH FRUITS.

A bulletin on "Bush Fruits," prepared by W. T. Macoun, has just been published, as Bulletin No. 56, of the Central Experimental Farm series. The fruits dealt with in this bulletin are the currant, gooseberry, raspberry, blackberry and dewberry. An historical sketch and cultural directions are given for all of these fruits, and lists of varieties recommended. There are descriptions of 199 varieties, including 41 red currants, 15 white currants, 33 black currants, 38 gooseberries, 50 red raspberries, 11 black-cap raspberries, 9 blackberries, and 2 new dewberries, which should prove useful to fruit-growers.

Descriptions of the principal diseases affecting the various bush fruits are published, with remedies for the same, and there is a chapter on injurious insects, contributed by Dr. Jas. Fletcher, Dominion Entomologist. A spraying calendar gives the formulae recommended for controlling the fungous diseases and injurious insects referred to. In addition to the matter already mentioned, the results of cultural experiments, variety tests and spraying experiments conducted at the Central Experimental Farm during the past twenty years are published. There is a special chapter on the work of Dr. Wm. Saunders, Director of the Dominion Experimental Farms, who has done much



Royal Review (13712).

Clydesdale stallion; foaled 1905. Winner of first and male championship, Highland Show, 1907. Sire Hiawatha.

towards the improvement of bush fruits. A large number of Dr. Saunders crosses and seedlings are described, and some recommended. The results of cultural experiments need not be given in detail at this time, but lists of varieties are always interesting, and the following are those recommended:

#### VARIETIES OF BUSH FRUITS RECOMMENDED.

**CURRANTS.**—Red, for general culture: Pomona, Victoria, Cumberland Red, Red Dutch, Greenfield, Rankin's Red, Red Grape. Where bushes are protected with snow in winter, and for the milder districts: Pomona, Victoria, Cumberland Red, Wilder, Cherry, Fay, and Red Cross. White: White Cherry, Large White, White Grape. Black: Saunders, Collins' Prolific, Buddenborg's, Victoria. Of those not yet on the market which are considered equal to or better than the above, the following are the best: Kerry, Eclipse, Magnus, Clipper, Climax and Eagle.

**GOOSEBERRIES.**—American: Pearl, Downing, Red Jacket. English (from experience at Central Experimental Farm, as being free from mildew): Companion, Eagle, Glenton Green, Queen of Trumps, Snowball. English usually recommended: Whitesmith, Industry.

**RASPBERRIES.**—Red (early): Brighton, Count, Marlboro; Red (main crop): Cuthbert,

Herbert. Yellow: Golden Queen. Purple: Columbian, Shaffer. Black Cap: Hilborn, Older, Gregg, Smith, Giant.

For Home Use.—Red: Herbert, Sarah, Clarke, Heebner. Yellow: Golden Queen. Purple, Columbian. Black Cap: Hilborn, Older, Gregg, Smith, Giant.

**HARDEST VARIETIES.**—Red: Brighton, Count, Herbert, Sarah, Turner (Loudon has proved one of the hardest in the Northwest). Purple: Shinn. Yellow: Golden Queen. Black Cap: Hilborn, Older, Cumberland. A new variety is promising.

**BLACKBERRIES.**—Agawam, Snyder, Eldorado; and, for southern districts, Kittatinny.

**DEWBERRIES.**—Lucretia, Mayes (Austin Improved).

#### A FEW WORDS FROM MR. GOODGROWER ABOUT HIS GARDEN.

Editor "The Farmer's Advocate":

PEARS to me my garden BEETS all this year. Let me tell you what I have:

"One Thousand to One"  
"American Wonder"  
"White Beauty"  
"Everlasting"  
"World Beater"  
"Matchless"  
"Perfection Heartwell"  
"Early Giant"

BEANS  
PEAS  
POTATOES  
CUCUMBERS  
CABBAGES  
TOMATOES  
CELERY  
CORN

In the flowerbeds there is almost everything one could CAULIFLOWER.

You should see the MORNING GLORY of it before many people are ASTER.

LETTUCE hope that nothing will TURNIP to SQUASH the success of it.

JOIN GOODGROWER.

#### A VALUABLE GARDEN TOOL.

I came upon this tool by accident. I had been looking for a tool that would stir the soil between the beets, and the narrow rows of carrots and onions.

I did not wish a tool that would go deeply into the soil, thus destroying the tender rootlets that have so much to do with feeding the young plants. I found that the garden hoe did not always answer the purpose satisfactorily. I had killed all the weeds, and I now was anxious to preserve a dust mulch between the plants as well as between the rows. I was looking for a narrow garden rake when I came upon a garden rake that was shorn of its teeth on one side, having only two teeth on one side of the handle. A hammer and cold chisel soon made the balance true, and I found myself provided with one of the most valuable garden implements in my possession. It is just the thing for breaking up the crust between mangels and such crop, while

in the garden, where the rows are narrow, it allows me to do my earth-stirring while backing up in this way, leaving the earth untramped when the work was done. The women are in love with this implement, as they never had anything before this quite so effective in stirring the soil among their flower plants. The value of this implement in preparing the way for the potato just showing its nose through the garden soil will be apparent to anyone familiar with the need of breaking up the crust on clay soil. It simply can't be beat in stirring the earth around young strawberry plants. Indeed, its use is legion.

A. M.

Wentworth Co., Ont.

#### SPECIAL OFFER TO NEW SUBSCRIBERS.

We make this special offer to new subscribers: Any person not already on our list may, by paying us or any of our agents 40 cents in cash, obtain "The Farmer's Advocate and Home Magazine" from now till the end of 1907. This will include the magnificent Christmas number, to be published in December, a number which many would consider good value in itself at 40 cents, or even at 50 cents. Forty cents for four months, with the Christmas number thrown in! It is a liberal offer. Show it to your friends.

## THE FARM BULLETIN.

### PRINCE EDWARD ISLAND WANTS THE TUNNEL.

Prince Edward Island wants to be connected with the mainland by a tunnel under the Straits of Northumberland—there is no doubt about that. The determination is expressed by inscriptions on letter heads, picture post cards, numerous newspaper editorials of positive tone, and in every way that ingenuity can devise. The latest thing in tunnel literature, as our good friend, Rev. A. E. Burke, the stalwart champion of the tunnel agitation, expresses it, is a picture postal depicting an icebound steamer between Cape Tormentine in New Brunswick and Cape Traverse in P. E. Island. At the bottom one reads:

"At the Capes in the winter you stand on the shore,  
New Brunswick behind, P. E. Island before,  
And you long to get over, but how can you cross?  
You are stopped by the wind, and the lolly and frost.

But this is to tell you a way has been planned  
By which you can pass to the opposite strand,  
So don't be discouraged, despondent or blue—  
Hold this to the light and you'll see your way through."

Holding the card to the light the solution appears as a tunnel connecting the Capes. Success to the Island cause.

### SUPERVISOR OF SCHOOL GARDENS IN NEW BRUNSWICK.

D. W. Hamilton, M.A., Ph. D., who recently resigned the Principalship of the Macdonald Consolidated School at Kingston, N.B., after having filled the position for several years with conspicuous success, has been appointed Provincial Supervisor of School Gardens and Instructor in Biology and Agriculture in the Normal School in his native Province of New Brunswick. The new position was suggested, we understand, by Dr. Jas. W. Robertson, who has arranged to pay half the salary for two or three years.

In the summer seasons Prof. Hamilton will be engaged for two or three months with the Seed Branch, Ottawa, as inspector of seed plots in New Brunswick, in which capacity he is called upon to discuss seed selection, weeds, etc., with New Brunswick farmers. In this work he has been employed for some weeks past. In a recent letter he writes that on some farms at Chatham he found many specimens of the notorious ragwort (*Senecio Jacobaea*). Grain and root crops are in general looking well, and the upland hay crop will be a record one. Marsh hay (fresh water) will be nearly a total failure, as nearly all lowlands are flooded.

### JUDGES AT WESTERN FAIR, LONDON.

**HORSES.**—Thoroughbred and saddle horses—W. H. Millman, Toronto. Hackneys and high-steppers—Allen Cameron, Annapolis. Carriage and Coach—J. Cromarty, Galt. Roadsters—Wm. Bishop, New Hamburg. Clydesdales and Shires—Geo. Charlton, Duncrief. Heavy drafts, etc.—P. McGregor, Brucefield. Ponies—Dr. Barnes, London.

**CATTLE.**—Shorthorns—John Isaac, Markham. Jerseys—J. W. Humpidge, London. Ayrshires—John McKee, Norwich. Holsteins—A. C. Hallman, Breslau. Herefords, Angus and Galloways—T. E. Robson, London.

**SHEEP.**—Shropshires—Albert Shields, Caistorville. Oxfords—J. E. Cousins, Harriston. Southdowns—W. H. Beattie, Wilton Grove. Dorsets—John Gardhouse, Highfield. Cotswolds—John Kelly, Shakespeare. Leicesters—A. Whitelaw, Guelph. Lincolns—D. A. Campbell, Strathburn. Hampshires—J. T. Gibson, Denfield.

**SWINE.**—Yorkshires and Tamworths—A. C. Hallman, Breslau. Chester Whites—D. C. Flatt, Millgrove. Berkshires—S. Dolson, Alloa. Any other breed—D. C. Flatt, Millgrove.

**POULTRY.**—S. Butterfield, Windsor; L. G. Jarvis, Montreal; T. H. Smith.

### TORONTO EXHIBITION JUDGES.

Judges chosen for the Canadian National Exhibition, Toronto, are as follows:

**CATTLE.**—Shorthorns, A. T. Gordon, Inverness, Scotland; Herefords, R. J. Mackie, Oshawa; Aberdeens and Galloways, Prof. Arkell, Ste. Anne de Bellevue; Ayrshires, A. Cairns, Byron; Jerseys, C. T. Graves, Maitland, Mo.; Holsteins, H. A. Moyer, Syracuse, N.Y.

**SHEEP.**—Cotswolds, T. Hardy Shore, Glanworth; Leicesters, Robt. Garbutt, Belleville; Shropshires and Oxford Downs, yet to be appointed; Southdowns, J. C. Duncan, Lewiston, N.Y.; Dorset Horns, John Campbell, Woodville; Lincolns, John Gardhouse, Highfield.

**SWINE.**—Berkshires, S. J. Lyons, Norval; Yorkshires, R. J. Garbutt, Belleville; Tamworths, J. C. Nichol, Hubrey; O. D. B., R. J. Garbutt; bacon hogs, yet to be appointed.

### IMPORTED STOCK IN QUARANTINE.

Following is a list of animals in quarantine at Pointe Levis, Quebec, for August, up to the 15th:

For Robt. Miller, Stouffville, Ont., 2 bulls, 3 heifers, Shorthorns. W. G. Cavan, Toronto, 3 bulls, 21 heifers, Jerseys (from Island of Jersey). Also 172 sheep of seven different breeds, and 40 hogs of three different breeds, namely, Berkshire, Tamworth and Large Black.

### WESTERN RAILROAD FACILITIES IMPROVED.

Mr. George Mountain, chief engineer of the Railway Commission, returned from a six weeks' tour of the railways in the Canadian West, reports that conditions in respect to roadbeds, rolling stock, etc., have greatly improved during the few months, and transportation facilities this coming fall and winter will be much better than last year. The C. N. R. lines, especially, were found to be much better than he expected, owing to the large amount of work on the roadbeds, etc., done this summer. All the C. N. R. lines are now in fairly good condition, and are perfectly safe for traffic of all kinds. Large additions have also been made to the rolling stock, and the terminal facilities have been improved. The Railway Commission has now approved all the plans of the G. T. P., from Winnipeg right through to Fort George, in the Rocky Mountains.

### DECREASE IN EXPORTS TO GREAT BRITAIN.

The revised figures for Canada's foreign trade for the twelve months ending June last, as compared with the fiscal year 1905-06, has been issued by the Department of Trade and Commerce. For the twelve months the imports and exports totalled \$612,652,107, an increase of \$65,723,069. Total imports were \$354,430,433, an increase of \$64,138,025. Exports totalled \$258,171,674, a gain of only \$1,585,044. Imports from Great Britain increased \$19,891,161, while the exports declined \$5,193,179. Imports from the United States amounted to \$215,739,701, a gain of \$39,877,630; exports to the United States for the twelve months were \$104,260,494, a gain of \$6,453,766 over 1905-06. Total imports from Great Britain for the twelve months were \$89,067,350, and total exports \$127,901,688.

### GOING TO OGDENSBURG SHOW?

The thriving town of Ogdensburg, N.Y., just opposite Prescott, Ont., easy of access to Canadian farmers and stockmen, announces elsewhere in this issue of "The Farmer's Advocate" a big fair and horse show, Sept. 24-27. Arrangements have been made with the customs authorities for free admission of live stock and other exhibits. Look up the advt., and write Secretary Louis C. Nash for a prize-list.



### HOW HE SAVED HIS HORSE.

(Drawn for "The Farmer's Advocate" by James L. Frise.)

First Farmer—"Yes, sir, he's the best horse I have on the farm. Thought I was going to lose him last winter, but 'The Farmer's Advocate' set him up all right."

Second Farmer—"How was that?"

First Farmer—"Why, I just wrote about him to the Veterinary Department. I consider that paper just saved me \$150.00. No farmer should be without it."

This conversation is no fiction. Over and over again letters telling us practically the same thing have been received at our office. There is no better receipt for saving and making money than a subscription to "The Farmer's Advocate." Have you not some neighbor who may not be taking the paper? Do him a good turn by inducing him to subscribe.

### HORSEMAN UNHORSED.

Editor "The Farmer's Advocate":

Your correspondent, "Horseman," from Huron County, is still after the Clydesdale amendment passed last May at a called meeting, and which went into force on July 1st, and my only answer necessary is to say that the Canadian contingent in Scotland during July was able to convince the Clydesdale Council that our amendment was a reasonable one, and with the result that our wishes were met by numbering the fillies at once. Hope "Horseman" won't try on the prophetic so much in his future correspondence.

Ontario Co., Ont.

WM. SMITH.

A Western Ontario village dealer was recently fined for selling clover seed containing fowl weed seeds, under the Dominion Seed Control Act.

### HUNTINGDON, QUE., NOTES.

Hot, sunny, rainless days, with dewless nights, accompanied by warm winds, about describes the weather conditions since last writing. This has resulted in drying up the pastures, checking the growth of after-grass, prematurely ripening the grain, wilting the corn and root crops, drying up streams and wells, causing much inconvenience in watering stock, and lessening the milk flow very materially. This is the tale of woes that I have to record this month, quite different from the optimistic strain in which I usually write, but such are the conditions here at present, conditions that have not been experienced here for many years; and to add to this, the grasshopper plague has also been added, but is sectional, as in some localities there are very few, and in others they are eating up not only the grass and green oats, but garden stuff as well. If my memory serves me right, it is nearly thirty years since we had a similar grasshopper plague. Many farmers are cutting the oats very green to save them from their ravages.

It is now generally conceded that the hay was little more than half a crop, but of good quality, and, as a rule, well saved. There were occasional fields that became overripe before the mower got to them, which would lessen the feeding value of the product.

Harvest is well under way, and much of the grain is being cut on the green side, which will add to the feeding value of the straw. Oats were the most promising crop, and many fine fields were noticed, but, with the premature ripening, they are not filling, but withering up, and I think I am safe in estimating that the yield will not be as large as last season, or not over a three-quarter crop. Barley is about the same, although filling better than the oats, as it was further ahead before the hot weather struck us. Wheat is also not filling as well as if the weather had been more favorable. Corn has made a wonderful growth during the past three weeks; fields that were replanted and promised little a month ago, look now as if a fair crop will be realized, only somewhat immature, unless very favorable conditions exist all through September. The early-planted corn is likely to give big returns for silage, only will be a little later than usual in developing. These days, with the ground dry as ashes, and hot winds, even the tropical corn plant looks somewhat wilted. Potatoes are prematurely ripening, and what gave promise of being a good crop of tubers a month ago looks disappointing, as while the tubers are numerous, they are small, but clean and free from scab and blight. Roots are almost at a standstill, but this is the one crop that grows in September, and has time to redeem some of what has been lost, if we soon get plenty of rain. But it is the pastures that have the appearance of barrenness, and in some cases one wonders where the cows get a living. Most of the dairymen are now feeding some soiling crop or concentrated feed, but the latter are all so high in price that it is almost prohibitive to feed some of them; with bran at \$22 and moulie at \$28 per ton, there is not much in dairying at present prices of butter and cheese. Those who have a good supply of green oats or millet or corn

to feed will be able to make milk more cheaply than if heavy feeds of concentrated foods are given. The milk flow is down to about one-third of other years at this time. This is the time we usually turn the cows into the second crop of clover, but, alas, we have none this year, and how we will miss it! Those dairymen who are producing milk for the city trade have difficulty in filling their contracts at present, and we have not come to the worst yet, as September and October are the months when milk is hardest to secure in the city. The Milk-shippers' Association have a meeting in Montreal on September 2nd, to discuss prices of milk for the winter months, and it is a foregone conclusion that it will not be sold for less than 20 cents per gallon, and possibly 22 cents, delivered in the city. With hay at from \$15 to \$20 per ton, and grains at present prices (and they will likely go higher, rather than lower, as the tendency in price is upward), this will not give the shippers any too much profit.

This has been a splendid season to put the "Dry-farming" theory, as it is called, into practice—the method of farming as carried on by Prof. Campbell, of Lincoln, Nebraska, who is recognized as the father of this method of farming. It means successful farming, with a minimum of moisture, but can only be worked out in cultivated crops, and is practiced on many Canadian farms to-day. It is owing to this system of holding the moisture in the soil, by frequent cultivation, that we have such fine crops of corn this season. Commenting on "Dry Farming," the Farm and Ranch Review strikes the nail on the head when it says: "Dry Farming" means studying the underlying principles of plant growth, and applying the most up-to-date methods in every-day farm practice. To conserve moisture requires, first, that the soil be in such a condition as to absorb the maximum of rainfall, and this requires special preparation. Second, that methods of cultivation and crop rotation be adopted that only allow the smallest possible amount of loss by evapora-

tion. It naturally follows that weeds are destroyed and the soil left in the best possible state of tilth, consequently much greater yields are the result of this triple beneficial combination.

Better tillage means fewer weeds and more plant food liberated, in addition to the conservation of moisture. Fewer weeds to rob the land of food and moisture insures heavier grain harvests, so that the farmer who intelligently follows this system of conserving moisture, in addition enriches and cleans his farm without extra cost.

W. F. S.

### RESULTS OF EXPERIMENTS WITH AUTUMN-SOWN CROPS.

The area used for sowing wheat and other autumn crops was somewhat greater throughout Ontario in the fall of 1906 than in that of 1905. At the Ontario Agricultural College this year winter wheat and winter rye have produced large yields of grain which is above the average in quality, but the winter barley and hairy vetches have given results somewhat lower than those of 1906.

Generally speaking, white wheats, as compared with red wheats, yield more grain per acre, possess stronger straw, weigh a little less per measured bushel, are slightly softer in grain, produce a more popular pastry flour, and furnish a somewhat weaker flour for bread production.

Of the white wheats, Dawson's Golden Chaff, and other very similar varieties, such as Abundance, American Banner, Beardless, Rural New Yorker No. 6, American Wonder, Superlative, Fortyfold, Prizetaker and Extra Early Windsor; and of the red wheats, Imperial Amber, Paramount and Crimean Red, have produced the highest yields of grain per acre in the College experiments. In the following characteristics, the varieties mentioned below are very prominent: Stiffness of straw, Dawson's Golden Chaff, Prosperity, Economy and Early Ontario; hardness of grain, Buda Pesth, No. 5 Red, Crimean Red, Banatka, Tasmania Red and Geneva; weight of grain, Northwester, Auburn and Geneva; and milling quality of grain, Tasmania Red, Rudy, Onigara, Crimean Red, Yaroslaf, Turkey Red, Early Genesee Giant, Banatka, Northwester, Geneva and Imperial Amber.

We are endeavoring to improve some of the best varieties of winter wheat by means of systematic selection and by cross-fertilization. Each of eight different selected strains of Dawson's Golden Chaff wheat gave a yield of over 70 bushels of grain per acre in 1907. Some of the most promising hybrids, which are constant in type this year, are those produced by crossing the Dawson's Golden Chaff with the Bulgarian and with the Turkey Red. The object in crossing is to originate new kinds which will combine the good qualities and eliminate the undesirable features of the parent varieties.

The results of many tests conducted at the College indicate the importance of sowing with a grain drill, large, plump, sound, well-matured seed wheat at the rate of about a bushel and a half per acre on well-prepared clover sod, and earlier, if possible, than the 10th of September. Smutted wheat should be immersed for twenty minutes in a solution of one pint of formalin and forty-two gallons of water.

In the co-operative experiments conducted throughout Ontario in 1907, under the direction of the Experimental Union, the average yields of grain per acre were as follows: Winter Wheat—Imperial Amber, 22.2 bushels; Abundance, 21.7 bushels; and Michigan Amber, 20.3 bushels. And of Winter Rye—Mammoth, 26.4; and Common, 21.4 bushels.

#### DISTRIBUTION OF MATERIAL FOR EXPERIMENTS.

As long as the supply lasts, material will be distributed free of charge in the order in which the applications are received from Ontario farmers wishing to experiment, and to report the results of any one of the following tests: (1) Hairy Vetches and Winter Rye as fodder crops; (2) three varieties of Winter Wheat; (3) Five Fertilizers with Winter Wheat; (4) Autumn and Spring applications of Nitrate of Soda and Common Salt on Winter Wheat; and (5) two varieties of Winter Rye. The size of each plot is to be one rod wide by two rods long. Material for numbers 3 and 4 will be sent by express, and that for the others by mail.

C. A. ZAVITZ.

O. A. C., Guelph, Ont.

### THE INTERCOLONIAL RAILROAD.

During July, the earnings of the Intercolonial, Canada's leading Government railway, were the largest in the history of the road. In this connection, it is pertinent to note that at a recent meeting of the Maritime Board of Trade, held in St. John, N. B., a resolution was unanimously adopted favoring the taking over of branch lines by the Intercolonial. This tribute to the efficiency of the road is a phase of Government ownership of which but little is ever heard west of Montreal.

Every farmer in Canada needs "The Farmer's Advocate."

### PRINCE EDWARD COUNTY, ONT.

Owing to unfavorable weather conditions, a late, cold spring and a dry summer, Prince Edward County, with a considerable proportion of poor land, is probably in as bad a shape as any section in Ontario. There is in the northern portions of the county far from enough feed to winter the stock, even though it is sold off closely, which the people are doing, while the rest of the county will hardly have enough surplus to make up the shortage. And if we do not get rain soon, even the more favored parts will be cut short on the corn crop, which, if rains should come, will make a great difference in the amount of fodder, as we grow considerable sweet corn for canning in this county, and have the stalks for feed.

As to the rest of the county, the most of it has nearly, if not quite, an average crop. Of course, hay was light all over, and was barely half of what was cut last year.

Barley is rather short, and in some cases poor, but is fair in general. Oats, one of our most important crops, will not be up to the promise of a few weeks ago, as we have been visited with what is termed the blight, which is pretty general throughout Ontario, probably caused by the frosts we had the last of June, followed by so much cold weather. We are again able to grow peas in this county without loss from the weevil. Quite a large acreage was sown, but the crop is not as popular as it once was. Peas grown for canning green have been a poor crop, but beans have been fair. Just at present the outlook for tomatoes and corn is fair, but rain is needed. Our canning industry is growing by leaps and bounds; three new factories are in the course of erection, and will be in shape to handle tomatoes this year.

Fruit is, on the whole, a short crop, with the exception of apples, pears, cherries, and some kinds of plums, which will be fairly well loaded if they do not drop off. Apples are being sold quite freely at \$1.25 per barrel. One notable feature in the pear crop is the absence of scab on the Flemish Beauty variety, this disease having been a destroyer of them other years. Grapes, of which few are grown, are setting very heavily for fruit, and promise well.

Our cheese factories are busy, and most of them report fairly good receipts of milk up till lately, but they have not been as high as they are most years, owing to the poor start the pasture got in the spring and the unfavorable weather since. There is not a large number of hogs in the county, and the high price of millfeed makes the profits small. Therefore, there is not likely to be many grown this fall and winter.

A. S. W.

### ONTARIO CROPS LIGHT.

Farm crops in Ontario this year will average from one-half to two-thirds of a full yield, says T. G. Raynor, of the Seed Branch, Ottawa, who has been traveling over the Province inspecting plots of improved seed grown by members of the Canadian Seed-growers' Association. Hay was scarcely over half a crop on the average, although in some cases fine fields of new timothy meadow were to be seen, and in the Counties of Grey and Simcoe some good fields of clover were found. In the latter county, alsike clover has threshed out 8 bushels of seed per acre. Fortunately, the hay crop has been quite generally saved in prime condition. Of the grain crops, barley and peas are the best. The acreage of peas has increased, and no reports of weevil have been heard. Oats have suffered from blight all over the Province, but in some places worse than in others. Mr. Raynor inclines to the opinion that the cold, backward spring weakened the plants, and the fungus (*Fusicladium destruens*) made unusual headway against the weakened plants. The early July frost seemed to further lessen the vitality and vigor of the crop, and it is found that the crop is turning out poorest on low, flat land. Corn and root crops are promising fairly well for the most part, and, with a favorable autumn, should yield well. The effects of underdrainage and good farm practice are shown to excellent advantage this season, as is usually the case in a dry year.

### JUDGES AT DOMINION EXHIBITION, SHERBROOKE, QUE.

HORSES.—Thoroughbred, Coach and Carriage, Hackneys, Hunters, Saddle, Cobs and Ponies: Col. A. F. Ashmead, Dr. West and Dr. Charles McEchran. Standard-bred and Roadsters: G. Milton Hatch, E. D. Harpin, and E. P. Stevens. French Canadians: Robert Ness, Howick, Que. Clydesdales and Shires, Percherons, Normans, Belgians and Drafts, and General Purpose: W. H. Gibson, Beaconsfield, Que.

CATTLE.—Shorthorns: W. S. Robins, Horace, Indiana. Herefords: R. J. Mackie, Oshawa. Aberdeen-Angus, Dutch Belted, Galloways and Devons: Duncan Anderson, Orillia. Holsteins: R. S. Stevenson, Ancaster. Ayrshires and Brown Swiss: D. Drummond, Jas. Boden, and Jas. Bryson. Guernseys and Jerseys: H. G. Clark, Norval. Canadians: Louis Lavallee. Grades (beef, dairy) and Fat Steers: Jas. Lemoine, Ed. Nixon, and C. A. Jenkins.

SHEEP.—Pure-breds, Grades and Crosses: J. M. Gardhouse and John Campbell.

SWINE.—Pure-breds and Export Bacon Hogs—Sweepstakes: R. J. Garbutt and Arsene Denis.

Judging Competition for Live Stock.—Duncan Anderson and D. Drummond.

### THE PASTEURIZATION OF MILK.

The pasteurization of milk for children, now quite extensively practiced in order to destroy the injurious germs which it may contain, can be satisfactorily accomplished with very simple apparatus, according to the Bureau of Animal Industry, United States Department of Agriculture, Circular No. 1 (revised). The vessel containing the milk, which may be the bottle from which it is to be used, or any other suitable vessel, is placed inside of a larger vessel of metal which contains water. If the inside vessel be a bottle, it is plugged with absorbent cotton, or, in its absence, other clean cotton will do. A small fruit-jar, loosely covered, may be used instead of a bottle. The requirements are simply that the interior vessel shall be raised about half an inch above the bottom of the other, and that the water shall reach nearly or quite as high as the milk. The apparatus is then heated on a range or stove until the water reaches a temperature of 155 degrees Fahrenheit, when it is removed from the heat and kept tightly covered for half an hour. The milk is rapidly cooled without removing it from its containers, and kept in a cool place. It may be used at any time within twenty-four hours. A temperature of 150 degrees, maintained for half an hour, is sufficient to destroy any germs likely to be present in the milk in cold weather, or when it is known that the milk reaches the consumer soon after milking, and it is generally safe to adopt this limit. It is found in practice that raising the temperature to 155 degrees, and then allowing the milk to stand in the heated water for half an hour, insures the proper temperature for the required time. If the temperature is raised above 155 degrees, the taste and quality of the milk will be affected.

Inasmuch as the milk furnished to consumers in large cities in summer contains at the time of delivery an immense number of miscellaneous bacteria, this procedure may not fully meet the requirements during hot weather, not only because such milk will not remain sweet for twenty-four hours unless kept in a good refrigerator, but also because the bacteria not destroyed by the heating may at times produce digestive disturbances in the very young. Under such circumstances, it is best to keep the bottles in the water until it boils, or to use one of the many steamers now on the market. After the bottles have been kept at the boiling point for three to five minutes (or longer, if they are large), they should be cooled as promptly as possible, and kept in a refrigerator until used.

A simple plan is to take a tin pail and invert a perforated tin pie-plate in the bottom, or have made for it a removable false bottom, perforated with holes, and having legs half an inch high, to allow circulation of the water. The vessels containing the milk are set on this false bottom, and sufficient water is put into the pail to reach the highest level of the surface of the milk. A hole may be punched in the cover of the pail, a cork inserted, and a chemical thermometer put through the cork, so that the bulb dips into the water. The temperature can thus be watched without removing the cover. If preferred, an ordinary dairy thermometer may be used, and the temperature read from time to time by removing the lid. This is very easily arranged, and is just as satisfactory as the patented apparatus sold for the same purpose.

### JUDGES AT OTTAWA EXHIBITION.

HORSES.—Light Breeds: F. C. Greenside, New York City. Heavy Drafts: R. B. Ogilvie, Chicago, Ill.; E. W. Clark, Ottawa. French Canadian: Louis Lavallee, St. Guillaume, Que.

CATTLE.—Shorthorns, Galloways, Herefords, Polled Angus, Grade Cattle for Beef Purposes: T. Russell, Exeter, Ont. Ayrshires and Grade Cattle for Dairy Purposes: W. F. Stephen, Huntingdon, Que. Jerseys and Guernseys: R. Reid, Berlin, Ont. Holsteins: B. Mallory, Belleville, Ont. French Canadian, Louis Lavallee, St. Guillaume, Que. Fat Cattle: John Terrace, Ottawa.

SHEEP.—D. G. Hanmer, Burford, Ont.

SWINE.—Berkshire, Yorkshire, Chester White and Tamworth: T. A. Cox, Brantford, Ont. Export Bacon Hogs: George Gray, Hull, and T. A. Cox.

### PREPARE FOR SYRUPMAKING.

With fruit scarce and high in price, there will be a greater demand than ever next season for maple syrup. The plant should be secured and all necessary preparations for the camp made during autumn. Drop a card now, mentioning "The Farmer's Advocate," to the Grimm Mfg. Co., 58 Wellington St., Montreal, whose advt. appears elsewhere, asking for their useful free literature.

During the present year a number of prosecutions have been made by officers of the Seed Branch, Department of Agriculture, Ottawa, for infringements of the Seed Control Act. The list of prosecutions included one firm of Toronto Seedsmen.

Several Western Ontario cheese-factory patrons have lately been fined heavily for milk adulteration.

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## MARKETS.

### TORONTO.

#### LIVE STOCK.

Receipts of cattle at the Junction and City markets last week were liberal, while other classes of live stock were moderate to light. There were, all told, 264 carloads, composed of 4,671 cattle, 2,635 hogs, 3,223 sheep and lambs, 432 calves, and 1 horse. The quality of cattle generally was not good, the bulk of them being unfinished. Trade fair for best grades, but slow for common grades. Prices were 15c. to 25c. per cwt. lower for exporters, while the butchers' remained steady, especially for the best.

On Monday, August 26th, receipts of cattle at the Junction amounted to 98 carloads, comprising 2,103 head. Trade was brisk for good quality. Exporters, \$5 to \$5.35; bulls, \$5 to \$5.25; some light common exporters, \$4.75 to \$5; picked butchers', \$4.75 to \$5.10; loads of good, \$4.60 to \$4.90; medium, \$4.25 to \$4.50; common, \$3.25 to \$3.85. Sheep and lambs as quoted below. Hogs, selects, \$6.50; lights and fats, \$6.25.

Exporters.—Best loads sold last week from \$5 to \$5.25, with two or three lots at 10c. to 15c. per cwt. more. Bulls sold at \$3.75 to \$4.50.

Butchers'.—Best loads of butchers' sold at \$4.50 to \$4.75, with two or three picked lots at \$4.80 to \$4.90; medium butchers', \$4 to \$4.30; common, \$3.50 to \$3.80; cows, \$2.50 to \$3.75; canners, \$1 to \$2.25 per cwt.

Stockers and Feeders.—Feed reported as being scarce, with pastures drying up, caused this branch of the trade to be very dull. Few were offered, and not many in demand, with prices practically unchanged. Feeders, 800 to 900 lbs. each, are quoted at \$3.25 to \$3.75; stockers, 500 to 700 lbs., at \$2.30 to \$3 per cwt.

Milkers and Springers.—Only the very best quality cows are being sought after. Prices ranged from \$25 to \$55 each, the bulk of best quality selling from \$40 to \$50 each.

Veal Calves.—The market for good-quality calves is still stronger. Prices ranged from \$3 to \$6.25 per cwt., with the bulk selling from \$5 to \$6 per cwt.

Sheep and Lambs.—The run was moderate; prices firm. Export cves, \$4.50 to \$4.75; rams, \$3.50 to \$4 per cwt.; lambs, \$5.50 to \$6.50, with selected lots at \$6.60 per cwt.

Hogs.—Prices on Aug. 19th were quoted by H. P. Kennedy, at Junction, at \$6.65 and \$6.40; while at the City, Mr. Harris paid \$6.75 for selects, and \$6.50 for lights. Prices this week 25c. lower.

Horses.—Burns & Sheppard report a fair trade in some classes, while in other classes it is very slow. During last week about 175 horses changed hands at the Repository. Demand for drafters is not brisk. Several roadsters and carriage horses sold fairly well. Drafters, 1,400 to 1,700 lbs., sold at \$175 to \$250; those weighing 1,300 to 1,500 lbs., sold at \$165 to \$225; expressers, 1,250 to 1,350 lbs., at \$160 to \$210; carriage horses sold from \$175 to \$300; roadsters, \$150 to \$250, serviceable sound horses were cheap at \$50 to \$100.

#### BREADSTUFFS.

Wheat.—No. 2 white, 84c.; new wheat, outside points, 81c. to 82c.; 79c. f. o. b., for export. Manitoba wheat, No. 1 Northern, 95c.

Rye.—65c.

Peas.—No. 2, 75c.

Corn.—No. 2 yellow, 64c. to 65c., Toronto; No. 3 yellow, 63½c. to 64c.; No. 3, mixed, 62c.

Barley.—Nominal, No. 2, 52c. to 53c.; No. 3X, 51c. to 52c.

Oats.—No. 2 white, scarce, 44½c. to 45c., at outside points.

Flour.—Manitoba patents, \$4.60 to \$5, on track, at Toronto; Ontario, 90 per cent. patents, \$3.20 bid for export. Manitoba patent, special brands, \$5; seconds, \$4.60; strong bakers', \$4.30; new-wheat flour, \$3.10.

Bran.—\$17 to \$18, in bulk, outside.

Shorts.—\$20 to \$21 per ton, in bulk, outside.

#### COUNTRY PRODUCE.

Butter.—Receipts about equal to demand. Prices are quoted firmer. Creamery, pound rolls, 23c. to 25c.; dairy, pound rolls, 21c. to 22c.; creamery, boxes, 22c.; tubs, 19c. to 20c.; bakers' tub, 17c. to 18c.

Cheese.—Market firm; large, 12c.; twins, 12½c.

Eggs.—Market firm at 19c.

Honey.—Scarce; strained, in 60-lb. tins, 12c. per lb.; 10-lb. tins, 13c.

Beans.—Broken lots are worth \$1.50 to \$1.65 for hand-picked, in bags; car lots, hand-picked, \$1.80 to \$1.35; primes, \$1.20 to \$1.25, in bags.

Potatoes.—Farmers' loads sell at 60c. to 90c. per bushel, according to quality. Many samples are small and scabby.

Poultry.—M. P. Mallon, wholesale dealer, reports large receipts from various parts of Ontario, in crates, with prices easy at following quotations for live birds: Turkeys, 13c. per lb.; ducks, 10c.; chickens, 12c.; fowl, 10c. On the Farmers' market, chickens sell, by the basket, dressed, at 14c. to 17c. per lb., and ducks, 12c. to 14c.

Hay.—Baled, in car lots, on track, at Toronto, No. 1 timothy, new, \$12.50 to \$13.

Straw.—Baled, \$7.50 per ton, in car lots, at Toronto.

#### TORONTO FRUIT MARKET.

Receipts continue light, with prices high in comparison with other years. Canadian apples, 30c. to 40c. per basket; raspberries, 16c. per quart; red currants, \$1.10 to \$1.25 per basket; black currants, \$1.75 to \$2 per basket; huckleberries, \$1.50 to \$1.75 per basket; Canadian peaches, 75c. to \$1.25 per basket; Canadian plums, \$1 to \$1.50 per basket; Canadian pears, 60c. to 90c. per basket; Lawton berries, per quart, by the case, 12c. to 15c.; tomatoes, 25c. to 35c. per basket; pepper, green, basket, 25c. to 30c.; vegetable marrows, per doz., 60c.

#### TORONTO SEED MARKET.

Some farmers, in different sections of Ontario, have commenced to thresh alsike clover, which is said to be yielding fairly well per acre. A few lots have been sold to Toronto seedsmen. The Wm. Rennie Co. quote No. 1 alsike at \$7 to \$7.10; No. 2 alsike, \$6.40 to \$6.60 per bushel.

#### HIDES AND TALLOW.

Prices are quoted as follows by E. T. Carter & Co., 85 East Front St., Toronto: Inspected hides, No. 1 cows and steers, 9c.; inspected hides, No. 2 cows and steers, 8c.; country hides, 7c. to 7½c.; calf skins, No. 1, city, 12c.; calf skins, No. 1, country, 11c.; horse hides, No. 1, each, \$3 to \$3.25; horse hair, 30c.; tallow, 5½c. to 6c.; wool, unwashed, 12c. to 13c.; washed, 23c. to 24c.; rejections, 17c.; lamb skins, 40c. to 50c.

#### BUFFALO.

Cattle.—Prime steers, \$6.25 to \$6.75.

Veals.—\$5 to \$9.25.

Hogs.—Heavy, \$6.25 to \$6.60; mixed, \$6.50 to \$6.80; roughs, \$5 to \$6.50; dairies, \$6 to \$6.75.

Sheep and Lambs.—Lambs, \$5.50 to \$7.25; a few at \$7.50.

#### BRITISH CATTLE MARKET.

London.—Canadian cattle are quoted at 11½c. to 12½c. per lb.; refrigerator beef is 9c. to 10c. per lb.

Liverpool.—States steers, 12½c. to 13c.; Canadians, 11½c. to 12½c.; ranchers, 11½c.; native cows, 11½c.; bulls, 10c.

#### MONTREAL.

Live Stock.—The local cattle market continues about steady, at 5c. to 5½c. per lb. for choicest, fine being 4½c. to 5c.; good, 4½c.; medium, 4c. to 4½c., and common, 3c. to 4c. per lb., some being as low as 2½c. There is a good demand for sheep, for export, and sales are made at 3½c. to 4c. per lb., lambs selling at 6c. per lb., or about \$4 to \$6 each. The market for calves is firmer, owing to reduced supplies, and prices are \$3 to \$5 for poor, and \$6 to \$12 each for choice. Receipts of live hogs are growing lighter, but are still heavier than a year ago, and prices rule practically unchanged, at 7c. to 7½c. per lb. for choicest.

Horses.—A slight improvement in the demand for horses is observable, a number of enquiries having been received, recently, for good, strong horses for the lumber camps. This class of horses is fairly plentiful at the moment, so that there will be no difficulty in supplying all the demand which may develop. The only horses, apparently, which are not to be had in sufficient quantities at present are the choicest. Quotations are steady at: Heavy-draft, weighing 1,500 to 1,700 lbs., \$275 to \$350 each; light-draft, 1,400 to 1,500 lbs., \$250 to \$300 each; express horses, \$175 to \$250; common plugs, \$75 to \$100 each, and choice saddle and carriage horses, \$300 to \$500 each.

Dressed Hogs and Provisions.—Dressed hogs are in good supply, and steady, at 9½c. to 10c. per lb. Hams and bacon are selling freely at steady prices, being 10½c. to 12c. per lb. for green bacon, and 13c. to 15c. for smoked, hams being 14c. per lb. for those weighing 25 lbs. each and over, 14½c. to 15c. per lb. for those weighing 18 to 25 lbs., 15c. to 15½c. for 12- to 18-lb. hams, 16c. for 8- to 12-lb., and 17c. for smaller. Barrelled pork is steady at \$20.50 to \$24.50 per bbl. Lard shows no change at 10c. to 11c. per lb. for compound, and 12½c. to 15c. for pure.

Potatoes.—The market for new potatoes is firm, and purchases of full loads are being made by dealers at around 65c. per bag of 80 lbs., while grocers and others purchasing small lots pay perhaps 70c. to 75c., and make delivery themselves. Sales of 100-bag lots are being made, for out-of-town delivery, at 85c. per bag. The crop is very fine.

Eggs.—Deliveries of eggs have been on the light side of late, though there seems to be enough for the demand. Prices in the country have advanced, and dealers are now paying 16½c. east, and 17c. west, it is claimed. This stock is being turned over here at about 15c. to 15½c. for No. 2 eggs, 18½c. to 19c. for No. 1—the selects being out—and about 23c. for the selects. The outlook for the immediate future is steady.

Honey.—There seems to be very little going on in the market for honey. No new sales of importance have been heard of, but one merchant is holding a consignment at 12c., the quality being finest white clover, strained. He has managed to sell some small quantities at that figure, but no one will pay it for the larger lots, their idea being more like 10c. to 11c., and some declare they can buy in large lots at a shade less.

Butter.—The market for butter has eased off slightly since a week ago. Receipts from the country continue light, and supplies here are believed to be much smaller than they were a year ago. Shipments from port, for the week ending 18th, were only 3,751 packages, making 44,000 to date, against 216,000 a year ago. Sales of Township creameries have been made at 22½c., and even 22½c., but dealers think that 22c. is about the best now obtainable, the range being from 21½c. to 22c. Quebec makes are 21½c. to 21¾c. per lb., Ontarios being 21½c. to 21¾c., and dairies being almost unobtainable and about 19½c.

Cheese.—Quebec cheese is now quoted at about 11c. to 11½c.; Townships, 11½c. to 11¾c., and Ontarios, 11½c. to 11¾c.

Flour and Feed.—The market for flour and feed shows practically no change, as compared with a week ago. Flour is not in active demand, and the tone of the market is rather easy, owing to the new wheat being now near. Manitoba strong bakers' flour is steady at \$4.50 per bbl., in bags, and patents are \$5.10. One large miller has advanced the price of bran, and is now asking \$21 per ton, in bags, for it, and \$24 per ton for shorts, these figures being, however, \$1 per ton

more than the other miller is prepared to accept. Demand is good.

Grain.—There is practically nothing doing in the market, so far as local business is concerned. Oats are moving pretty freely, but only limited lots are being dealt in. Prices are 48c. to 48½c. per bushel, car lots, in store, export lots being 47½c. to 47¾c. Corn holds about steady at 62c. to 62½c. per bush. for No. 2, and a cent more for yellow.

Hay.—Only small lots of new hay are yet being received, but, ere long, the receipts should increase considerably. Demand is fair, and prices are firm. Dealers are paying, f. o. b., Montreal, in car lots, as follows: No. 1 timothy, \$16.50 to \$17 per ton; No. 2 timothy, \$15.50 to \$16 per ton, and clover mixture, \$14.50 to \$15.

Hides.—There have been advances in the market for hides during the week. Dealers are up a cent in their offers, at 7c., 8c. and 9c. per lb., respectively, for Nos. 3, 2 and 1, and they are selling to tanners at ¾c. advance. Calf skins are steady at 8c. for No. 2, and 10c. for No. 1 per lb., while lamb skins are 5c. higher, owing to increased quantity of wool, at 40c. and 45c., each. Horse hides are steady at \$1.75 each for No. 2, and \$2.25 for No. 1. Rough tallow is 1c. to 3½c., and rendered, 6c. to 6½c. per lb.

Wool.—Prices are apparently not very definite, though they are quite firm. Canada pulled lambs, brushed, are quoted at 29c. to 30c. per lb., unbrushed being about 28c. Canada fleece, tub washed, 24c. to 26c. per lb., and 16c. to 18c., in the grease. N-W. Merino wool is holding firm at 19c. to 20c. per lb.

#### CHEESE BOARD PRICES.

Woodstock, Ont., 11½c. bid, no sales. Stirling, Ont., 11 1-16c. Madoc, Ont., 11½c. to 11 3-16c. Kingston, Ont., 11½c. Victoriaville, Que., 10½c. Napanee, Ont., 11½c. Kemptville, Ont., 11½c. bid. Listowel, Ont., 11½c. Huntingdon, Que., white and colored cheese, 11 3-16c.; salted butter, 21½c. Ottawa, Ont., 11½c. to 11 3-16c. per pound. London, Ont., 11½c. Brockville, 11½c. bid. Alexandria, 11 5-16c., white and colored. Belleville, white at 11 7-16c. Picton, cool-cured sold at 11½c., and ordinary-cured at 11½c. Cornwall, white sold at 11 5-16c. and 11½c. St. Hyacinthe, Que., at 11 3-16c. Winchester, 11½c., colored and white. Vankleek Hill, colored and white, 11½c. Russell, white sold at 11 5-16c. Cowansville, Que., cheese, 446 boxes at 11½c., 229 boxes, 11 1-16c., and 127 boxes, 11 3-16c.

#### CHICAGO.

Cattle.—Common to prime steers, \$4.50 to \$7.35; cows, \$3 to \$5; heifers, \$2.75 to \$5.25; bulls, \$2.70 to \$4.90; calves, \$3 to \$7.50; stockers and feeders, \$2.25 to \$5.

Hogs.—Choice heavy shipping, \$5.30 to \$5.90; light butchers', \$5.95 to \$6.10; light, mixed, \$5.85 to \$6.05; choice, light, \$6.10 to \$6.20; packing, \$5.15 to \$5.75; pigs, \$5.50 to \$6.15.

Sheep and Lambs.—Sheep, \$3.80 to \$6.35; yearlings, \$5.75 to \$6.85; lambs, \$6 to \$7.50.

#### QUESTIONS AND ANSWERS.

##### Miscellaneous.

#### IS WATER-GLASS POISONOUS?

In a recent issue you recommended water-glass as a preservative for eggs. Enquiry for this article in this place elicited only the following from a druggist: "Water-glass used to be used years ago, but was no longer popular, as so many people had been poisoned by its use that it was regarded as dangerous." How much of this is true? I had recommended it to an acquaintance. She returned, after an unavailing search for the water-glass, with the remark quoted as her only reward. G. N. Toledo, Ohio.

Ans.—Water-glass (sodium silicate) is described as liquid glass, and not a "poison" in the ordinary sense, though an indigestible substance. It resembles honey in color and thickness. In using, to give the eggs a coating impervious to air, the American kind is diluted one part to seven of water, and the English, one to twelve.



Life, Literature  
and Education.

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

PEOPLE, BOOKS, AND DOINGS.

By a curious mistake, Sir Conan Doyle, whose engagement was recently announced, was given credit, in widely-copied press notices, for being a bachelor. It now appears that Sir Conan was married many years, his wife having died about a year ago. He has a son and a daughter, both grown-up.

Mrs. Isabel Ecclestone Mackay, of Woodstock, Ont., has won a prize of one hundred dollars for a historical poem, which will appear in the Christmas Globe.

During this summer, thirty-five of the American Rhodes Scholars at Oxford will return to the United States.

That William de Morgan should begin writing novels at the advanced age of sixty-seven, is surely a phenomenon in the literary world. He was born in 1840, and published his first book, "Joseph Vance," in 1906. Another novel from his pen, "Alice for Short," has been issued this year.

COUNTRY LIFE AND CULTURE.

ENVIRONMENT.

Nature, the dream that wraps us round,  
One comforting and saving whole,  
And as the clothes to the body of man,  
The mantle of the soul.

In connection with the human environment, the two most tremendous influences are day and night. How little we realize the wonderful personality of these two divisions of the twenty-four hours. To most of us, day is the time allotted for toil, and night for oblivion, one succeeding the other in a wearisome routine, which sadly represents so many lives.

In the city, the artificial conditions of life often compel many toilers to work all night and sleep the most of the day, thus reversing the order of things as nature intended. But, in the country places, whatever difficulties he may have to contend with, man is close to, and should be in perfect sympathy with, these two great gifts of Providence for the development of human happiness. In the country, day and night are not merely light and dark, but vastly more.

The day, even for the constant toiler, must have, and does have, its myriad influences and inspirations appealing to the soul. From the time of earliest cock-crow and the faint line of golden or ruddy light ushering in the dawn, until the homing cattle and the first early star whisper of departing day—the whole procession of time is one volume of exquisite poetry, appealing to the natural and sensitive soul.

Then, what of night, when in the dim, late twilight, or out under the stars of midnight or early dawn? If man be not sleeping the sleep of the weary, he can, like the patriarchs of old, witness and drink into his soul those vast spaces and their mystic

symbols of the origin, history and destiny of the race. This is an environment which is the very greatest of all, whose influence on the soul and whole character, while for the most part unconscious, is ever present to the country-dweller, and must, in the long run, have a tremendous effect on personality. This must be the reason why the greatest poets, the greatest discoverers and philosophers were reared in the country.

The city-dweller, in spite of all his so-called social advantages, by reason of his alienation from these great aspects of nature, as seen by hillside and moor, this close down-brooding of heaven and up-dreaming of earth, this whispering and moaning of winds and voice of waters, this eternal kiss of sun and air on brow and cheek—loses what not all the cloth of gold and fine linen of social life may give; that mystic tonic of soul and body, that immortal song which nature sings in the ears of her shepherds and plowboys.

We must first have the true man ere we can hope to produce the gentleman. And where should we find our true gentlemen and gentlewomen, if not in the country? And this large, this impressive, this eternal environment of day and night, in its everlasting influence, its appeal to what is best in the man and the woman, is the first essential in the development of human culture.

There can be no doubt that the importance and happiness of human life depends largely on how man makes use of these two divisions of the twenty-four hours.

We have long forgotten the old proverb, "Early to bed and early to rise, makes a man healthy, wealthy and wise." How far this is true, must be left to each man to judge for himself; but, on the whole, it is the truth. It is a fact that he who sleeps during the night is healthier than he who wastes his hours awake, and then endeavors to rest in the late morning. But this is no reason why the student should not sometimes burn the midnight oil. I have also known farmers to rise early and work late, getting little rest. This crowding too much into the day is as foolish as doing too little.

The day is not for labor alone, as the night is not only for sleep. Out of both humanity should set aside hours for recreation and self-improvement, just as the seventh day is set apart in the week, and the portion of the garden is set aside for flowers. Life was not intended to be all toil, any more than it was to be all tears. The sane arrangement of the day and night will determine much, if not all, in a human lifetime. The country home, where all is hurry and drive from dawn to dusk, and often long after, can never be a happy or attractive one; and into such a home no true culture can ever enter. That dignified poise of life, that quiet, consistent tone of responsibility which allots the daily duty, without slavery, is the ideal one; and it is quite possible to work hard on a farm and yet consecrate certain portions of the day and night to the poetry and dreams of existence. The social environment is one which must not be ignored in any community; and where more than in the country? He who owns a hundred acres of the soil of

any county or township should be one worthy of his ownership and responsibility. Is it not strange that a man who lives in a town, and toils behind a counter for a small salary, should be particular as to his person, his manner, his dress, his deportment and speech; and yet he who is a free owner of the land, a landlord in a small way, and independent of others for his living, should often be so careless in all of these really important matters? It is not insinuated here that a farmer should be a fop, and afraid of soiling his hands. On the other hand, of the two classes, even with his occasional lack of refinement, the countryman is the true man. But the pity is that, while he is the manlier by reason of his more natural environment and more independent position, the farmer should not more often acquire somewhat of the refinement which is so necessary to social ideals and happiness. Culture, in the country as well as in the town, must always presuppose dignity and deportment. A man does not need a university education to enable him to speak and act properly. He does not need the life of a metropolis to teach him how to behave at table or in a social gathering. There are a thousand and one little decencies and proprieties of life which can be acquired and maintained on the farm, as well as in the city, and without destroying any of that boasted democratic independence upon which so many rural dwellers pride themselves. This is a very delicate subject, but one, nevertheless, which needs to be well considered. We have had, on this continent, a wrong idea that mere carelessness as to how we dress, or eat, or perform our toilet, and who we consort with and what we do, read or think, is a sign of a democratic spirit, which ranks as a virtue among many people.

There was a dignity, a grave simplicity and a conservative pride about the ordinary country people of Scotland which is missing on this continent. This all went with a pride in race and an attachment to a locality, or a principle of life, which is lacking in the average American community. There is nothing so contemptible as vulgarity, and there is no vulgarity so repellent as that of the shoddy clothes, the cheap jewelry, and the ostentation of the moneyed class without culture.

It is not in outward show or mere vulgar display that society is improved, but in that simple and dignified environment which is real; where the manners are easy without being overbearing, where the whole household is in good taste, from the style of furniture to the pictures on the walls. The very food one eats may be, and should be, of the simplest. But the manner in which it is served, the refined breakfast or dinner table, the delicate service—all have a wonderful effect in their influence on character, as well as health. The rooms where one lives for a good portion of one's lifetime, should, in an age like this, be at least healthy, in good taste, and artistic. When, even in towns and cities, the soul is appalled by the vast amount of loud and vulgar wall papers and flashy carpets, the ugly, cheap and shoddy furniture, the ghostly sideboards, and

other venerated monstrosities, which are sold at outrageous prices, and make a home hideous, one can scarcely be amazed that so much of this is also to be found in the country.

Furniture was intended, originally, for use, and there was, in the old days, not so much of it; but what there was was solid and lasting. The overcrowding of bedrooms and dining-rooms and parlors with all sorts of things, simply because our neighbors do likewise, is a very foolish fashion to follow. Thank goodness, the cheap chromo has been banished with the old "God bless our home" motto which used to hang on so many walls; and the excruciating parlor organ has followed these, with the seed and hair wreaths enclosing coffin plates in glass cases, into that oblivion of all ephemeral and vulgar fashions.

How could one expect any taste, any culture to develop when such things existed. But even these were an improvement on the conditions when the weekly paper and the old-time almanac were the sole household representations of literature and humor. These influences were quite natural when the settlers lived in the backwoods, when anything was a solace or an adornment. But in an old-settled community, well to do, and in reach of large towns and cities, there can be no more excuse among the better classes of the community for the crudities and vulgarities of rural life. The environment of the prosperous country home should be, for many reasons, superior to that of the town. What a delight, what a pleasure to visit, even in imagination, the ideal country home. Leaving the close and crowded din and noise of the city, we travel by rail or carriage to some spot beloved of the fates, removed from the jar of trade and commerce. There are many such spots in Ontario, perchance on some inland hillside, or by a dreamy river-bank, where giant elms spread their umbrous branches over summer lands. Following the rural road, we come at last, by quaint vistas of wooded hillsides and pastured hollows, to some well-kept gateway, giving entrance to an overshadowed drive, leading by charming hedges and well-kept lawn and garden enclosure, to the precincts of a dignified and picturesque mansion, bearing on its outward front all the appearance of a comfortable and dignified home—the ideal cradle of the better-class men and women of the Canadian rural stock. It may be square and massive, with solid chimney-stacks, or it may show a quaint gable through its grove of surrounding trees and shrubberies. But its general air of dignity and reserve, facing on its trimmed lawn, proclaims it the residence of a man or woman who should hand down family traditions of honor, taste, culture and ambition worthy of any county history in Canada or the Old Land. We would expect that such a place and the lands it represents would have a name. There is a charm in those old-world names which have for centuries identified a certain family with certain lands. There are old associations, memories, connected with love, birth and death, even man's sadness, which will make hallowed a family fireside. Here, in a



precinct like this, man is not crowded so close to his fellows as to lose his domestic sanctity and reserve. Out on these hillsides, or river valleys, or lake shores, such homes are and can be places where the family ideal can take root and grow; where the old-time dream of self-rule and freedom, which made Britain so great, can, if ever again, be fostered and nourished. If we enter such a home, we will expect to see the interior like the outside, simple but dignified; and somewhere within an open fireside, where childhood might gather, where youth could dream, and old age recover older memories.

In such a house one might expect to find a few books and pictures of the old classic school, the former in a well-read row; for a few good books, representing the wit, wisdom and virtue of the kings of mankind are worth a thousand of the meretricious volumes which disgrace and degrade the present day. What delightful memories are his who can recall boyhood by such a hearth, in such a house, when the autumn or winter-night wind went roaring up the old chimney-flue, mingling with the creaking of great branches outside in the bleak gale, while in the candle or firelight he went voyaging, in delightful imagination, with the immortal Raleigh, or Captain Cook, or, perchance, dwelt in childhood's golden enchantment with the lonely Crusoe on his magic isle.

WILFRED CAMPBELL.

## The Quiet Hour.

### A CHAT ABOUT CHURCH-GOING.

And all the people came early in the morning to Him in the temple, for to hear him.—St. Luke xxi: 38.

"At Thy feet, O Christ, we lay  
Thine own gift of this new day:  
Doubt of what it holds in store  
Makes us crave Thine aid the more:  
Lest it prove a time of loss,  
Mark it, Saviour, with Thy Cross."

Don't you think that Bishop Thomson may be fully justified in his statement that one might safely write over hundreds of graves this epitaph: "He kept no Sunday!" He says that strong men are cut down in their prime, and the doctors give a dozen names for the cause of their untimely death—softening of the brain, paralysis, heart disease, nervous exhaustion—but, sifted to the bottom, the real fact is that the men kill themselves by not keeping Sunday—"business men, statesmen, lawyers, students are all getting in the habit of going out at a moment's warning, dropping dead as they stand, in a way that has never been known before."

It would be rather interesting to make an investigation of a thousand cases of sudden death in order to find out whether there was any plain connection between the breach of the Fourth Commandment and a weakened heart.

But I am not trying to give directions about the best way of building up a strong constitution—except by the way, as health of body is effected by a healthy condition of soul. I hardly think that many people would be induced to keep their Sunday holy, in the hope that their lives in this world might be lengthened thereby. But possibly many people are drifting almost imperceptibly into the lax observance of Sunday, which is now so prevalent, without intending to break God's law or fully considering the great loss they are sustaining by neglecting to obey His command.

Our common sense may rebel at the trivialities of the Jewish Sabbath, and we may feel amused at the strict rules which many Jews obey so rigidly to this day. I know Jews who will not light a match on the Sabbath, nor tear a scrap of paper, nor cut a piece of string on that day. I know hundreds of Jews who will not write a word on Saturday—unless the demand of business makes it necessary. But, because some people go to one extreme, is no reason why other people should rush to the opposite extreme and ignore the Fourth Commandment altogether.

God did not make man for the Sab-

bath—he is not to be bound hand and foot in order to make one day in seven stand out from the rest of the week. But "the Sabbath was made for man"—it is a direct loss to himself to neglect it. That might be reason enough for setting apart one day in seven as a rest-day—quite apart from religious motives—but let us take higher ground, as we should always do.

God has required of us one day in seven, as a token that all our days belong to Him, and should be consecrated to His service. It is the same with our money. We are required to pay tribute, not because only a tenth of our income belongs to God, but because it all belongs to Him, and we are only stewards, bound to lay it out to the best advantage, for His glory and the good of the world.

All our days should be spent for God, all our days should be holy-days, but experience should have convinced us that we cannot satisfactorily carry the Sunday spirit into the week days, unless we make a point of devoting at least one day more particularly to the service of

"I can read my Bible as well at home," is dying out. People are rather ashamed of such an evasion, when everyone knows that those who stay away from Divine service, without good and sufficient reason, very seldom read their Bibles at all.

But I think the root of this prevalent neglect of church-going is want of faith. If souls were not blind and deaf, there would be no room in our churches for the crowds that would flock there "early in the morning." If we have little faith, let us try to become like children again and make vivid use of our imagination. If we don't realize the living Presence of our Lord, let us try to "imagine" that He is there. Let us confess our sins, in real earnest, remembering that His ears are listening, that He is looking into our hearts to see if we really repent and really intend to fight against the old temptations during the coming week. Then let us drink in, with trembling gladness, His sweet and gracious words of absolution, addressed to all who truly repent and unfeignedly believe the glad tidings of forgiveness and sanctification. Let us sing our praises and thanks-

couraged to speak with confidence because the words are not theirs, but inspired by the Spirit of God. "It is not ye that speak," He says, "but the Spirit of My Father speaking in you."

The Spirit of God can reach a soul through any words, spoken by any person. Listen for His voice, and you will surely get the special message He intends for you, no matter how dull and uninteresting the sermon may appear to be. What a pity it would be if you went home as poor as you came, missing even the peace of Christ's own benediction on the kneeling congregation, went away "poor," when the treasury was wide open and you might have carried home rich jewels of pardon, strength, wisdom and peace, which would have transfigured every hour of the week. Our souls grow slowly, as our bodies do. Give them plenty of fresh air, good food, and the healthy exercise of loving acts of service, and they will grow stronger steadily, and develop a vigorous appetite for spiritual food. Then the bodies in which these healthy souls live will find their way to church "early in the morning," not only to "hear" Christ, but to receive Him in His wonderful sacrament, that He may abide in them and in their homes all the week, and they may abide in Him and in His House, while their bodies are busily attending to the ordinary work of everyday life.

When God speaks from Heaven, it is possible to hear the sound without perceiving the message, or knowing the source from whence it proceeds. When our Lord, a few days before His death, said: "Father, glorify Thy Name!" He heard the instant answer: "I have both glorified it, and will glorify it again." But, while some thought an angel had spoken, others, hearing the sound, said, carelessly, "it was only thunder."

So it is in our public worship of God. Some can only hear the voices of men and the sound of the organ and choir, while others are listening to prophets and apostles, to the harps and voices of angels, and to One whose voice is sweet and thrilling "as the sound of many waters."

Some find that their words of prayer and praise are too weak and careless to be heard a yard away, while others know that each word goes straight to the heart of Him who sits upon the Throne, blending not only with the angelic hymn of "HOLY, HOLY, HOLY," but with the wonderful intercession of our Great Elder Brother at the right hand of the Father.

Go to church with ears and eyes and hearts ready to drink in the love of the Infinite God that is waiting to fill you with strength and gladness, and you will never find the church dull and the service long and tedious. But remember that "practice makes perfect." If you fail over and over again to realize the living, quickening Presence of God in His own House, don't imagine that He is necessarily absent. Others can find Him there, and so can you. Go regularly, go prayerfully, go hopefully, and you will some day find the great promise true:

"If two of you shall agree on earth as touching anything that they shall ask, it shall be done for them of My Father which is in Heaven. For where two or three are gathered together in My Name, there am I in the midst of them."

"It is the house of prayer,  
Wherein Thy servants meet;  
And Thou, O LORD, art there  
Thy chosen flock to greet."

Why should we any longer sit at the feet of Christ "unknowing, blind, and unconsoling" when we need only put out a hand in faith to touch the hem of His garment and be healed of the sin within us, and gain new strength for our daily work and daily battle, from living union with the Life of the world?

And may I ask one favor? When you kneel at the feet of Christ, will you sometimes pray for me? I need your prayers, not only for myself, but for you. If this Quiet Hour is to be of any real value, it can only be because God may be willing to convey His message through it. Surely the responsibility rests on you as well as on me. If it is failing in its object, may that not be partly your fault, because you never ask God's blessing on the words I am sending out each week? If "two of you" agree in making it helpful, we have the promise that the prayer will be answered, how much grander then will be the re-



Autumn.

God. Those who deliberately cut themselves off from the public worship of God's House, for months at a time, need not be surprised if their faith grows weak and their spiritual sight grows dim. Perhaps they say, sadly: "I wish I had my childhood's faith back again!" and all the time they are letting their souls grow thin and weak for want of regular spiritual food, and for want of prayer, which is to the soul what fresh air is to the body.

Look at the text we began with. Do you think any visitor to our churches, in city or country, would be apt to say that "all" the people are gathered in the House of God "early in the morning" to hear Him?

How many, who get up early every other day, think it almost a virtue to be lazy—really lazy—on Sunday morning. They will go to church in the evening—if they feel like it—but Sunday is a day of rest, and going to church is "tiresome," and the preacher is "prosy," and they "don't feel any better for going." The old excuse that used to be made:

givings heartily, not wondering whether the congregation is admiring the music, but trusting that God will find it sincere enough to be worth accepting. Let us listen to the words of prophet and apostle with respect and earnest attention, remembering that they are messages sent to us by God's ambassadors. And, when the wonderful words of Divine simplicity which are recorded in the gospels, fall on our ears, let us drink them in eagerly, knowing that He who spake as no other man has ever spoken is addressing them directly to us.

As for the sermon—what if the preacher is "prosy!" he does not stand altogether on his own merits. Read the tenth chapter of St. Luke's gospel and you will find that not only apostles, but all ambassadors sent out by Christ, represent Him. Those who refuse to receive them are warned of certain punishment, because—as He says—"He that heareth you heareth Me, and he that despiseth Me despiseth Him that sent Me." The messengers sent by Christ are en-

suit if hundreds or even thousands "agree" in this petition. "Ye also helping together by prayer for us, that for the gift bestowed upon us by the means of many persons, thanks may be given by many on our behalf.—2 Cor. I.: 11. HOPE.

## About the House.

### SMALL ECONOMIES.

(Continued.)

#### Paper II.

Before passing on to to-day's subject, may I add an observation which I forgot last day, viz., that it "pays" to adopt one prevailing color in dress; the most becoming one, of course. By so doing you are almost sure to be invariably dressed in harmony; your ribbons, gloves, etc., all match, and may be worn with anything you possess in the sweet serenity that no one section of you is at drawn daggers with any other. To illustrate: Suppose you have a blue dress, also a red one—you must have hat, gloves, ribbons, etc., to match each. You can't wear blue gloves with a red dress, or vice versa, nor ribbons, nor hats; but if you choose all blue as your color, have, say, a navy cloth suit for general wear, a navy voile, panama, etc., for more dressy occasions (we are speaking now of fall and winter wear, for in summer white takes things in its own hands), you can make one pair of gloves, one hat, one belt, etc., do for both. Sometimes, of course, one gets tired, after two or three years' wear, of the one color; then it is wise to make the transition by as easy gradations as possible; that is, choose first some intermediate color that will not clash with the things already on hand, and which may yet lead up to some other which one may wish to adopt. For instance, if you are wearing blue you may switch off upon cadet gray, or green—green and blue are quite commonly worn together (in harmonizing shades, of course) nowadays—and by and by, when the blue things have been worn out, you will have the all-green which your heart desired.

And now to our topic for to-day.

#### CLEANING.

To begin with, it should be unnecessary to dwell long upon the advisability of very frequent brushing. No garment can be expected to look its best unless absolutely free from dust; and yet how many people there are who are contented to go out with a bit of a brush off at the last minute. How many more there are, too, who never seem to think that it is distinctly untidy, not to mention unsanitary, to hang dust-laden garments away, time after time, in closets or bedrooms, without so much as giving them a shake. Remember that to keep any article of wearing apparel, especially coats, skirts and undershirts, in good condition, it is absolutely necessary to shake and brush them, out of doors, after each wearing. If there is a balcony convenient to the bedroom this work is simplified; if not, it is always possible, in the country, to shake things out of a window, where the dust will be carried away so that it cannot settle on things in the house. Just here, children—and "the men" also, if necessary—should be taught to do this work for themselves. It is an injustice to leave it all for the mother.

But there are harder problems to deal with. Spots are sure to appear, sooner or later, and a dirt-spotted costume, no matter how carefully brushed otherwise, is never an attractive one. . . . If the material is white the treatment will depend somewhat on the stain. The following methods have been tabulated for convenience:

**Grass Stains.**—Remove by washing the spot in alcohol.

**Grease Spots.**—Cover with magnesia or French chalk, and let stand over night, then brush out. This method is also good for colored cottons and light silks.

**Scorch Stains.**—Wet the place, rub with soap or salt and lemon juice, and expose in bright sunshine several hours.

**Iron Rust.**—Soak with lemon juice and salt, and expose to bright sunshine as above; or sprinkle with salts of lemon, then pour boiling water through. As salts of lemon is a poisonous acid which will burn the cloth, the latter should be

rinsed through several waters at once, then boiled.

**Blood Stains.**—Soak first in clear cold water, wash out, then put in warm pearl-line suds. Let soak, wash out again, and finally put in cool suds and bring to a boil.

**Ink Stains.**—Soak in sour milk or buttermilk, washing out in clear cold water after each application. If the stain still remains after two or three days' soaking, proceed as above with salts of lemon.

**Mildew.**—Rub well with soap, then apply a paste of powdered chalk and water and let lie in the sun. Two or three applications may be required. Another method is to soak in a weak solution of chloride of lime several hours, then wash well in clear water, afterwards, as usual, boiling with soap and water.

Chloride of lime will remove many obstinate stains, but one must be careful in the use of it or it will burn holes in the material. To prepare it, dissolve 2 level tablespoons of chloride of lime in 1 pint hot water, strain through muslin, then add 1 gal. water. Soak the stains until they disappear, rinse well in clear

cupful of the liquid added to a boiler of water when washing will help to keep white clothes beautifully clear. It must not be used for colored things. Chloride of lime, as above, is also good for removing fruit or tea stains.

Benzine, gasoline, ether and turpentine are all used for removing spots from colored woollen or silk goods. As the first three are extremely volatile, they should not be used near lights or fires. To use them, moisten with the liquid a large ring around the grease spot, and rub with a clean rag towards the center. When it is reached saturate two pieces of blotting-paper with whatever spirit is used, place one beneath, the other above the spot, and press with a weight. Sometimes a circle is left about the place moistened, but this will usually yield to vigorous steaming over a kettle.

#### CLEANING WHOLE GARMENTS.

When garments are so much soiled as to require cleaning in entirety, they should, if possible, be dry-cleaned; that is, cleaned without water.

Thin white or light-colored waists, if

may be done with quite as great success at home, provided you have plenty of gasoline. It cannot be repeated too often, however, that gasoline must not be used in the same room with a fire or light, nor kept in any vessel near a stove or in the hot sunshine. Not only the gasoline itself, but the fumes which arise from it and mix with the air are extremely inflammable, hence carelessness may bring about a catastrophe. Even when washing garments, especially if silk, in it, care must be taken not to rub too violently, as the rubbing may generate enough heat to ignite the liquid. With proper care, however, there is no danger in using gasoline. We have personally done much cleaning with it, and with perfect success, and, knowing its properties, have no more fear in handling it than if it were so much water. But care must never be relaxed. If the gasoline is allowed to settle after being used for cleaning, the clear portion may be poured off the top and used again and again. It must, of course, be kept in tight vessels, as it evaporates very quickly. . . . For cleaning ribbons, silk gloves and veils, all that is necessary is to put them in a sealer, cover with gasoline, leave tightly closed for an hour or so, then shake and rinse out. Always hang in the open air to dry, and in the case of ribbons and veils, press out afterwards with a warm iron. There is no danger in using an iron when the articles are dry, for by that time the gasoline will have evaporated. White kid, chamois and suede gloves in light colors may also be cleaned in gasoline, and so given a much longer lease of life. . . . To renew black gloves, mix black ink and olive oil in equal proportions, paint the gloves with the mixture, using just as little of it as possible, and let dry. Another method for cleaning gloves, which has been recommended—we cannot speak from experience—is to spread them on a clean towel, then rub them well with a piece of flannel dipped first in skimmed milk, then rubbed on yellow soap; rinse the flannel often, and when all the dirt is removed pull the gloves into shape, without rinsing, and let dry on a clean dry towel.

Our next talk will be on dyeing. M.  
(To be continued.)



Winter.

water, then boil. Chloride of lime may also be used to transform faded muslin dresses into white ones. Use a tablespoonful to a quart of water. Dissolve thoroughly, strain, soak the muslin, then rinse well through several waters, and finally boil.

**Tar Stains.**—Rub with lard or turpentine, let stand some hours, then wash with soap and soft water.

**Blue stains,** made by household bluing, may be removed with alcohol.

**Paint.**—If fresh, remove with turpentine. If dry, mix a little ammonia with the turpentine (diluting it first, if the article is colored).

**Fruit, Tea and Coffee Stains.**—While fresh stretch over a bowl and pour boiling water through. If you cannot treat them when fresh, remove the stains with Javelle water, which may be procured at most drug stores (the recipe for making it has been given several times in "The Farmer's Advocate"). Take one part Javelle water and four of soft water; soak the stained article in this for several hours, then wash and rinse well. A

not too much soiled, may often be made look as good as new by rubbing well with a mixture of fine salt and corn-starch, leaving over night, and brushing out well next day. Occasionally the process will have to be repeated. But if much soiled gasoline is the best cleaning agent for these, as well as for any other articles of silk or wool, either white or colored. To clean with gasoline, proceed as follows: First mend the garment, and shake and brush it free from dust. Next remove any very conspicuous spots with gasoline and blotting-paper as above, then prepare for the final cleaning. Have three covered vessels half filled with gasoline. Put the garment into the first and let stand half an hour, then rinse and squeeze out, and drop into the second vessel, transferring the garment, after another half hour, to the third. Finally, shake out and hang on a line in the open air to dry, afterwards pressing with a warm iron. This is the method adopted by professional cleaners, who send you back your skirts, etc., looking as good as new, but the work

## With the Flowers.

### THE COLEUS.

To have success with the coleus, give it plenty of drainage material, a light, sandy loam, and plenty of water, and keep it in a warm sunny window, where it will have plenty of room to develop, pinching back the foliage from time to time to induce a bushy growth. Keep the temperature of the room as uniform as possible, as sudden changes or blasts of cold air blowing across the foliage is likely to do damage; when necessary to open doors or windows for ventilating, remove the plant to another room and keep it there until the air has been reheated. Do not sprinkle the foliage unless it has become very dusty, and do not fail to remove flower buds as soon as they appear; the beauty of this plant, you know, depends wholly on its foliage.

The coleus is very easy to propagate; a slip cut off and stuck in the soil beside the plant seldom fails to grow. Another method is to place the ends of the slips in a glass vessel of lukewarm water and keep it in a warm place. The large leaves are likely to drop off, but this will do no harm, as fresh sprouts will start from the axils. Pot as soon as possible after growth has started.

If you wish a great variety you may find it wise to buy a package of mixed seed. Plant in flats (shallow boxes) and keep in a warm, slightly-shaded situation until the first true leaves appear, then transplant, if necessary, and when well rooted move to a sunny window and treat as above.

### THE GYNURA.

The gynura, or velvet plant, is a species of coleus much prized by some on account of its wonderfully iridescent foliage, which greatly resembles purple velvet shot with varying tints. It requires a soil composed of half leaf-mould and equal parts of sand and garden loam, and should be kept in a temperature of

70 degrees. Unlike the coleus, the gaura should never be placed in direct sunlight, nor should it ever be planted out in the garden in summer; in fact, it does best if kept in the house all the time. Give it plenty of water, but do not sprinkle the leaves or they may turn brown in spots.

#### THE FARFUGIUM.

Another plant grown for the sake of its foliage is the farfugium, or leopard-plant—so called from the curious spotting of its large waxy leaves, creamy white upon a green ground. Provide good drainage, give the plants a loose, rich loam and plenty of water, and keep away from direct sunshine and in a rather cool temperature, if possible from 50 to 55 degrees. When watering this or any other plant, remember that it is best to take the chill off the water, making it as nearly as possible of the temperature of the room before giving it to the plants.

### Current Events.

Thousands of revolutionists are said to be causing ferment in China.

A very rich gold-find is said to have been made at Night Hawk Lake, near Cobalt.

The New Zealand Upper House has decided not to admit women among its members.

The C. P. R. will build a new steamer, capable of carrying 1,500 passengers, to replace the Victoria on the Pacific-coast service.

Robert A. Pinkerton, head of the Pinkerton Detective Agency, died recently on board the steamer Bremen, while on his way to Europe.

The Pure Food Bill, introduced by John Burns, and providing stringent regulations for the inspection of foods, has been adopted by the British House of Commons.

Several thousand men have been killed during the recent attacks on Casablanca. The town is now under control of the French and Spanish, but further trouble is expected, as the tribesmen are not yet vanquished.

The Transvaal Government, at the instance of General Botha, has decided to purchase the Cullinane diamond, valued at \$1,000,000, as a present for King Edward. The decision is meeting with much criticism, as it is thought that the finances of the colony do not warrant the expenditure, and King Edward is in a quandary whether to accept or reject the gift.

The Peace Conference at The Hague held its fourth plenary session, which has been termed the "Funeral of the limitation-of-arms question," on August 17th. In regard to this subject, nothing has been done save the passing of a motion brought in by Sir Edward Fry, the leader of the British delegation, which recommends an earnest study of its possibilities to the nations. Before the closing of the Conference, some time between Sept. 10 and Sept. 17, the fisheries trouble in Newfoundland will be made a subject of discussion.

The new owner of a Scotch shooting reserve had piloted a number of entirely harmless gunners about the ground.

"Look here, Mac," he said to the keeper, as they came back. "These gentlemen 'ave to return to town end of the week. Would it do the birds any 'arm to drive the ground again day after to-morrow?"

"Mon," replied the Scot, "ye might drive it the morn's morn. Flecin' about canna hurt them."

## The Ingle Nook.

### SOME RAMBLING NOTES ON OTTAWA.

If you have ever made an extended sojourn in Ottawa, you have probably seen Gatineau Point.

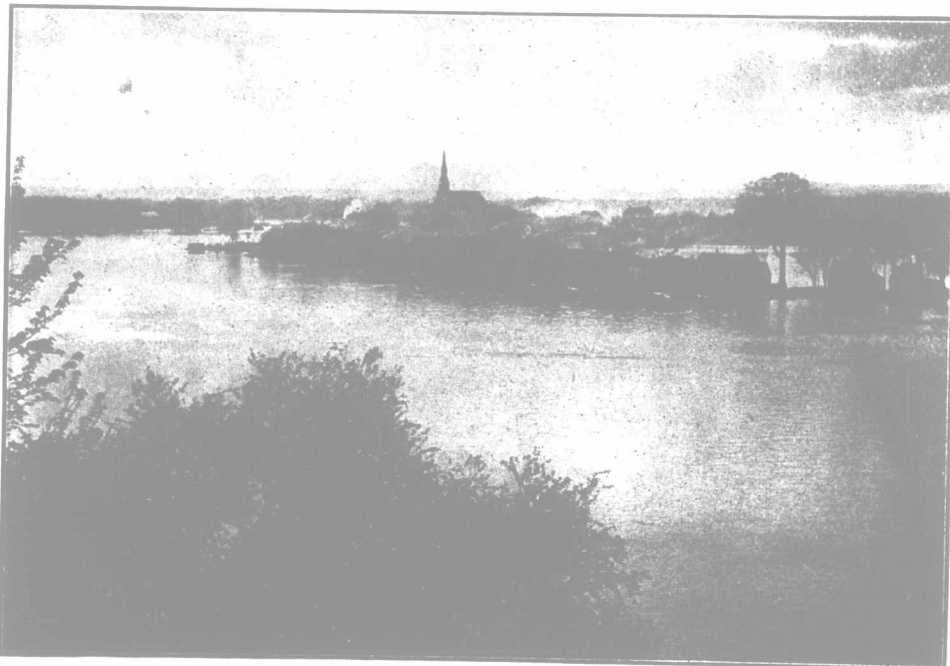
You usually come upon it from Rockliffe, to which you whiz along by trolley without any idea of going to Gatineau. Rockliffe Park is a pretty spot, and yet from its heights, or from the pavilion, you find your gaze wandering across the swiftly-flowing river to the church spire and the little houses nestling close to the water, just far enough away, and, apparently, just inaccessible enough—if you are a helpless female—to make you curious. The lure of the name, also, is upon you—La Pointe Gatineau—with its suggestion, like a faint, old-time perfume, of two hundred years of romance; for has not the sojourn of the French in Canada, through all the vicissitudes of warfare against the Indian, against the Briton, and greatly, even, against the new-world influences, at whatever detriment commercially, been a continuous romance? And yet, perhaps, so far as he himself is concerned, the habitant—the habitant of such little places as Gatineau, of course, for there is a more energetic element of the race—has chosen the wiser part. (Ah, now are we retracting in regard to the lotos-eaters? But this is a hot day.) He does not love the fiercely strenuous life. His work in the lumber camps for a part of the year, or an easy ambling at it on his small farm, gives him and his enough to eat. He has his children—many of them. There is a roof to shelter. Why should he

the low-lying swamp beyond it. And that day there came driving along in their costly furs Lord and Lady Aberdeen, for it was at the time of the Aberdeen regime in Canada. Taking fright at something, the horses dashed away, careering up the narrow street, and finally into the ice and water along the shore. There were smothered shrieks and running to and fro among the people; but two, Father Champagne, the village cure, and another, kept their presence of mind. By the most prompt and vigorous measures these two managed to extricate the vice-regal party, and a distressing calamity was averted.

Some time later the Governor-General and his wife sent a chime of bells for the church, as a present to the village and to the priest. The day before the "blessing" of the bells, Helene and I, with some others, were at Rockliffe. Helene went to Gatineau; I went climbing hill and dale after Prof. Fletcher, of whom you sometimes read in "The Farmer's Advocate," and who was out that day for the ostensible purpose of teaching an enthusiastic band of students botany—and so I missed seeing the flower-decked bells all ready for the blessing. Next day, so we heard, was a great day at Gatineau Point. The priest, Champagne, now sleeps in the village churchyard, and the bells ring out over his grave, and over the river to Rockliffe, where you may hear their music very sweetly, mellowed by the distance of a still summer morning.

#### OUR SCRAP BAG.

Here is a device which I saw not long ago for protecting dainty silk or net waists while hanging in the clothes room.



La Pointe Gatineau in Time of Flood.

King's Mountain in the distance.

wear his life out in attaining possessions, in living up to a fashion which he must soon leave? . . . You think of all this as you sit at Rockliffe gazing across at the peaceful little hamlet; then you find out there are boats which will ferry you across. You hail one, and presently, with the twentieth-century dust of a twentieth-century Capital still on your shoes, you have moved back a century, you are in La Pointe Gatineau.

If it is during the lumbering season you will not find many men in the village; the greater number of them migrate periodically to the woods far up the river, or work in the mills; but the women will glance out at you as you zigzag up the narrow, crooked street; dark-eyed children will stop in their play as you pass; and everywhere you will hear the soft patois, which your meagre bit of Collegiate French will scarcely help you to understand.

Of a hot summer day Gatineau Point indeed may seem "falling asleep in a half dream," but it has had one day of excitement in its history. At that time the river was in flood, with great floes of ice hurtling down the river and fringing treacherously along the shore. At that time, too, the water had well-nigh surrounded the village, for at times, usually once in a year, Gatineau Point becomes an island with deep water upon

Take a piece of cheesecloth three-fourths of a yard square, put a narrow hem all the way around, and cut a small hole in the center and finish it also about the edges. Slip the hook of the clothes hanger upon which the waist is placed through this hole, and hang up. The cheesecloth will fall all around the waist, completely covering it, and so protecting it from dust or from being soiled by rubbing against darker clothing. If you prefer you may make the cover like a square bag, only open at the bottom and closed along the top, except at the point where the hook is put through. . . . By the way, you know the wrinkle about having rods instead of hooks in your closet, don't you? Upon these rods the clothes hangers may be hung, and so space may be economized and the clothes hung up in much less danger of being crushed than when piled one on top of another in the usual way. If strong iron rods cannot be obtained, old broom or rake handles will do admirably.

If pillows need renovating, the work should be done during breezy summer weather. Here are two ways:

(1) Empty one pillow at a time into a tub of tepid water, using Fels-Naptha soap and a little borax. Wash well, drain in a colander and drop into large bags of cheesecloth or white mosquito netting. Hang in a breezy place (not in

the sun, as it may draw the oil from the feathers), and leave there a few days, turning and tossing several times until dry and fluffy.

(2) If only the pillow ticks need washing, open each a short way, sew onto the cheesecloth bag, then shake the feathers into it, rip off, and hang to air while you wash the tick. When dry baste the two bags together again and shake the feathers back, then rip off and sew up the case. This plan will do away almost entirely with any muss and trouble in handling the feathers.

If the fingers of your long gloves have worn out, cut the uppers off at the wrist and turn the rough edges under, then wear them with new short gloves of the same shade and quality, or sew the two together and wrinkle at the wrist when wearing, so the seam will not show. The cost will be much less than that of buying new long gloves.

To prevent lime from collecting on the inside of a teakettle, wash the inside of the kettle out every day, and put in fresh water every time it is to be used.

To powder parsley, dip it in boiling water to make it a brilliant green, then put it into a hot oven to dry. Afterwards it may be rubbed into tiny bits and put away in jars for future use.

If brooms are wet in boiling suds once a week they will become very tough, will not cut the carpet, and will last very much longer.

## The Young People's Department.

### ON MAKING READY FOR OPPORTUNITY.

What we do upon a great occasion will probably depend upon that we already are; what we are will be the result of previous years of self-discipline under the grace of Christ or without it.—Liddon.

#### THE SYRIAN LOCUST.

It was on the side of a mountain in Palestine, that, noticing something peculiar on the hillside, I rode up to examine it, when, to my amazement, the whole surface became agitated, and began to roll down the declivity. My horse was so terrified that I had to dismount. The locusts were very young—not yet able even to jump; they had the shape, however, of minute grasshoppers. Their numbers seemed infinite; and, in their haste to get away, they literally rolled over and over, like semi-fluid mortar an inch or two in thickness.

Early in the spring of 1845, these insects appeared in considerable numbers along the sea coast and on the lower spurs of the mountains. They did no great injury at the time, and, having laid their eggs, immediately disappeared. The people, familiar with their habits, looked anxiously to the time when these eggs should be hatched, nor were their fears groundless or exaggerated. For several days previous to the 1st of June, we had heard that millions of young locusts were on the march up the valley toward our village, and at length I was told that they had reached the lower part of it. Summoning all the people I could collect, we went to meet and attack them, hoping at least to turn aside the line of their march. Never shall I lose the impression produced by the first view of them. I had often passed through clouds of flying locusts, and they always struck my imagination with a vague sort of terror; but these we now confronted were without wings, and about the size of full-grown grasshoppers. Their number was astounding. The whole face of the mountain was black with them. On they came like a living deluge. We dug trenches, and kindled fires, and beat, and burned to death "heaps upon heaps"; but the effort was utterly useless. Wave after wave rolled up the mountainside, and poured over rocks, walls, ditches and hedges—those behind covering up and bridging over the masses already killed.

By the next morning, the head of the column had reached my garden, and hiring eight or ten people, I resolved to rescue at least my vegetables and flowers. During this day we succeeded by fire and by beating them off the walls with brushes and branches, in keeping our little garden tolerably clear of them; but

it was perfectly appalling to watch this animated river as it flowed up the road, and ascended the hill above my house.

At length, worn out with incessant skirmishing, I gave up the battle. Carrying the pots into the parlor, and covering up what else I could, I surrendered the remainder to the conquerors.

THE ONION.

I know there is supposed to be a prejudice against the onion, but I think there is rather a cowardice in regard to it. I doubt not that all men and women love the onion; but few confess their love.

C. D. WARNER.

THE YOUNG NATURALIST.

Sweet reader, to this gentle rhyme I prithee pay attention;

I loiter, loiter here and there, And hate all fuss and panic;

And here I see a butterfly Upon a garden paling,

Where other fishers sit like logs And say they capture perches,

For caterpillars green and red, For slugs upon the daisy,

My dearest relatives indulge In sermons out of measure;

A swampy stream's meanderings Full soon my bag enriches;

So come and join me, reader tried, And get both damp and dusty;

T. H.

ANOTHER LETTER FROM AUSTRALIA.

Dear Cousin Dorothy,—I received a great many delightful letters, on Empire Day, from cousins in Canada, all of which I hope to answer.

sometimes with bush fires. We do not have much snow in the winter here, and very little frost, as we are so high up.

From your loving cousin, DAPHNE BREWSTER.

Thank you, again, for the pressed flowers. I shall have to put them all in a book together. I think there are tree-ferns in British Columbia, but not in this part of Canada.

A Letter of Thanks.

I have been an interested reader of "The Farmer's Advocate" for some years, but this is the first attempt I have made to write you a letter.

Box 735, Peterboro, Ont.

CLEON AND I.

Cleon hath a million acres, ne'er a one have I;

Cleon hath a dozen fortunes, not a penny I;

Cleon, true, possesseth acres, but the landscape I;

Cleon is a slave to grandeur, free as thought am I;

Cleon sees no charm in nature, in a daisy I;

Cleon hears no anthems ringing in the sea and sky

Cleon is a slave to grandeur, free as thought am I;

Cleon is a slave to grandeur, free as thought am I;

WHO BIDES HIS TIME.

Who bides his time, and day by day Faces defeat full patiently,

Who bides his time—he tastes the sweet Of honey in the saltiest tear;

Who bides his time and fevers not In the hot race that none achieves,

Who bides his time and fevers not In the hot race that none achieves,

Who bides his time and fevers not In the hot race that none achieves,

—James Whitcomb Riley.

CHANGING THE SENTIMENT.

A public reader is oftentimes at the mercy of the whims and caprices of a cranky audience.

His consternation was extreme when the minister's wife, who was president of the temperance society, rushed up to him shortly before the reading of that number and requested him to change the sentiment of the following lines:

And now I am come with this lost love of mine, To tread but one measure, drink one cup of wine.

to this version:

And now I am come with this beautiful maid, To tread but one measure, drink one lemonade.

The usual calm and self-possession of the reader was greatly shaken by this sudden change, and, fearing he might forget, he said the lines over and over again.

And now I am come with this maiden here, To tread but one measure, drink one glass of beer.

The shiver that ran down his back communicated itself to the audience, and congealed them into rows of frozen niceties.

PLEASURES OF AUTOMOBILING.

Twomilesaminute, Seehowwefly!

Whatisthatblur? Onlythetrees.

Ahankandarush, Aflashandasmell—

Ajarandascram— Itlookedlikeahorse.

Outoftheroad! Giveusashow!

As a fond mother, when the day is o'er, Leads by the hand her little child to bed,

Still gazing at them through the open door,

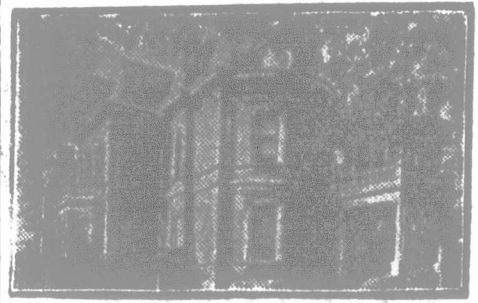
Nor wholly reassured and comforted By promises of others in their stead,

Leads us to rest so gently that we go Scarce knowing if we wish to go or stay,

—Henry Wadsworth Longfellow.

ASBESTOS HORSESHOES.

Asbestos horseshoes are an invention of a Honolulu blacksmith. There has long been a demand for such an article, it is said.



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Superior Buildings, Equipment and Staff Moderate Fees E. A. HARDY, B.A., Principal

Superfluous Hair

Can only be permanently removed by ELECTROLYSIS That we have been successful in this work is evidenced by the fact that we have the largest establishment of the kind in Canada, and as large as any elsewhere.

There will be cheap fares, which will lessen your expense. Consultation free—here or by mail.

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Healthy, happy, heavenly beautiful woman.

LET ME NURSE YOU carefully back to health, show you how to be strong, buoyant, contented.

Be first to apply. I treat by mail if you are not able to come to me. Large experience treating successfully rheumatism, chronic constipation, anemia, general debility, leucorrhoea, nerve-weakness, threatened appendicitis, and other troubles peculiar to sick women.

Send for a FREE Sample of ORANGE LILY.

If you suffer from any disease of the organs that make of you a woman, write me at once for ten days' treatment of ORANGE LILY, which I will send to every lady enclosing 8 cent stamps.

You can use it and cure yourself in the privacy of your own home for a trifle, no physician being necessary. Don't fail to write to day for the FREE TRIAL TREATMENT.

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

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

\$12 woman's Fall suits \$6.50 Tailored to order. Also suits to \$15. Send today for free cloth samples and style book. Southcott Suit Co., London, Ontario.

### U. S. CREAM SEPARATOR

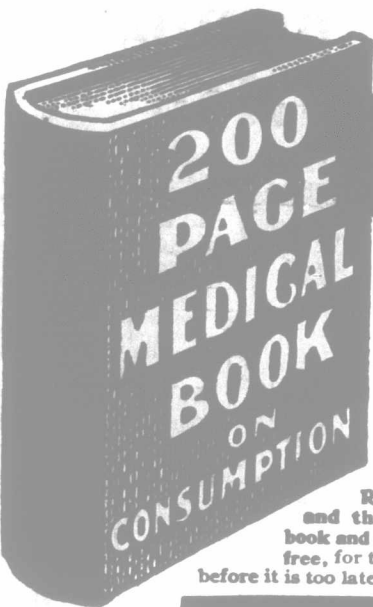
will make most money for you because it gets most cream. It averages to skim cleaner than other separators, and that's what counts in the long run. The U.S. has been doing the best work in many thousands of dairies for the past 10, 12 to 15 years. Do not throw away money that a U.S. will save. The U.S. is also the simplest, strongest, safest, neatest separator.



Examination, comparison, experience, ALL prove it. Only two parts in the bowl — easy to wash. Gears ALL enclosed, turn in oil, run surprising easy. No spattering of oil or slopping of milk with the U.S. Costs you nothing to find out why the U.S. is the best and it's money in your pocket to learn. Just write: "Send Catalogue No. 110,"

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Bellows Falls, Vermont

## Consumption Book



### FREE

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of anyone 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 was hopeless.

Write at once to the Yonkerman Consumption Remedy Co., 209 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. Write today. It may mean the saving of your life.

### 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 must be enclosed.

### Miscellaneous.

#### ALLOWANCE FOR OPENINGS IN MASONWORK.

Is a mason allowed all the openings, such as doors and windows, in laying brick? The mason laid by the thousand.

D. K. M.

Ans.—Not when he is laying by the thousand. He is only entitled to payment for the number of bricks he lays.

#### THE GROUND-HOG PEST.

I have lately become a subscriber and reader of your valuable paper, which I prize much. I am a young farmer, and wish to ask if your correspondents can give some way to destroy ground-hogs, or woodchucks as some call them. I find them destructive in clover. I have now a field of turnips near the clover pasture, and they eat them for quite a distance in the field.

C. M.

Ans.—Shooting, poisoning and drowning are the commonly advised remedies. Will some reader, with experience, tell how?

#### PURCHASE OF FARM.

I bought a farm, March 6th, 1907, for \$800, without interest, and paid \$50 to bind the bargain. We were to meet in town to get the writings. A week after he wanted interest, so I told him not to-day; but the lawyer said he left a place for the interest and to-day was the time to do it. So my wife signed the agreement for two per cent. and paid \$100 on March 13th; but we did not get the mortgage and deed drawn that day, and had to come in and sign them after. He signed them, but we have not, so they are left unsigned on our part. We have done our agreement, paid \$150 down, and have to pay \$50 next March, and \$100 a year for six years more. What steps should we take? The interest would make the farm \$455 at the end of the time. His sister heard the agreement. We have improved the place about \$100, just the same as if the agreement was settled; but I intended to give him the \$50 as I agreed in March, 1908, and no interest. We went to see him, but he was away, and his sister told us she would see that interest was struck off, as she said that was the bargain, and she never knew him to go back on his word. I gave him about \$100 more for the place to get out of paying interest.

Ontario.

L. F.

Ans.—We think that if you were to go to the man and remind him personally of the arrangement in respect of interest, and propose that he accompany you and your wife to his solicitor's office and have the mortgage amended by omitting the provision for interest he would fall in with the proposition, especially if you were to refer him to his sister for corroboration of your recollection of the agreement on the point in question. You ought, also, to arrange for your own solicitor to be on hand at the closing of

the matter to see that the deed and mortgage are proper, and, in the meantime, to examine the title for you, and generally to protect your interests.

#### HORSE RUBS HIS TAIL.

1. What will stop a stallion from rubbing his tail?
2. What will make hair grow on a tail where it has been rubbed out? What will take itchiness out of stallion's legs?
3. Could you recommend anything to help a stallion that teeters in front knees a little?
4. Is Epsom salts good to feed to stallion in his oats? Will it cool his blood? If so, how much a feed would you recommend?

OLD SUBSCRIBER.

Ans.—1. First wash well with warm soft water and soap; rub dry. Then dissolve one dram of corrosive sublimate in a quart of water, part the hair, and rub a little well into the skin once daily, till itchiness ceases. Also give, internally, one ounce of Fowler's solution of arsenic in feed, or as a drench in a pint of water, night and morning for ten days.

2. After itchiness ceases, rub in lard or sweet oil every day or two. The corrosive-sublimate solution, applied in same way to the legs, will cure the itchiness.

3. See that the floor he stands on is level; shoe with a flat shoe; feed off the floor, and blister the back cords, tying for a few hours so he cannot bite the parts. After three days, grease the parts. Repeat blister in a month.

4. Yes, a closed handful of Epsom salts given twice a day for a week, in feed, will cool the blood, and may answer the purpose instead of the arsenic solution. Remember that both corrosive sublimate and arsenic are rank poisons.

#### CARE OF ONIONS.

Through a business transaction I got an acre of onions, about half of them are sets.

1. Should the tops of the large onions be broken down? If so, about what time?
2. Should the tops of the onion sets be broken down?
3. How are onions harvested?
4. How are the sets taken up?

J. F. B.

Ans.—1. Many onion-growers break down the onion tops about the middle of August, but the best authorities are agreed that the practice is of no benefit.

2. No.

3. When most of the onion necks have turned yellow and the tops dry, though many may be still green, onions should be pulled and thrown into rows. Some first use an implement that cuts below the row of onions. They are generally left outside until cured, which takes place in a week or ten days. After a rain, they can be stirred gently with a wooden rake. If the weather is very wet, it is advisable to cure them in open sheds.

4. Onions grown for sets, when they have attained the proper size, are pulled by hand after having been cut under with a wheeled hoe. They are cured outside, being turned when necessary, the process occupying about a month.

#### BLUESTONE FOR SOW THISTLE

I saw in "The Farmer's Advocate," a year or so ago, something about using bluestone for killing sow thistle. How many gallons of water should I use for one pound of bluestone, as I would like to try the bluestone?

C. G.

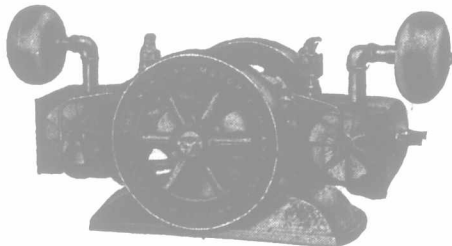
Ans.—Bluestone has not been recommended through these columns within our recollection for the killing of sow thistle—certainly not editorially. A spray solution of 10 pounds bluestone in 40 gallons of water will destroy wild mustard without seriously injuring the grain among which it grows; but bluestone is not an effective means of combating sow thistle. It is true that the annual sow thistle is more or less sensitive to the bluestone solution, but, to be effective, the solution would require to be so strong as to injure the foliage of other plants, and, even then, it is by no means certain that the annual sow thistle would be killed outright. For the perennial sow thistle (the more pernicious kind) attempts to eradicate by spraying with bluestone solution would certainly be a waste of time and material. Thorough, persistent cultivation is necessary to cope with it.

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Air Cooled  
Twin Cylinder  
Easy starting  
Engine

6 to 7 h.p. for general farm work

Is the First Successful Stationary Engine of Its Type



Opposed cylinders, alternating impulses, give increased and constant power, quick recovery under load, eliminate vibration.

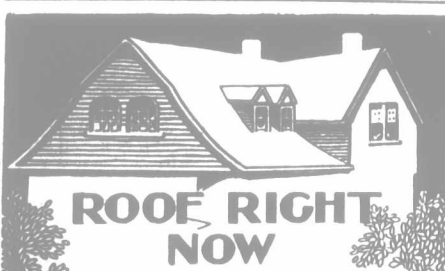
No water tank; starts easy without a crank in any temperature. Properly operated cannot be run long enough or hard enough to overheat.

Absolutely reliable, time tried and field tested. Highest grade and finish. We want to demonstrate that it is right, and that it is a complete success.

CUT SHOWS ENGINE COMPLETE. Exclusive territory to dealers who can do it justice. Write us for Catalogue "A," showing other sizes.

No cumbersome water tank or connectors. These Engines will be on exhibition in the Process Building at Toronto Fair, August 26 to September 7.

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Brighton, Ontario.



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There is one roof that saves money because it will last 100 years. Guaranteed in writing for 25 years.

### "OSHAWA" GALVANIZED STEEL SHINGLES

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**FOR SALE**—Leicester Sheep and Yorkshire Pigs—A. D. W. off-ring full flock in show condition, also rams and ewes in breeding condition, good size and extra quality. Four hogs fit for service from imported stock. **ASRAM EASTON, Appleby P. O., Ont.** Spruce Lawn Farm, Tansley station, G. T. R.

#### WHEN A WOMAN THROWS.

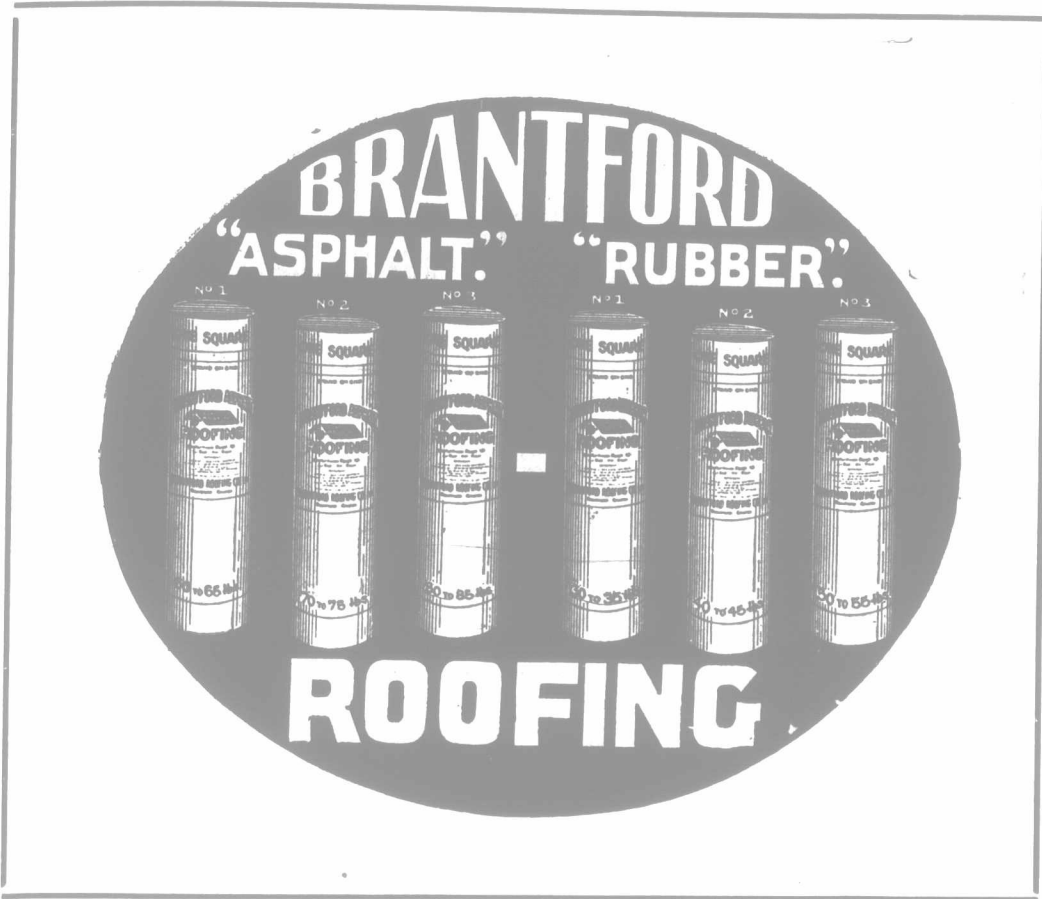
A man who runs a truck farm in Virginia tells of the sad predicament in which a negro named Sam Moore, who is in his employ, recently found himself. Sam had had considerable difficulty in evading the onslaughts of a dog from a neighboring farm. Finally the dog got him, as Sam kicked at him.

Sam's wife, hearing a tremendous yell, rushed to the rescue of her husband. When she came up the dog had fastened his teeth in the calf of Sam's leg, and was holding on for dear life. Seizing a stone in the road, Sam's wife was about to hurl it, when Sam, with wonderful presence of mind, shouted:

"Mandy! Mandy! Don't frow dat stone at de dawg. Frow it at me, Mandy."

# "Brantford" "Roofing"

Consists of two grades as shown below, and it's well to know for the kind of roof each is particularly adapted. This can be obtained by writing us direct.



**BRANTFORD ROOFING** makes a roof waterproof and sparkproof, has a thicker, smoother surface than any other; it appeals to your own good judgment; compare it with any other and you will be convinced.

**BRANTFORD ROOFING** is good all through the roll, and every roll alike. The roofing of the present and future. If you are alive to your own interests you will take time to investigate.

**BRANTFORD ROOFING** can be laid in any kind of weather; will lay smooth and stay smooth. Can you do this with all of them?

**BRANTFORD ROOFING** will not stick in the roll. Every roll will cover 10 feet by 10 feet of surface.

See our exhibit at London Fair and Sherbrooke, Quebec. Samples and prices free.

**Brantford Roofing Co.**  
Limited  
BRANTFORD, CANADA.

## GOSSIP.

### GRAHAM AND RENFREW'S NEW IMPORTATION.

Excellence excelled is plainly in evidence in the superior quality of the newly-arrived Clydesdale importation of Messrs. Graham & Renfrew, of Bedford Park, Ont. Seven stallions and two fillies make up the new arrivals, and these, together with the several on hand from former importations, which, owing to a serious outbreak of distemper among them in the early spring, were not in a condition to sell, make one of the strongest lots of Clydesdales ever seen together in their now noted stables. They were selected by Mr. Robert Graham in person, who, to use the words of the Scottish Farmer in speaking of this importation, than whom there is no better judge in Canada. Prominent among the stallions is the big, flash-moving, quality horse, Sir Marquis, a bay four-year-old son of St. Simon, the noted son of Sir Everard. Here is an ideal horse of faultless form and superb finish, chokeful of quality, a type very seldom seen. Sir Evera is a brown three-year-old, by that noted sire, Sir Hugo. He is a colt of great scale and substance, on the flashiest kind of bottom timber, and an exceedingly sweet-turned top, and will make considerable over a ton when developed. Craig Nor is a bay two-year-old, by the big premium horse, Lothian Again. This colt has all the requisites for the making of a 2,200-lb. horse, and this, coupled with his smooth turn and extra quality, make him one of the coming stars. Draw Dyke Baron is a bay two-year-old son of the great Baron's Pride. One word aptly describes him, namely, perfection, as his combination is the happy one of size, style, quality and the nicest kind of action. Baron Howes is a black two-year-old son of Baron Hood, one of the best breeding sons of Baron's Pride. This, we think, is one of the best two-year-olds ever imported. He is wonderfully smooth, beautifully moulded, with ideal underpinning, and moves like a machine. Top Spot is a bay yearling, by Baron Hood, out of this year's Carlisle champion mare—a flash

colt that will take a heap of beating at Toronto. Gay Sprague is another bay yearling, by the Royal champion Refner (imp.), that, after coming to Canada, won first and championship at Toronto and Chicago. This colt won first this year wherever shown, and at Glasgow, before shipping. Mr. Graham was offered double the money he paid for him to leave him in Scotland. The fillies are Crosby Gem, a bay two-year-old, by Baron's Fashion. This filly, at Carlisle, this year, in a class of 21, won first prize, and we look for her to repeat the trick at Toronto. Lady Betty is a bay yearling, by Baron's Pride. She is a show filly from the ground up, and will certainly make her mark in Canada. Among those on hand is Celtic Laird, a brown four-year-old son of Argus. He is now in fine fettle, and a perfect type of up-to-date Clydesdale, with symmetry of mould and abundance of quality. Glen Livet Chief is a brown four-year-old son of Argus. He is a horse of massive mould, full of quality and character, on the very best kind of bottom, and will make a big, stylish, ton horse. But the crack of the lot is Buteman, a bay three-year-old, by Pride of Blacon. He is an exceedingly stylish, sweet-turned horse of massive build, smooth to a turn, and with action galore. All these horses stand on the best possible kind of feet and ankles, and hard, flat, flinty bone, covered with thin skin and fine, silky hair—a strictly high-class lot of big, drafty character Clydesdales. In Hackneys, par excellence is the high-class crack, Brigham Radiant, the bay four-year-old son of the champion Rosador, last year was reserve champion at the Royal, being only beaten by Copmanthorpe Performer, who was again champion this year. He goes like a whirlwind; has the very best kind of all-round action, and is a thing of beauty. Coveney Marmion is a chestnut four-year-old, by the great Marmion. He is a superb, big horse, with faultless form and action. Cliff Royalist is a brown three-year-old, by that noted old sire and show horse, Garton Duke of Connaught. He is one of the thicker, smooth kind, beautifully moulded, and moves grandly. Copman-

thorpe Swell is a chestnut four-year-old, the kind that carries off the red, and to whom all eyes are instinctively drawn when in motion. Then there is the champion Hackney pony, Plymouth Horace, and his stable mate, Bathgate Swell, a pair that have never met defeat in their classes. These horses will be in their stable on the Exhibition ground at Toronto for inspection, and any or all of them are for sale.

Attention is again called to the dispersion sale of imported and home-bred Shorthorn cattle owned by Messrs. W. J. Shean & Son, at their Rosedale farm, at Owen Sound, Ont., to take place on Friday, Sept. 6th, as advertised in this paper. The Shorthorns are a richly-bred offering of high-class individual merit, some of which cost high prices, and the probability is that there will be an unusually favorable opportunity to secure good bargains at this sale. Special reference to leading individual animals in the offering of both Shorthorns and Clydesdales will be found on page 1383 in "The Farmer's Advocate" for August 22nd, which all interested will do well to look up.

The strong points of the ideal Ayrshire cow are her robust constitution and ability to make the best use of her feed, large, square udder, with four quarters of equal capacity, held strongly up on the belly, running well forward and backward, up out of the way of dirt and injury; also good-sized teats, wide apart on the four corners of the udder, in length from 2½ inches to 3¼ inches, and this type of udder is about the right pattern for a dairy cow of any breed or grade, and it is gratifying to know that more are measuring up to it as the years go by.

### SALE DATES CLAIMED.

Sept. 6th.—W. J. Shean, Owen Sound, Ont., dispersion sale, Shorthorns and Clydesdales.  
Oct. 23rd.—Geo. Amos & Son, W. R. Elliott & Sons and A. E. Meyer, Shorthorns, at Guelph.

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For full information, clip out this advertisement and send with name and address.

Canadian Correspondence College, Limited  
DEPT. E, TORONTO, CANADA.  
In consolidation with the Home Correspondence School of Canada, Limited.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock.  
TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

**FARM FOR SALE.**—122 acres of excellent loam soil, 1½ miles from Wallaceburg and sugar factory; well fenced and drained; good water; good frame house, barn and other buildings. For particulars apply to Jno Howard, Box 29, Wallaceburg, Ont.

**SCOTCH** collie puppies, excellent pedigrees and marking; easily trained. My bitches are working daily. Prices, \$5 to \$10. John E. Pearce, Wallaceburg, Ont.

**TWO** collies six months old; workers. Sire imp. prizewinner. Paul Merritt, Box 50, Beamsville, Ont.

**WANTED**—A few good subscription agents for The Farmer's Advocate and Home Magazine. Liberal terms. The William Weld Co., Ltd., London, Ont.

**WANTED**—Ladies in rural districts desirous of engaging in profitable business will do well to write the Robinson Corset & Costume Co., London, Ont.

**FARMER'S ADVOCATE "Want and For Sale" Ads.** bring good results. Send in your ads. and you will soon know all about it. The Wm. Weld Co., Ltd., London, Ont.

## FERTILIZERS

My "Star Brand" Wood-Ash-Fertilizer is Nature's fertilizer for the Lawn, Garden, Orchard or Farm. They contain plant food in a concentrated form, dry, fine, and guaranteed in first-class condition; no obnoxious odors. Put up in strong bags of 100 lbs. each. We employ no agents, sell at one price to all, direct to customers. Prompt shipment to all points. Prices, in lots of 200 lbs. or more, quoted upon application. Address CHAS. STEVENS, Napanee, Ont. Drawer 641.



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THE DAIRYMAN,  
THE POULTRY RAISER**

All need

**DR. WILLIAMS' FLY AND  
INSECT DESTROYER.**

The friend of the animal.  
A cinch to the owner.  
Sold under a positive guarantee.

**KILLS FLIES AND LICE ON  
CATTLE AND HOGS.**

Exterminates vermin in poultry houses. If not your money will be cheerfully refunded.

Live stock give better results, are more comfortable, more prosperous.

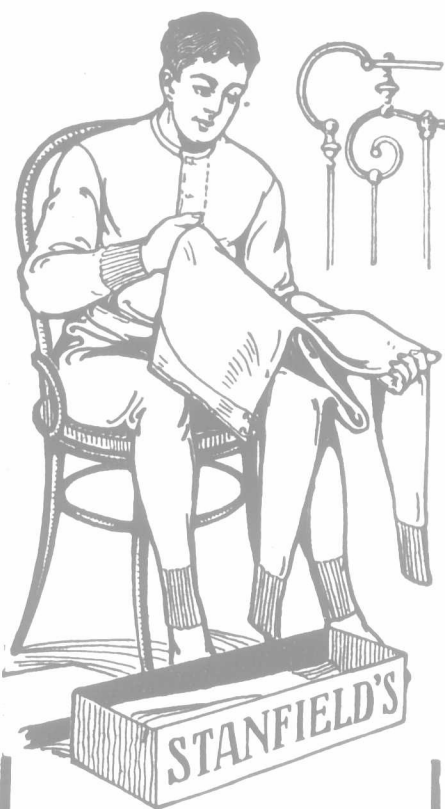
**Dr. Williams' Fly and Insect Destroyer**

is sold in tins, in liquid form, with Red Label.

**TAKE NO OTHER.**

Registered in Canada and the U. S. Send \$1.00 and we will express, prepaid, to any address in Ontario or Quebec where we have no agent appointed, as sample a 1/2 gallon Tin and Sprayer. Manufactured only by

**THE F. WILLIAMS' COMPANY,  
Morrisburg, Ont. and Madrid, N.Y.**



**Guaranteed**

Buy Stanfield's Underwear on a positive guarantee that it is absolutely unshrinkable.

If—by any chance—it should shrink, return it to your dealer and he will refund the money, or give you new garments.

**Unshrinkable.**

## QUESTIONS AND ANSWERS. Veterinary.

### WARTS.

Horse has warty growths on scrotum. They grow in bunches, and occasionally burst, but no puss escapes. A. F. J.  
Ans.—The proper treatment is to castrate and secure him as for castration. Then carefully dissect the growths off the scrotum. Then dress the raw surfaces, once daily, for three or four days, with butter of antimony, applied with a feather, after which they should be dressed, twice daily, with carbolic acid, one part; sweet oil, 30 parts. Small, flat warts can be removed slowly by applying butter of antimony as above, once daily, until they disappear. The internal administration of medicine will do no good.

### ACTINOMYCOSIS—LUMP JAW.

Two-year-old bull has two large, hard lumps, as large as a man's fist, just behind the jaw. It is not lump jaw, as they are not attached to the bone. Cow, six years old, has one lump of a similar nature and position. Is it contagious? How is it caused? S. J. W.

Ans.—Actinomycotic tumors are not always attached to the bones. I am of the opinion your cattle both have the disease. The tumors can be dissected out by a veterinarian, or, in all probability, reduced by the iodide of potassium treatment. This consists in giving the drug three times daily, commencing with dram doses and increasing the dose daily, by, say, 20 grains, until desire for food and water fail, tears run from eyes and saliva from mouth, and skin becomes scurfy. When any of these symptoms appear, cease giving the drug. Treatment can be repeated, if necessary, in two months. In addition to this, it would act well to rub the tumors well, once daily, with an ointment composed of 2 drams each of iodine and iodide of potassium, mixed with two ounces vaseline. I would not consider it wise to keep this bull for stock purposes. The disease is caused by the spores of the disease, which often exists on the food, gaining the circulation through an abrasion in mouth, tongue, etc., and it is possible for one animal to contract it from another by eating the saliva or discharge from suppurating tumors. V.

### Miscellaneous.

#### HOP CLOVER.

Give name of enclosed plant. Prince Edward Island farmers call it yellow clover; but, in pastures, cattle will not eat it readily, while there is other feed. P. W. L.

Ans.—The specimen came to hand so flattened and dried that accurate identification was impossible, but it bears close resemblance to hop clover (*Trifolium prorepens*), a plant of inferior value, very closely resembling black medick or yellow trefoil. Yellow trefoil, though also a plant of limited economic value, is superior in worth to the hop clover. As our correspondent writes from Truro, we should advise submitting a specimen to the authorities at the agricultural college there for more positive identification.

#### CEMENT CRIB FOR A SPRING.

I have a spring which runs all the time, and the water cannot be lowered. I wish to put in a cement crib, not more than four feet deep.

1. What proportions of cement to sand and gravel will I have to use?

2. Please give general information about building same. W. G.

Ans.—1. About 3 or 4 of sand to one of cement.

2. (a) Build a double crib of plank, allowing eight or ten inches between for cement, and set them in place in the water, with some device for holding them down in position.

(b) Mix the sand and cement dry, and then add enough water to moisten them, but not to make a mortar.

(c) Put the mixture in the mould, and tamp it down well.

(d) When the cement is well set, the planks may be removed.

If a cement bottom is required, a tile or iron pipe to admit the water may be put in one side, or in the bottom, and the bottom cemented. An overflow pipe, or, at least, a depression in one wall, should be provided.

### THE OAT BLIGHT.

I enclose to your address another sample of oats, which, I think, is turning out better than was expected, but the general report is that oats are light. C. J. T.

Ans.—One branch of the sample of oats received was filled with fairly-plump grain. The other was not so good. Both are more or less affected with the blight, which has perplexed the scientists this year, though not so badly affected as many other samples sent us.

### DRIED BEET PULP.

Can you let me know the value of dried beet pulp for food? How does it compare with bran? C. W. B.

Ans.—On page 521 of "The Farmer's Advocate," of March 28th, 1907, Frank T. Shutt, Chemist, Experimental Farms, Ottawa, presented a comparison of dried beet pulp with bran and shorts. According to his analyses, the composition of these three commodities stands as follows:

	Protein.	Fat.
Beet root feed .....	9.48	1.39
Bran .....	14.52	4.37
Shorts .....	15.93	5.24

Without venturing to state that the relative feeding values compare precisely according to the chemical composition, it is safe to assume that the dried beet pulp, although a feed of some considerable value, is not by any means equal to bran or shorts.

### PROTECTING SHEEP FROM COYOTES.

The farmers here suffer severe losses with their sheep from coyotes, so much so that comparatively few attempt to raise any. What has been the experience with the Dorset breed? Are the losses less with this breed in this respect, and do you suppose this breed is able to protect themselves from the coyotes? Is the quality of mutton as good, and do the markets buy them as readily as other breeds? ENQUIRER.

Ans.—We do not know from personal observation, but it has been claimed by breeders of Dorsets that they make a brave stand in defence of their lives when attacked by dogs, and that where a mature ram is at the head to lead the forces, they have been known to succeed in routing the enemy. The quality of their mutton is first class, and they sell as readily in the market as any other breed, while for early lambs they lead.

### LARGE VS. SMALL SILOS.

1. Is it better to put up two small silos or one large one? Does the corn cure better in a large one than in two small ones of the same capacity?

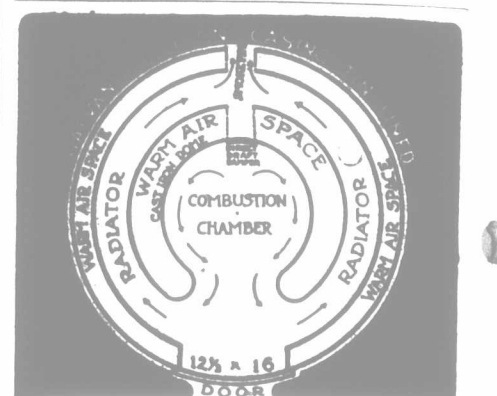
2. What size silo would it take to feed fifty head of cattle for six months, and how many acres of corn would it take to fill said silo? O. B.

Ans.—It depends upon the length of time during which the silage is to be fed. If fed out too slowly, the layers exposed from day to day are liable to dry out somewhat on top, while the portion directly beneath the surface seems to undergo changes more or less destructive, which lessen its palatability and nutritive value. It is desirable that from an inch and a half to two inches per day be fed off the whole surface. In a large silo, this cannot always be done, especially if the feeding period is to extend over a considerable length of time. Therefore, while a large silo will keep the silage with rather less relative loss than a smaller one, still, for the circumstances of the average farmer, the twin silos seem to fill the bill best, particularly where it is desired to carry a portion of the silage over for summer feeding.

2. Presuming that the cattle are of various ages, we should allow for an average feed of 30 pounds silage per head per day, which is a rather small allowance. In a feeding period of six months, this would use up about 140 tons of silage. To hold this, it would require one silo 15 feet in diameter and 30 feet high, or two silos, say, each 12 feet in diameter, but one 30 feet and the other 24 feet high. Under the circumstances, we should rather advise the building of the two small silos, as one could very conveniently be kept for summer feeding, if required. Perhaps, having this purpose in view, it would be well to make both of them 30 feet deep. Ten or eleven acres of fairly good corn would provide 140 tons of silage.

## DR. W. A. M<sup>o</sup>FALL

Special attention given to the treatment of rheumatism. Address: 168 Spadina Avenue, Toronto.



### A CAST-IRON DOME

This interior view of the dome and radiator of the DOWN DRAFT FURNACE shows that the heat from the fire rises into the cast-iron dome, is partly radiated into the inner warm-air space and the balance carried into the radiator which encircles the dome. From it the heat is discharged into the two warm-air spaces as shown.

When the smoke reaches the smoke pipe all the heat has been extracted. The hot air rises to the top of the furnace to the hot-air pipes and is then conveyed to the rooms. To burn wood the furnace is equipped by inserting through the front door the wood grate, which rests on the coal grate.

Fire door is 12 1/2 x 16, which will admit large, rough wood you otherwise cannot dispose of.

# DOWN DRAFT FURNACE

**COMPANY,**

Limited,

GALT, Ontario, Canada.

Write for an estimate on your heating, or send for a catalogue.

## Stonycroft Stock Farm

HAROLD W. MORGAN, PROP.  
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Importers and breeders of

AYRSHIRE CATTLE, CLYDESDALE HORSES,

LARGE IMPROVED YORKSHIRE SWINE AND COLLIE DOGS.

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Very light work, with GOOD SALARY to live men. Write to

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Catch 'em and Hold 'em.

### THE NEWHOUSE TRAP

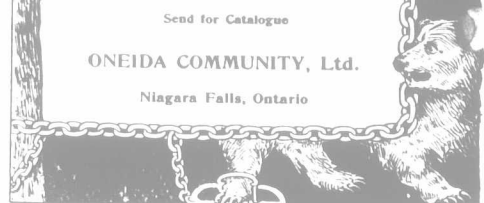
is absolutely reliable. Never fails to hold the game. Positive in action, easy to set, will not get out of order.

Made in all sizes to catch anything from a rat to a bear.

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ONEIDA COMMUNITY, Ltd.

Niagara Falls, Ontario



GOSSIP.

The owner of the world's champion butter cow, Colantha 4th's Johanna, illustrated in this issue, writes: "It will, no doubt, be of interest to many to know that this cow is still doing great work, having produced, in seven months and nine days, over 18,300 lbs. milk, containing over 665 lbs. butter-fat. She is now on her eighth month, still making a yield of about 70 lbs. milk per day."

The demand for feeding lambs in the Chicago Stock-yards, says the Live-stock Report, is intense. Competition last week pushed prices up to \$7.75, which is the highest price ever paid for lambs to take out and feed. A year ago this month, the top was \$6.85, and that was so high that everybody predicted dire things for the man who bought them. While conditions are favorable to a continuation of a strong demand for mutton, it is obvious that the man who has the nerve to pay \$7.25 for feeding lambs will have to get a very high price for the finished product to let him out. He may win; who can tell? However, the chances are against him, and it takes a man who likes speculation to pay these figures. The fact is, many farmers have an abundance of feed which they do not know how to utilize. Many are afraid of cattle, and of the two, prefer to tackle the sheep proposition. Last year some who bought lambs at \$6.50 and under were sorry, for the market at the time the stuff was finished did not behave very satisfactorily. Lambs have to bring better than \$8 to let present buyers out of the woods.

THE FLY PEST.

I noticed in your issue of August 1st an article with regard to the fly pest and how best to cope with it. The farmers in this district have been using this summer a patent composition, which I see is advertised in "The Farmer's Advocate," with good results. It is called Dr. Williams' Insect and Fly Destroyer, and is put up in various-sized cans, I believe. The one which we have holds about half a gallon, and costs 50c. We apply the liquid by means of a hand spray, which is the easiest and most effective way of using it. We have only been spraying the cows with it for ten days, but have found quite an increase in milk already, and also in flesh. With regard to time which it takes, one person can go over a cow thoroughly—that is, back, sides and belly—in between fifteen and twenty seconds. The first few days we used it, we put it on night and morning, as soon as the cows got in, but, lately, we have only been spraying them once a day in the mornings. Some of the neighbors say they only need to use it three times a week now. I think you can safely apply the three qualifications to this, namely, cheap, effective and unobjectionable, unless it be the last, as it has a rather tarry smell, though I do not mind it in the least. ARTHUR T. WOODLEY, Foster, Bromo Co., Que.

King's County, N. B.

Farmers are making slow progress with their hay, the weather, so far, being very unfavorable, with the exception of a few days. It has almost been impossible to get any stored without getting it wet, and a good deal has been put away in rather poor condition. The crop is an average one, considerably better than last year, the wet weather, lately, making up, in a large measure, for the slow growth of a cold spring. Grain is extra good—almost too heavy. The wheat acreage is small, and seems annually lessening. The crop is very good. Oats, the standard grain crop, is looking splendid everywhere, and lodging in many places. Buckwheat is also heavy. Not much barley is sown, but the same can be said of it. Potatoes are fine. All root crops are good. In fact, the outlook is quite bright for the farmers, so far as crops are concerned. Everything is late, but, if the weather comes favorable for harvesting, there should be no complaint. Pastures have been good. Cows have produced well, which, with butter and cheese bringing good prices, have given good returns for their milk. Eggs have sold well all the season. Fruit is a poor crop, with many orchards showing very few apples. Meats are high, with not much offering. Help is scarce and high. X.

# Tudhope Carriages

have been made better carriages every year since 1855. Constant study is given every detail—and each improvement is carefully considered and tested before it is adopted. Whenever an idea presents itself, that will make Tudhope Carriages easier in running, stronger in construction, smarter in durable style, more satisfactory in every way—that idea is developed and proved.

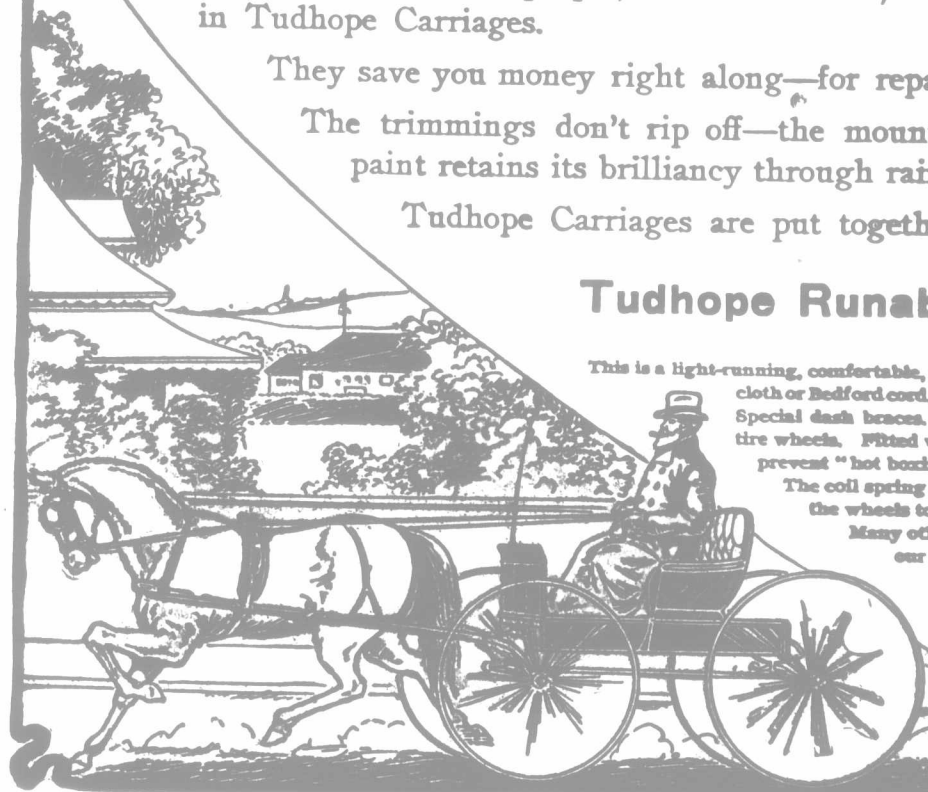
Little wonder then that people, all over Canada, find such thorough excellence in Tudhope Carriages.

They save you money right along—for repairs are few and far between.

The trimmings don't rip off—the mountings keep bright—and the paint retains its brilliancy through rain, snow and mud.

Tudhope Carriages are put together to stay together.

## Tudhope Runabout No. 12



This is a light-running, comfortable, serviceable trap. Trimmed with green wool cloth or Bedford cord, richly upholstered. Divided driver's cushion. Special dash braces. Long distance steel axles. Rubber or steel tire wheels. Fitted with "Perfection Steel Flats" that absolutely prevent "hot bearings" and the annoyance of wheels rattling. The coil spring takes up the wear of the washers and allows the wheels to run free, yet noiseless.

Many other styles of Tudhope Carriages are shown in our new catalogue which we will take pleasure in sending you free. Write for it before you decide on the new buggy.

The Tudhope Carriage Co. Limited  
Griffith, Ont.  
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## CANADIAN PACIFIC RY.

### EXCURSIONS TO TORONTO FOR THE EXHIBITION

SINGLE FARE \$3.40 LOW RATES \$2.55

DAILY

SPECIAL EXCURSION DAYS

MONDAY, AUGUST 26, TO SATURDAY, SEPT. 7, INCLUSIVE

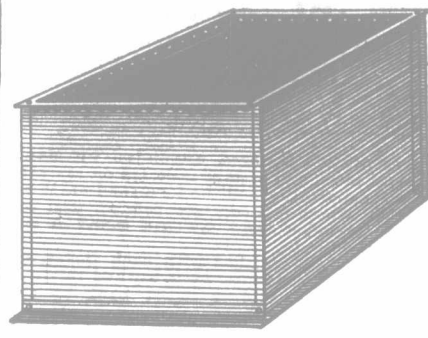
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ALL TICKETS GOOD TO RETURN UNTIL TUESDAY, SEPTEMBER 10

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Ask for free copy of Official Programme and Time Table.

W. FULTON, City Agent, London.



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Storage tanks for any purpose. Heavy galvanized steel. Strong and rigid—every joint soldered. For stock, storage of grain or house cistern. Made any size. Reasonable prices. Write now for free circular and prices. Bound to please you or money back.

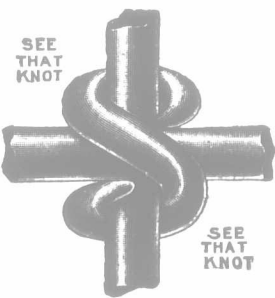
STEEL TROUGH & MACHINE CO. (LIMITED),  
No. 1 James St., Tweed, Ont.

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We have a nice bunch of rams, two-year-olds, yearlings and ram lambs for sale. Sired by choice imp. Royal-winning ram.

R. J. HINE, DUTTON, ONT.  
P. O. and Telegraph Office.

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SEE THAT KNOT

SEE THAT KNOT

## THE ANTHONY FENCE CO., LIMITED

MANUFACTURERS OF

### Woven Wire Fence,

WALKERVILLE, ONTARIO, CAN.

All styles of fence made with this tie. The neatest knot. The smallest knot. The strongest knot. The best wire fence knot we use in manufacture only the best quality of galvanized #9 or #11 wire from Newberg Mills. All fence made with No. 9 wire. If you want the best fence made, write us, or call on one of our agents.



## SIMCOE LODGE CLYDESDALES.

Our stable of imported and Canadian-bred Clydesdale stallions and fillies was never so strong in show stuff as now, although we have had some very strong lots. Look up our stable on Exhibition Grounds.

HODGKINSON & TISDALE, BEAVERTON, ONT., G. T. & C. N. R.  
Long distance phone.



## The Cause and the Effect

As the making of good bread depends as much upon the flour you use as the ability of the cook to bake, so does the manufacture of telephone apparatus depend for perfection as much on the quality of machinery as the competency of our workmen.

Our machines are of the most improved and up-to-date type, and they are looked after and made to do their work by the most able machinists Canada can produce, which is saying a great deal.

The natural result is that we put out only such apparatus as the strictest inspection can find absolutely no fault with.

You will need a telephonic communication in your locality very shortly, and it will be profitable for you to write or call immediately. "Do not put off till to-morrow what you can do to-day."

**NORTHERN ELECTRIC AND MANUFACTURING COMPANY**  
Cor. Guy and Notre Dame Sts., Montreal.  
181 Bannatyne Ave., Winnipeg.



## Farm Laborers Wanted

WORK HARVESTING FOR  
20,000 MEN IN MANITOBA  
ALBERTA AND SASKATCHEWAN

**SPECIAL EXCURSIONS \$12 GOING \$18 TRIP** Additional for the Return Ticket, under conditions as below.

### GOING DATES

- Aug. 27** From Toronto and all Stations west in Ontario, south of main line of Grand Trunk Ry., Toronto to Sarnia.  
**Aug. 30** From Toronto to Sarnia on G.T.R. and all stations north to and including Can. Pac. Stations Toronto to Owen Sound.  
**Sept. 4** From Toronto and east, to and including Sharbot Lake and Kingston, also north of Toronto and north of Cardwell Jct. on G.T.R. and north of Bolton Junction on Can. Pac.

**ONE-WAY SECOND-CLASS TICKETS WILL BE SOLD TO WINNIPEG ONLY**

Representative farmers, appointed by Manitoba, Saskatchewan and Alberta Governments, will meet and engage laborers on arrival at Winnipeg. Free transportation will be furnished at Winnipeg to points on Can. Pac. and Can. Nor. Rys. where laborers are needed, east of Moose Jaw, Kamsack and Swan River, (including branches), and at one cent a mile each way west thereof in Saskatchewan and Alberta. A certificate is furnished with each ticket, and this certificate when executed by farmer showing that laborer has worked thirty days or more, will be honored from that point for a second class ticket back to starting points in Ontario, at \$18.00, prior to Nov. 30th, 1907. Tickets are good only on special Farm Laborers' trains and will be issued to women as well as to men, but will not be issued at half fare to children.

Don't forget the  
Homeseekers' Excursions  
with Tourist Sleepers  
Aug. 27, Sept. 10 and 24

For full particulars see nearest C.P.R. agent, or  
write **C. B. FOSTER, D.P.A., C.P.R., TORONTO**

## Sugar-Beet Meal

WE WILL be on the market again with this new and popular stock food about October 1st, at which time we can take care of all enquiries. Your dealer will handle it. If you have never seen it, write us direct for sample and descriptive booklet.

MANUFACTURED BY

**The WALLACEBURG SUGAR COMPANY, Ltd.**  
Wallaceburg, Ontario.

### GOSSIP.

#### GRAHAM BROS.' NEW IMPORTATION.

With a life-long experience in the importation of Clydesdale horses, and an expert knowledge of the draft-horse requirements of Canada, Graham Bros. hold much the same position in this country as the Montgomerys do in Scotland. Their noted stables, Cairnbrogie, at Claremont, Ont., have held a great many of the notable horses that have won and held the championships of America; and, although the writer has been intimately acquainted with the Cairnbrogie stables for over a quarter of a century, he cannot call to mind the time when those stables contained so many high-class top-notchers as just now. With the arrival of the new importation of fifteen head, a few days ago, came the unbeaten three-year-old stallion, Royal Choice (13165), by the champion Everlasting, dam by Prince of Galdenoch. Here is certainly a wonderful three-year-old, that, if in condition, would easily weigh a ton, and as to his style, symmetry, quality and action, it is only necessary to mention that this year he won first prize and championship at Ayr and Kilmarnock, without doubt one of the very best three-year-olds alive. A very choice second to him—in fact, to our mind, he might beat him without any great harm being done, although he has never been before the footlights of competition in the ring—is Buchlyvie Life Guard (12878), a brown three-year-old, by the sire of champions, Prince Thomas, dam by MacNab. Although now somewhat tucked up by the long, trying voyage, this colt will easily tip the scales at 1,900 lbs., and, with his great size, he has the style, quality and smooth, true action of a Hackney—one of the very best colts ever landed in Canada. One of the particularly well-bred and massive two-year-olds is Boreland Chief (13378), by the H. and A. S. prize horse, Baron's Chief, dam by Flashwood's Best. Here is a colt of great scale and quality from the ground up, one of the coming winners. Electricity (13463) is a brown two-year-old son of the great horse, Silver Light, dam by Moncrieffe Marquis. Prince of Orange (13863) is another two-year-old, a bay, by Sir Humphrey, dam by Gay Everard. Free Mason 13862 is a bay two-year-old, by Gay Spark, dam by Prince Sturdy. Other two-year-olds are Lord Montague, by Baron Beaulieu, dam by Prince Robert, and Baron Milton, a bay son of Baronson. This colt has been sold to Mr. A. T. Lister, of Richmond, Que. Besides these, there were two exceptionally choice well-bred yearlings, King of the Baron, by Baron Airies, dam by Mains of Airies, and King Easy, by Baron Mitchell, dam by Macgregor. These compose the stallions brought over this year, and, in looking them over, one is forcibly struck with their massiveness and draftness of type, heavy, flat bone, grand good feet and ankles, and beautiful, stylish top, every one giving evidence of making ton horses, or over. Besides these, Mr. Graham brought over several extra choice fillies, the get of such noted sires as King's Crest, Benedict, Baron's Pride, The Dean, and Prince Thomas. Among those on hand, before the arrival of this lot, is the massive, quality horse, Baron Alister, a brown five-year-old son of Baron's Pride, dam by Macgregor; Celtic Pride, a bay four-year-old son of Stately City, and Lord Onslow, a bay five-year-old son of Baron Robgill, the whole making a stud of Clydesdales probably the equal of anything to be found on either side of the water in any one stable.

In Hackneys, the firm is exceptionally strong just now. Only one was added by the new importation, Cuddington, a five-year-old chestnut, by Royal Danegelt, dam Hyacinth, by Lord Derby. This is a flashy-going, all-round actor, with style and quality to spare. Others on hand are Rosary, the double champion son of the champion Rosador; Admaston Nugget, a chestnut two-year-old that won last year second at Toronto and New York, and that grand old sire of winners, Royal Oak, whose get won the family prize at New York last year. In females, there are a large number, several of which have foals at foot. A large representation of the stud will be on exhibition at Toronto, where they can be seen by all interested.

#### SMITH & RICHARDSON'S NEW CLYDESDALE IMPORTATION.

Advancing with the times, and with the determination to be second to none, a determination that has been more than proven many times when competing with the best studs in Canada, this well-known firm have lately arrived home with an importation of fourteen Clydesdale stallions and one filly, personally selected from the best studs in Scotland; each one selected for its superior individuality and breeding, particular attention being paid to the much-desired combination of size and quality, with good underpinning and true, smooth action. Better than ever before is the conclusion one comes to after a look over the lot, and, as is well known, this is, or has been, the home of many champions and other high winners in the Canadian show-rings. Among this lot are several that are certainly put up on championship lines, and we look for them to fully sustain the reputation of this firm as importers of strictly high-class horses. Prominent among the developed horses of this lot is the big, flashy, quality horse, President Roosevelt, a bay five-year-old son of the Cawdor-Cup winner, Prince of Carruchan. Here is a horse exceedingly flashy, with a beautiful top and an ideal set of quality underpinning. This year he had the £100 premium, for years held by the greatest of living sires, Baron's Pride, and stood at £5 3s. for service. He is an exceedingly successful show horse, and should take the eye of Canadians. Another five-year-old is a massive, thick brown son of Baron's Pride, Keystone, a horse chokeful of Clydesdale character and draftness of type, coupled with a goodly share of quality and true action. Duke of Malton is a black four-year-old son of Sir Everest, one of the big, flash kind so popular in this country. Still another is a black three-year-old, by the champion Everlasting, dam by the champion Prince Thomas, breeding unsurpassed, and, withal, he is one of the very best of the importation, and gives promise of being a coming champion. Douglas Pride is another three-year-old bay, by Hillhead Chief, dam by Baron's Pride, a massive colt of great substance and quality, full of character, a rare good kind. Knight of Megryfield is a bay three-year-old, by the great sire, Prince Thomas. Here is, we think, one of the very best. He will make over-a-ton horse, and has quality, style and action of the very highest. Wealthy Baron and Baron Curzon are two two-year-old sons of Baron's Pride, a mighty good pair. Baron Orr is a black two-year-old, by Baron Livan. Cuheriter is a bay two-year-old, by the great show horse and champion, Hiawatha. Rab the Ranter is a bay yearling, by Everlasting, and, on his dam's side, is a half-brother to the champion Silver Cup. Lord Danure is a bay yearling, by Danure Freeman. The filly is Flashwood Princess, a bay three-year-old, by Prince Tom. This filly was shown a great many times in Scotland, and was only placed second once. She is certainly put up on show lines, and has size and quality to suit anyone. Other stallions on hand from previous importations are: Dashing King, a black three-year-old, by King of Kyle. He is a thick, smooth, powerfully-muscled horse of grand quality, and the best of underpinning. Buchlyvie Laird, a roan three-year-old son of Baron of Buchlyvie, is a massive, powerfully-built colt, will make considerably over-a-ton horse, and is built on symmetrical lines with a vast amount of quality and flashiness, one of the best colts in Canada. Baron Columbus is a bay two-year-old, by Baron of Buchlyvie. This colt has won his spurs in the hottest kind of company. He is a smooth, evenly-finished colt, one of the kind very much looked for. Besides these there are several Canadian-bred stallions of various ages; winners among them, the whole making an aggregation of somewhere about 34 head, imported and Canadian-bred, that will stand comparison with any similar number in any stud. They will be on exhibition at Toronto, where intending purchasers will have a chance to see them and make comparisons.

Seed wheat of the most popular varieties is advertised for sale in this paper by the old and reliable seed house of John A. Bruce & Co., Hamilton, Ont. Write them for circular and price list.



## A Great Treat for You at the Toronto Exhibition

Morning, afternoon and evening, while the Fair lasts, every visitor to the Manufacturers' Building will be admitted to a free **Berliner-Victor concert**. This continuous concert will be a musical treat that no lover of music can afford to miss. You will hear Caruso, the greatest singer in the world. It would cost you \$5.00 a seat to hear this greatest of all singers if you were fortunate enough to be in New York during the opera season. Besides this, there is all the popular music of the day, all the latest coon songs, band and dance music, comic songs, side-splitting stories, and funny dialogues; hymns and sacred songs, violin, piano, 'cello and other musical solos reproduced by the wonderful Gram-o-phone.

You will get more genuine enjoyment and real amusement here in half an hour than you can get anywhere else in a whole day, and without costing a cent. Here will be exhibited every kind of instrument, manufactured by the **Berliner Gram-o-phone Co. of Canada, Limited**, and the **Victor Talking Machine Co.**

**WE HAVE A FULL SUPPLY OF RECORDS OF ALL SORTS, FROM 40c. TO \$5.00.**

This advertisement won't appear again, so cut it out to-day, bring it to us in the Manufacturing Building at the Exhibition, and receive a Berliner souvenir free.



**The Berliner Gram-o-phone Company of Canada, Ltd.**  
**MONTREAL, CANADA.**

## The Prizewinning Butter

For years at the leading agricultural fairs has been salted with WINDSOR SALT—that FINE, DRY, PURE, CLEAN Salt—that all-salt, strong-salt that never cakes, but DISSOLVES QUICKLY and WORKS IN EVENLY.

Windsor Salt betters the butter—and KEEPS it better.

You can find no other Salt so economical—no other Salt that goes so far, or does the work so well. Every grain of

## WINDSOR SALT

Is a perfect crystal—fresh in savor as the hour it came from the salt-well. It gives a delicious taste to butter—so subtle you do not think of SALT, but only of the delicate, satisfying taste.

Make up your mind—now—to no longer spoil your butter with coarse, bitter, badly-put-up Salt—use what has helped the prizewinners to win—what's not good enough for them is not good enough for YOU.

Windsor Salt OUGHT to cost more than other brands—but it sells at the same price.

This perfect Salt is also best for table use.

**Ask Any Dealer.**

## Macdonald, Fraser & Co. LIMITED,

HIGHLY IMPORTANT SALES OF

**Pedigree Aberdeen-Angus and  
Shorthorn Cattle and  
Glydesdale Horses**

IN SCOTLAND AND IN ENGLAND.

### 203 Pedigree Aberdeen-Angus Cattle.

Tuesday, 10th Sept., next, at Lewes, Sussex, dispersion sale of the valuable and highly-bred herd of Aberdeen-Angus cattle belonging to Sir James Duke, Bart., of Laughton, numbering 50 head.

Tuesday, 17th Sept., next, at Advie Mains, Strathspey, sale of a very select portion of the celebrated herd of Aberdeen-Angus cattle, numbering 32 head, belonging to Colonel Smith Grant, Auchorachan.

Wednesday, 18th Sept., next, at Morlich, Aberdeenshire, sale of a very choice lot of highly-bred Aberdeen-Angus cattle, numbering 51 head, belonging to Mr. Cran.

Thursday, 19th Sept., next, at Perth Auction Market, Perth, great sale of 70 pedigree Aberdeen-Angus cattle, including 15 choicely-bred cattle from Mr. Wilsher, of Pitpointie; 12 from Mr. Chalmers, of Aldbar, and the entire herd belonging to Mr. Hudson, of Danesfield, numbering 27 head.

### 60 Pedigree Glydesdale Horses at Perth.

Tuesday, 17th Sept., next, at Perth Auction Market, great sale of 60 high-class pedigree mares, fillies and foals, entire colts and stallions, from a number of celebrated breeders, including a very select lot of 20 horses from the celebrated stud belonging to Mr. Kerr, of Harviestoun Castle.

### 545 Pedigree Aberdeenshire Shorthorns.

Tuesday, 8th Oct., next, annual joint sale of this year's crop of bull calves from the world-renowned herds belonging to Mr. William Duthie, Collynie, and Mr. John Marr, Uppermill, numbering 85 head.

### Two Days Sale of 330 Shorthorns at Aberdeen.

Wednesday and Thursday, 9th and 10th October, within the Agricultural Hall, Kittybrewster, Aberdeen, great two days' sale of 330 choicely-bred Shorthorn cows, heifers, bulls and bull and heifer calves, belonging to the most eminent breeders in Aberdeenshire and neighboring counties.

Friday, 11th Oct., at Mains of Sanquhar, Forres, sale of the greater portion of the famed herd of Shorthorns belonging to Messrs. Law, numbering 65 head.

Friday, 11th Oct., next, at Forres, sale of a very select lot of Shorthorns, belonging to several well-known and famed breeders in Ross-shire and Inverness-shire.

Saturday, 12th October, next, at Perth Auction Market, Perth, highly-important sale of 80 high-class pedigree Shorthorn cows, heifers, bulls, and bull and heifer calves, from a number of famed breeders.

The auctioneers will be glad to send catalogues of the above sales on application, or to execute commissions for the purchase of animals.

**Macdonald, Fraser & Co., Limited,**  
PERTH, SCOTLAND.

### Improved and Unimproved Farm Lands

Fifty bushels winter wheat to the acre. The famous Pincher Creek District. Irrigation unnecessary. Flour mills and elevators in the town. For further information write

H. AMBROSE, Real Estate Agent  
P.O. Box 81, Pincher Creek, Alta.  
Land from \$9 to \$30 per acre.

### RIVERSIDE HOLSTEINS

For sale: Eight young bulls from 3 to 8 months old, out of Record of Merit cows, sired by Johanna Rue 4th's Lad and Sir Fiskertje Posch DeBoer, whose dam and sire's dam average in official test 25.87 lbs. butter in 7 days, and 87.6 lbs. milk 1 day.

J. W. RICHARDSON, Caledonia, Ont.

### LIGHT AGRICULTURAL MOTORS.

(Continued from page 1361.)

"What we want for farm purposes is simplicity, and something that will keep moving from daylight to dark, day after day, and week after week. To get this, we must have the smallest number of working parts possible, and these of a strength that will allow of the utmost power of the engine being developed before giving out. When we have arrived at this, we shall get a motor that will have the necessary adhesion, and one that will weigh in the neighborhood of four or five tons, which, carried on good wheels, of large diameter and width, will be none too heavy for general farm work.

"Next comes the question, from what are we to obtain the motor power, gasoline or steam? The perfecting of the gasoline engine for motor cars, trucks, portable engines, etc., has smoothed the way for the production of a light agricultural motor, propelled by gasoline, kerosene or alcohol; and if one is to believe all that is written in the interests of the internal-combustion engine, certainly steam is out of the running. One correspondent writes: 'To-day, with the exhausting of fuel upon the farm, with scarcity of help, and with the necessity for fast work, the motor is much needed. Its predecessor, steam, having proved inefficient for such uses, is falling into disrepute, leaving free way for the gasoline engine.' Don't believe it. 'Father Steam' is by no means defunct.

"It would be impossible, in this article, to go fully into the pros and cons as between steam and gasoline. Suffice it to say the main advantages claimed for the gasoline engine are: Its being ready for use at a moment's notice; it can be stopped at once without incurring waste of fuel and water; avoids the necessity for a team and teamster; a lighter machine may be obtained for the power developed; it is more economical in fuel; and only one man is required for its manipulation. These advantages can only be fully claimed in comparison with the ordinary traction engine, but what about the high-pressure steam tractor, motor, trucks, etc.? We have also the steam automobile coming out victorious against all comers. Steam has an elasticity that cannot be obtained with gasoline, petrol or alcohol, and the demands made upon an agricultural engine are very elastic. Steam has, so to speak, been asleep for some time past, but there is an awakening taking place. Great developments have been made in the boiler, which has been the drawback to the more extended use of the steam motor. Pressures from 300 to 500 pounds are now carried with absolute safety, and the necessary working pressure can be obtained in seven or eight minutes from cold water. The weight has now been so reduced that a boiler capable of giving off 30 horse-power effective, does not weigh more than 350 or 400 pounds. The feed is automatic, as is also the liquid fuel, which may be either gasoline, kerosene or alcohol. The engines have been much improved, the compound system being adopted, and so designed that, for short periods, the power may be more than doubled, an advantage not possessed by the gasoline engine, and one which any man who has had experience with traction engines will fully realize. Especially when his engine runs into a hole, has to climb a stiff bank, and on soft ground, or when plowing through scrub, a few more pounds of steam convert the compounding into a simple engine, and away we go.

"It is generally conceded that the thermal output of the gas engine is much superior to that of the steam engine, but victory will not be won on fuel economy alone. Reliability, wear and tear, easy manipulation and first cost will count for much.

"The fuel question is, nevertheless, deserving of very serious consideration, and it remains to be seen which class and application of it will give

the best results upon the farm. We have for the internal-combustion engine, gasoline, kerosene, petrol, alcohol and suction gas; for the generation of steam, we have coal, wood, straw, gasoline, kerosene and alcohol.

"Has the farmer realized that no less than four of the fuels are obtainable upon the farm, viz., wood, straw, alcohol and suction gas? How long is he to continue wasting a sufficient number of units of heat to do all his cultivation, seeding, harvesting, threshing, heating and lighting? It is merely a matter of economically transforming the various wasted products into a condition most suitable for combustion. He will then be no longer at the mercy of oil trusts, subject to annoyance from coal strikes or inefficient transportation.

"Too much capital is made of the necessity for a team and a teamster. If these small motors, as some would have us believe, are to entirely wipe out the horse from the farm, there might be something in the cry, but farmers are not wishing for the doom of the horse. On the contrary, they are looking for him to bring more grist to the mill. He will always have, or should have, a few brood mares upon the farm. Then, there is the threshing time, when there are the separators to run, the sheaves to haul, and the fall plowing to do. Is he to have motors to carry all this on at the same time? Then, what about hauling grain to the elevator with two or three feet of snow on the ground? But if the necessity for a team and teamster is such a serious matter, even this can be cut out, for there are now light steam tractors capable of hauling 8 to 10 tons, at a speed of from 6 to 8 miles per hour, carrying fuel and water sufficient for a forty-mile run.

"But what are these small motors to cost? is the next and very important question. Judging from the conversation the writer has had with many farmers and others, there is likely to be some disappointment, for, generally speaking, it is expected that a light agricultural motor should be bought for anything between \$500 and \$1,500, and for this amount, a machine that will displace two, three or four of our horse teams. Why, a good team of four horses is worth to-day about \$1,000. Then, there is harness, etc. Say that a 25-horse-power motor displaces only two four-horse teams, they would, with harness, be worth over \$2,000.

"Now, can it be reasonable to expect that an engine which is to supply universal power upon the farm should be sold for less than half the price of an ordinary traction engine of the same power, and only available for threshing and plowing? The motors thus far introduced into Canada range in price from \$1,750 to \$3,000, for from 18 to 50 actual horse-power. Even at these prices, provided they will do the work with greater dispatch, reduce the number of working horses, which have to be fed when idle, and diminish the number of hands necessary upon the farm, no small benefit will accrue to the farmers.

"But where are we to obtain these motors? From all accounts, the demand is in excess of the supply. Here is an industry for the Canadian manufacturers to take hold of, and they should waste no time in doing so.

"Statistics given for 1906 go to show that in Western Canada alone some 7,225,347 acres were cropped with either wheat, oats or barley, and even this area is but five per cent. of the arable land available. From the acreage above mentioned some 198,243,000 bushels of grain were produced, to obtain which the land must have been plowed, disked, harrowed, seeded, the crop harvested, and the grain threshed. Possibly some of the operations may have been repeated once or twice, but let us assume that the land was traversed five times. This would mean that the acreage of work done would

(Continued on next page.)

## KIDNEY COMPLAINTS

The kidneys form a very important channel for the out-let of disease from the system, carrying off accumulations that poison the blood. The kidneys are often affected and cause serious disease when least suspected. When the back aches, specks float before the eyes, the urine contains a brick-dust sediment, or is thick and stringy, scanty, highly colored, in fact when there is anything wrong with the small of the back or the urinary organs then the kidneys are affected.

If you are troubled with your kidneys

## DOAN'S KIDNEY PILLS

will cure you. 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."

Price 50 cents a box or 3 for \$1.25, at all dealers, or The Doan Kidney Pill Co., Toronto, Ont.

## Ogdensburg, N. Y. Fair and Horse Show

SEPTEMBER 24, 25, 26, 27, 1907

One of the largest exhibitions in the State of New York. The horse show ranks with the best in both the United States and Canada. The premiums for cattle, sheep, swine and poultry are liberal.

A magnificent floral display. Music by the famous Banda Roma of forty pieces. The finest Italian musical organization in the United States.

Trotting, pacing and running races. The breeders of horses in Canada will find it to their advantage to exhibit at this fair.

A cordial invitation is extended to our Canadian neighbors to visit us and compete. Send for premium list.

Arrangements have been made with the U. S. Customs at Ogdensburg for the admission of animals and articles from Canada for exhibition without expense to the exhibitor.

R. J. DONAHUE, Treasurer. WILLIAM H. DANIELS, President.  
LOUIS C. NASH, Secretary.

## INVESTORS

### Canada Wheat Lands

have been carefully selected by us, and we are offering them for a short time at reduced prices.

7,000 acres near Indian Head, garden of Canadian West, \$10 acre.

5,000 acres in Sunny Alberta, \$9 acre.

5,000 acres in Manitoba, picked farms.

3,000 acres, comprising cultivated farms close to Moose Jaw.

Place your money where it will bring the best results compatible with safety. Call on or write me.

J. D. HAIGHT,  
Box 1100, Moose Jaw, Sask., Canada.

## Buy Rich Lands in the Edmonton District.

Our lands lie in the best mixed-farming district of Alberta.

Write to us for full particulars.

PENDLETON & CO.,  
Lamont, Alberta.

37 miles east from Edmonton on Canadian Northern R. R.

## WINTER FAIR

Guelph, Ontario

Dec. 9th to 13th, 1907

FOR PRIZE LIST, ETC., APPLY TO

A. P. WESTERVELT, Sec'y, Toronto.

Please Mention this Paper

amount to no less than 36,126,735 acres. Add to this the haulage of the grain to the elevators, and some idea may be formed as to the enormous amount of tractive force and belt-power necessary to carry out the work, and this in but a very limited working season.

"Year by year the areas will increase by leaps and bounds, creating a greater and greater demand for motive power. Can this be supplied by horses as economically, or can we raise a sufficient number to do the work, and at the same time keep our own and the various markets of the world supplied?"

"The more motors, the more horses; the more motors, the more industries; the more motors, the less cruelty to animals, for they can have the snaps; the more motors, the larger will be the amount of marketable grain, for idle working-horses will not be eating their heads off during rainy days and long winter months."

GOSSIP.

At the annual sale of Oxford Down rams, from the well-known flock of Mr. John Treadwell, at Upper Winchenden, England, on August 7th, the average price obtained for the 59 rams sold was £22 15s. The first 22 made an average of £38 10s. The highest price was 150 guineas, paid by Mr. J. T. Hobbs for No. 5.

The late James McNeil Whistler, the noted artist, was standing bareheaded in a hat shop, the clerk heaving taken his hat to another part of the shop for comparison. A man rushed in with his hat in his hand, and, supposing Whistler to be a clerk, angrily confronted him.

"See here," he said, "this hat doesn't fit."

Whistler eyed the stranger critically from head to foot, and then drawled out:

"Well, neither does your coat. What's more, if you'll pardon my saying so, I'll be hanged if I care much for the color of your trousers."

Mr. George D. Fletcher, of Green Grove Stock Farm, Binkham, Ont., breeder of Shorthorns and Berkshires, in ordering change of advertisement, writes: "Owing to having quite a number of Joy of Morning heifers in my breeding herd of females, I have at last decided to offer for sale my noted Duthie-bred stock bull, Imp. Joy of Morning, which is now in almost show condition, and very fresh and active. My Yorkshires I now have to offer are a very choice lot, and comprise a choice lot of sows, bred to imported boars, and a number of smooth, growthy boars ready for service. All these pigs are direct from imported stock on both sides, and will be sold quick."

Messrs. Mac Campbell & Sons, Harwich, Kent County, Ont., breeders of Leicester sheep and Duroc-Jersey swine, write: "Our sheep are coming through the summer in good shape. Having sold those fitted for show, we shall not exhibit this fall. At six fairs in 1906, in Western Ontario counties, we won more first-prize red tickets than all our competitors combined. Our Durocs are doing well. Have about 70, from six weeks to four months old, to sell. Our last week's sales were one boar and two sows to State College Farm, Washington, U. S. A.; one boar and sow to Jas. McPherson, Axe Lake, Ont.; boar and sow to Wm. T. Green, Rankin, Ont.; one boar to M. A. Paterson, Comber, Ont."

TRADE TOPIC.

ALMA COLLEGE, ST. THOMAS, ONT.—The Alma Daughter Societies, of St. Thomas, London and Toronto, in behalf of the alumnae of the college, have asked permission to have erected at the main entrance to the college grounds Jubilee Memorial gates and fence. The societies have already made contracts with a London firm amounting to \$1,100, and the work of erecting the gates will be begun at once. Mrs. Jean Wylie Grey, Lady Principal of Alma College, who is spending the vacation in Europe, will return to Canada in time for the opening of the college, Sept. 10th.



Graduates  
in  
Agriculture  
May,  
1907

Ontario Agricultural College, Guelph, Can.

WILL REOPEN SEPTEMBER 17, 1907.

Give your boy a chance to advance and improve. Send him for a winter or two to the FARMER'S COLLEGE at Guelph.

Board, Fees, Books, Laundry, etc., First Year, \$75.00 to \$ 85.00  
Second Year, 85.00 to 100.00

Catalogue, together with application forms, may be had for the asking.

G. C. CREELMAN, B. S. A., M. S., President.

Selected  
Land in  
Saskatchewan!

We have made arrangements with a reliable land company to handle a large block of carefully-selected land in Saskatchewan, in the neighborhood of Jack Fish Lake, near Battleford.

Immigration is going into this district rapidly.

This land is bound to advance in value very fast.

If you want land in the West for investment, or for a home, this is your opportunity.

Very small cash payment necessary.

For further particulars and inspector's field-notes address:

The William Weld Co., Ltd.,  
London, Ont.

A BIG SHOW  
OF  
CONCRETE MACHINERY

FREE AT TORONTO EXHIBITION.

Immediately south-east of Machinery Hall, directly facing main entrance to the grounds, the largest show of new lines of Concrete Machinery ever exhibited in Canada will be given free. Bring your families, and invite every contractor, builder and cement man in your locality. We will also give a souvenir.

LONDON CONCRETE MACHINERY CO.,  
28 Redan St., London, Ont.

TRINIDAD

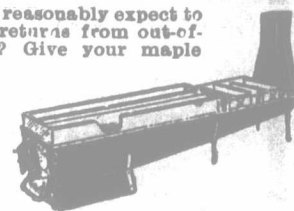
A SUPERIOR BRAND OF MADE  
UP TO DATE ROOFING  
ASK FOR SAMPLES AND PRICES

GZHFLOOR

THE W. A. FREEMAN CO. LTD.  
HAMILTON, CANADA.

Maple Syrup Makers, Attention

How can you reasonably expect to get satisfactory returns from out-of-date map pans? Give your maple grove a show by using a Champion Evaporator, and you will receive the best and quickest returns for the time spent of any work done on the farm. This crop requires no fertilizers, no plowing, seeding nor harrowing, and comes at the season of the year when other farm work is not pressing. Write for descriptive catalogue of the Champion Evaporator. Made in 22 sizes.



THE GRIMM MFG. COMPANY  
58 Wellington Street,  
Montreal, Que.

CENTRAL  
Business College  
STRATFORD, ONT.

By being the best this school has become the largest business-training school in Western Ontario. Our Commercial, B. O. and Telegraphy courses are thorough, while the teaching is done by a specialist in each department. Special provisions have been made for farmers' sons. Write for our new catalogue. It is free.

Elliott & McLachlan, Principals.

When Writing Mention Advocate



**Transform Your Kitchen Into A Cheery Dwelling Room By Installing BUCK'S HAPPY THOUGHT RANGE**

That's a factor you must keep in mind. And the new-comer to Canada wants a stove that suits all purposes—

**Burns any Fuel Brightens the Kitchen Makes Cooking Easy and Economical**

Buck's Happy Thought Range, the best for cooking or heating—the strongest, the handiest, most dependable, and greatest fuel-saver.

Ask your local dealer, or write us for our illustrated Catalogue. Sent free on request to any address in Canada. 18

**The WM. BUCK STOVE CO., Limited**  
Brantford Montreal Winnipeg

**For Sale by SUTHERLAND BROS., London, Ont.**



## SHOW-RING POINTERS

Size vs. Conformation.

Conformation in an animal is the result of BREEDING, but size is decidedly the result of FEEDING.

Many exhibitors, in their anxiety for the former, lose sight of the latter, with the result that often an inferior animal carries off the honors; but notice that those who FEED CARNEFAC always turn out animals with plenty of size, the desired smooth flesh, and the healthy, glossy coat. This is why CARNEFAC is recommended by all the BEST STOCKMEN. No substitute has proven its equal. Do not forget this in preparing your stock for SHOW or SALE. See your dealer or write us at once.

Use Magical Healer for galls and new cuts.

**Carnefac Stock Food Co., Ltd., TORONTO.**



## CLYDESDALES

At Columbus, Ont., the home of the winners, this year's importation just arrived. The pick of Scotland's best. For size, style, conformation, quality and royal breeding, they eclipse any former importation we ever made. Look them up in our barn on Exhibition Grounds. Over 30 head to select from.

SMITH & RICHARDSON, COLUMBUS, ONTARIO

## CLYDESDALES

We have imported more Royal, H. A. S., Toronto and Chicago winners than any other Canadian importers. This year's importation has just arrived, and we think are away the best lot we ever imported; leading Scotch winners among them. Look up our stable on Exhibition Grounds.

GRAHAM BROS., CLAREMONT, ONTARIO

Long-distance phone.

C. P. R.

ADVERTISE IN THE ADVOCATE

### GOSSIP.

Altogether, about 850 Clydesdales have been exported from Scotland since January 1st, 1907, being about 200 more than were exported in the same period of 1906. Canada has again, so far, been decidedly the best customer.

At an auction sale on August 1st of Berkshires from the herd of W. H. Coffman, Bluefield, Virginia, an average price, for 38 head, of \$131 is reported, the top price, \$1,000, being paid by W. S. Corsa, Whitehall, Ill., for the boar Bacon Premier 8th.

At the sale of a selection of Hackneys, from the stud of Mr. R. Whitworth, Market Weighton, England, on August 6th, fifty head, old and young, brought an average price of £80 13s., the highest price being 600 guineas for the mare, Lady Seaton, by Edemynag. The mare, Commodity, sold for 300 guineas, and a yearling colt, by Edemynag, for 100 guineas.

Having noticed in a recent issue of "The Farmer's Advocate" an account of a mare having aborted one of twin foals at about six months of gestation, and carrying the other to full time, Mr. R. W. Stephens, Lambeth, Ont., during a call on "The Farmer's Advocate" a few days ago, cited a case, coming under his own observation, of a mare, bred in the spring months, slipping in the fall a foal about the size of a cat, and May 24th, following, producing a living foal that grew into a useful horse. Also, a case where a mare was bred to two horses in same heat, one a light horse, the other a heavy-draft, and produced twins, one plainly the get of the light horse, the other of the heavy horse.

The imported Jersey cow, Du Val's Defiance, whose picture appears on another page in this issue, owned by Messrs. B. H. Bull & Son, Brampton, Ont., 20 miles west of Toronto, is a model dairy cow, combining beauty with utility in a high degree. She won a certificate of merit in the Jersey Island butter test, Oct. 18th, 1905. When 51 days in milk, she gave 38 lbs. 8 ozs. milk and 2 lbs. 13½ ozs. butter in 24 hours, as a three-year-old. She won first prize and female championship at Toronto and London, 1906; bred on the Island of Jersey. Her dam is Defiant, P. 2892 H. C., the famous dairy and show cow. Her sire, Mauser, P. 2892 H. C., won first prize and sweepstakes at April Show, Western Parishes, Jersey, sire Defiant 2nd.

Dr. T. S. Sproule, M. P., Markdale, Ont., in ordering a change in his advertisement of Shorthorn cattle in this issue, writes: "I have found 'The Farmer's Advocate' a good medium to advertise in. Last year I succeeded, without difficulty, in disposing of all the stock I had for sale—six bulls and some heifers—and this year I have, so far, sold three bulls; latest, one thick-fleshed and particularly good bull to Mr. James Bell, of Lawriston, and another equally good one in every respect to McCullough & Young, of Markdale, the noted importers and breeders of Shetland ponies as well as high-grade cattle. Both bulls were sired by the stock bull, Royal Standard 2nd, he by Royal Standard, bred by Russells, of Richmond Hill, Ont., and used at head of the late Col. Tyrwhitt's herd for years."

### VALLEY HOME SHORTHORNS AND BERKSHIRES.

Messrs. S. J. Pearson, Son & Co., Meadowvale, Ont., on C. P. R., 20 miles west of Toronto, write: "Our Shorthorn herd now numbers over sixty head. We have had plenty of grass, and our cattle are in good condition. The most of our females are in calf to our grand young bull, Royal Diamond 2nd =58469=, whose only half-brother, Royal Favorite, was the grand champion of Canada last year, both being sired by that grand bull, Royal Diamond (imp.) (84600). The most of our stock is recorded in the American Herdbook, or is eligible to be recorded there. The most of our Berkshires are sired by our first-prize boar, Victor 20th. We have a fine lot of Victor's sows, bred to our imported boar, Myrtle's Prince, due to farrow in September and October. Parties wishing stock should come and see us, or write."

Alex. Hume & Co., Menie, Ont., Hoard's Station, on the Belleville-to-Peterboro branch of the G. T. R., make a change in their advertisement of Ayrshire cattle, and write us that they are having a very successful year for sales. The herd is in excellent condition, and representatives will be out at the leading exhibitions next month, including Toronto, Sherbrooke and Ottawa. This herd ranks high among the best in Canada, and has made an excellent record in prizewinning and dairy performance.

A. A. Colwill, Newcastle, Ont., breeder of Tamworth hogs (successor to Colwill Bros.), in sending a change of advertisement, writes: "Having lost my only brother and partner in business, through death, some time ago, I shall not have out any exhibit at Toronto this year as of late years, as, owing to increasing business, we have found it necessary to enlarge and remodel our pigpens and stabling, and are consequently unable to leave home so long in such a busy time. However, we have the finest lot of young sows we ever had, bred to our imported boar, and well forward in pig, which we offer at tempting prices, also a lot of choice pigs of both sexes, from two to six months old, all sired by noted prizewinners, and out of prizewinning dams, the get of Colwill's Choice and Newcastle Warrior, both championship boars at Toronto for several years."

Mr. W. F. Stephen, Huntingdon, Que., breeder of Ayrshire cattle, who advertises in this paper, writes: "Owing to the excessively dry summer, our pastures have not given us the full bite for the stock that they are noted for, consequently the milk flow has not been up to the normal capacity of the herd. We have found that even with liberal feeding of soiling crops of oats and vetches it was most difficult to keep up the milk flow this season. Our heifers from Comrade's Last of Glenora are developing into splendid types of dairy cows, carrying fine udders and good teats. My present bull, Lessnessock Crown Prince, has given some splendid stock this year. My last fall's bull calves are all gone but two. They were a fine, uniform lot, and, like their sire, were deep-bodied fellows. Sales have been numerous, principally of young heifers and bulls."

### TRADE TOPICS.

**BARGAIN IN REAL ESTATE.**—In another column will be found an advertisement offering for sale the farm lands of the Rathburn Company, in and adjacent to the town of Deseronto, Hastings County, Ont. Situated as these lands are, close to an enterprising town, which furnishes a good market for all kinds of farm produce, and also first-class transportation by land and water, it can be readily seen that the investment is a good one.

**A SUCCESSFUL BUSINESS COLLEGE.**—The Central Business College, of Stratford, which has an advertisement appearing elsewhere in these columns, is one of the most successful business-training schools in the Province. It is well and favorably known for the thoroughness of its work and the success of its students. The school is now sending out its 21st annual catalogue, and we would advise anyone interested in a commercial, shorthand or telegraphic education to write the college for their free catalogue. The fall term commences on Tuesday, Sept. 3rd.

**ADOPTION OF CHILDREN.**—Mr. J. J. Kelso, of the Parliament Buildings, Toronto, Ont., who is the State Guardian of the Fatherless, will be pleased to meet with all who are thinking of adopting a child. The boys and girls old enough to do the choring are always scarce, but there are wee innocent babies and little fellows with wondering eyes and questions who are tired of institutions and need the fresh milk and invigorating air of the country. Mr. Kelso is never happier than when grafting one of these little shoots on a family tree. Call and see him when you are in the city, and if you do not expect to go just now, write him a letter.

GOSSIP.

Messrs. H. J. Whittaker & Sons, North Williamsburg, Dundas Co., Ont., breeders of Ayrshire cattle, Oxford Down sheep and Berkshire hogs, write: "Having a light crop, owing to the cold, late season, and a heavy hail storm later in the season, we wish to reduce our stock. We have some fine young Ayrshire bulls that will go at a bargain if taken before going into winter quarters. Have a number of Oxford Down ram lambs and young ewes that must be sold. They are a choice lot."

Mr. W. D. Pugh, Claremont, Ont., who advertises Clydesdales and Shorthorns in this paper, writes: "I am offering one three-year-old stallion, got by the champion, Macqueen (imp.). This colt is one of the big, growthy fellows, one that will weigh a ton at maturity; also one two-year-old colt, got by Baron Primrose (imp.), a big, smooth colt, with six imported crosses. I am offering some Short-horn bull calves, from eight to ten months old, from the stock bull, Gilbert Logan =36424=, and also the stock bull, which weighs 2,500 lbs."

THE DOG SHOW AT LONDON.

The Western Fair Association, recognizing the public demand of good educational attractions, has, this year, with the active co-operation of the fanciers and the generous contributions of the citizens of London, inaugurated, as an annual feature of the exhibition, a dog show. A capital building, with good permanent benching, has been fitted up, and a most attractive list of cash and special prizes are offered for all breeds, so that a large entry is assured. Those desirous of exhibiting their dogs should apply at once for premium lists to A. M. Hunt, the Secretary, as entries close positively August 31st.

Mr. J. W. Sangster, Secretary of the Clydesdale Horse Association of Canada, writes us: "I take pleasure in informing you that at a late meeting of the Clydesdale Horse Association of Great Britain and Ireland it was decided to comply with the situation raised by the passing of the late amendment to the constitution of the Clydesdale Horse Association of Canada, demanding that all imported animals, in order to be eligible for registration in Canada, must bear registration numbers in the Scottish Clydesdale Studbook. By the amendment, stallions and fillies are now given numbers in the Scottish Studbook upon application. The Directors of the Clydesdale Horse Association of Canada are to be congratulated upon the accomplishment of a remedy to a very awkward and unsatisfactory situation. All fillies imported in future, whose parents and grandparents are recorded with registration numbers in the Scottish and Canadian registration numbers in their pedigrees and in the Clydesdale Studbook of Canada. This simplifies and places upon a much more satisfactory basis Clydesdale registration in Canada and in other countries."

Brown Bros., Lyn, Ont., near Brockville, noted breeders of Holstein cattle, write: "Since last report, we have had several cows officially tested, among the number being Inka Josephine Abbecker. This cow, eight and a half months after calving, made 15.32 lbs. butter in seven days, which is nearly one-half pound more than any cow in the test, eight months or more after calving, made either in Canada or the United States in the official year ending May 15th, 1907. Last November, in a seven-day test, she made 22 lbs., and her three-year-old daughter over 18 lbs. She is due to freshen again about Oct. 1st, when we expect her to again increase her record. Sara Jewel Hengerveld 3rd, four years old, made 20 1/2 lbs., and Sara Jewel Hengerveld 2nd, twenty-three months old, 13.94 lbs. butter. These two heifers are daughters of Sara Jewel Hengerveld, who holds the Canadian thirty-day record of 2,452 lbs. milk and 97.70 lbs. butter, at four years old. Sales have been exceptionally good the present season, at satisfactory prices. We still have a number of bull calves, out of Advance Registry cows, and sired by a grandson of Pieterje Hengerveld's Count De Kol, whose daughter, De Kol Creamille, holds the world's milk record of 119 lbs. in one day, and 10,017 in 100 days."

The "Capital" Is \$40.00 A Year Better Than Other Separators

TESTS made by dairying experts show that the average cream separator leaves 0.054 per cent. of butter fat in the skim milk. That is the average loss you can expect from the average machine.

With butter at 25 cents a pound, that loses you 6.7 cents on every 500 pounds of milk you run through the average machine.

But the Capital Separator skims to a mere trace; and its average loss is only 0.01 per cent.—pretty nearly six times as clear as the average machine skims.

On every 500 pounds of milk that saving amounts to 5 1/2 cents (\$0.0547 exactly). Figure it out for yourself and see.

Now the Capital machine, although its bowl is the lightest, and its gears the easiest-turning, easily handles 500 pounds of milk an hour. Run it two hours a day, and it will

get you practically Eleven Cents a Day More Butter-

Money than the Average Machine.

If that isn't \$40.15 cents a year, what is it? If you don't think that is possible, or if the Average Machine's man says it isn't, write to me and I will prove it to you.

The reason for this big difference is the Capital Wing-Cylinder,—the 7,000-revolutions-a-minute Skimming Device that whirls the fat out of the milk almost drop by drop.

This device is the one that handles the cream and the milk only once,—doesn't mix the cream again and again with the skim and lose a little fat with each needless mixing, as the hollow-bowl machines have to do.

And the Capital machine, with its 3 1/2-pound bowl (the Lightest Bowl there is), and

its perfected, simplified, easy-running, gearing, doesn't make you work like a horse to keep it running uniformly fast enough, as you have to do with the Average Machine and its old-fashioned gears.

Nor is there any back-breaking lifting, sloppy, mussy, high-up milk tank about the Capital machine. Its milk-tank stands on the floor,—the Only Really Low-Down Tank there is. Look at the picture of it and see how easy it is to fill.

I will sell you a Capital on terms so easy the machine will buy itself before you realise it.

Tell me how many cows you keep, and what their yield is, and I will tell you just how quick a Capital will pay for itself on your farm—and what it will actually earn you, in money.

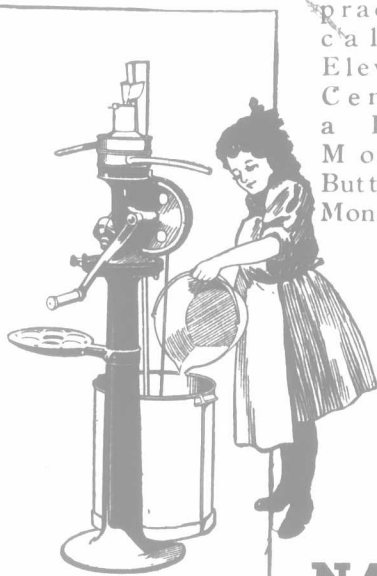
I will prove every word I say if you will write and ask me what you want to know about the Right Way to get More Money out of Cows.

Address

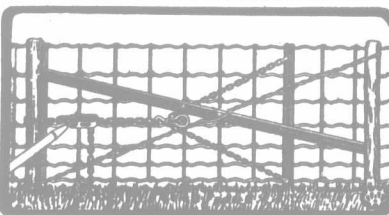
THE NATIONAL MANUFACTURING CO. LIMITED.

106 Mail & Empire Building,

TORONTO, ONT.



The Capital Cream Separator



HOW TO BUILD A GOOD FENCE

Everyone intending fence building should send for our folder on Erecting Fences. It's full of valuable information on fence building, tells how to erect woven wire fencing quickly and substantially, describes the manufacture of fence wire and has an article quoted from bulletin of U. S. Dept. of Agriculture on concrete post making, showing how these durable posts can be economically made at home. Don't fail to write for a copy. It's free.

THE BANWELL HOXIE WIRE FENCE CO., Ltd. Dept. B Hamilton, Ontario. Winnipeg, Manitoba.



Use Standard Fence, All Nos. Hard Steel Wire.

THE STANDARD WIRE FENCE CO. OF WOODSTOCK, LIMITED.

WOODSTOCK, ONT.

Did you ever examine The Standard Woven Wire Fence? If not, you should before giving an order for your requirements.

The fact that others are trying to imitate it is proof of its superiority.

The Tie That Binds will not slip, and is really the strongest lock on the market. Note how it hooks on the line wire.

Write for catalogue and sample lock, and address

**The STANDARD WIRE FENCE COMPANY, Ltd.**  
Woodstock, Ontario.

THE JAS. STEWART MFG. CO., Winnipeg, Man., General Agents for the Great Northwest.

MONEY IN CANARIES

More profitable than poultry. Experience unnecessary. We give advice free. Our new 50c book, "Money in Canaries," tells all about it. With book we send free, if you name this paper, a 10c packet BIRD BREAD. Also, "How to R. Birds of Life," and "Bird Magazine." Send 50c to-day; stamps or coin. Refunded if you buy birds from us. Birds shipped anywhere any time. Write us before buying. Address:

**COTTAM BIRD SEED**  
28 Bathurst St., London, Ont.

LARGE ENGLISH YORKSHIRES

We have a limited number of choice young pigs for sale, bred from our choicest sows, and got by the imported boars, Daimony Joe 1897 and Broomhouse Bean 1454. Pigs from the latter won all the first prizes at the Ottawa Fall Stock Show last March for the best dressed carcasses and sweepstakes over all breeds or grades. We guarantee satisfaction in all mail orders. Joseph Featherston & Son, Streetsville, Ont.

Spring Brook Stock Farm

Will exhibit Holsteins and Tamworths at Toronto. Choice young bulls and females to offer; also nice young boars and sows for sale. Will be pleased to meet my numerous old friends, and get acquainted with new ones.

A. C. HALLMAN, Breslau, Ont., Waterloo, Co.

Yorkshires—Boars ready for service; sows ready to breed, and bred; young pigs just weaned and ready to wean. Cotswold and Shropshire rams, yearlings and lambs, registered. GEO. M. SMITH, Haysville, Ont.

# PANDORA



Owing to the flue construction of most ranges it is a rather difficult feat to cook and bake successfully at the same time.



But the arrangement of the Pandora flues differs considerably from others. They are so constructed that the draft for baking is also the best for cooking, the heat circulating around the oven twice and under every pot hole before passing up the chimney.

The Pandora bakes and cooks perfectly at the same time.

Do you know of another range that does?  
If your local dealer does not sell the Pandora write direct to us for **Free Booklet**.

## McClary's

London, Toronto, Montreal, Winnipeg, Vancouver, St. John

## HIGH-CLASS FARM IMPLEMENTS

### OUR SPECIALTIES

Highest-grade STEEL HARROWS, both in Sections and Flexible.  
(Manufactured in widths to suit purchasers.)  
Our Far-famed PEA HARVESTERS and BUNCHERS.  
Up-to-date HAY CARRIERS and FORKS.  
Latest and Best SLING CARRIERS and SLINGS.  
The most approved Double and Single ROOT CUTTERS, PULPERS, etc.



### TIME IS MONEY

Money Saved is Money Made. Our make of FARM IMPLEMENTS Save Time, Labor and Strength. Therefore, Save Both Money and Muscle. OUR MACHINES tell the story of our Success. Our motto: Highest Quality, One Price, and that THE LOWEST. Send for Catalogue and Prices.

**TOLTON BROS., LIMITED, Guelph, Can.**

**SUBSCRIBE FOR ADVOCATE.**

### GOSSIP.

#### MORE CLYDESDALES FOR CANADA.

Large shipments of Clydesdales were made from Glasgow for Canada on the steamers, Corinthian and Athena, sailing August 3rd, among which are the following noted by the Scottish Farmer:

Messrs. Graham & Renfrew, Bedford Park, Ont., purchased eight or nine colts and fillies, chiefly from Messrs. Montgomery, but also to some extent from Peter Crawford, Dargavel, Dumfries, along with several Hackneys. Their purchases were made by Mr. Robert Graham, than whom there is no better judge in Canada. One of their lot was a four-year-old stallion, by Sir Simon (10465), the noted son of Sir Everard, which twice won the Glasgow premium and other district premiums throughout the country. They had two-year-old colts, by Baron's Pride (9122) and his good breeding son, Baron Hood (11260), as well as yearling colts by the latter. Another yearling colt is by the Royal champion horse, Refiner (12901), a son of Baron's Pride, which also won district premiums, and a two-year-old filly is by Baron's Fashion (10973), which bred very well in Cumberland. The dams of two of these horses are got respectively by the £1,300 horse, Lord Colum Edmund (9182), which won the Glasgow premium, and the big Prince of Wales horse, Crown and Feather (8559). The two two-year-old colts bought from Mr. Peter Crawford are got by the big premium horse, Lothian Again (11804), and Mr. Taylor's famous stud horse, Sir Hugo (10924), while the dam of the latter colt is by Sir Simon, to which reference has already been made.

Messrs. Smith & Richardson, Columbus, Ont., had a big lot of horses purchased from Messrs. A. & W. Montgomery, Netherhall and Banks, Kirkcudbright, and Mr. Peter Crawford, Dargavel, Dumfries. From the first-named firm they had about a dozen head. A capital Canadian horse was a big three-year-old, got by that good-breeding, big horse, Hillhead Chief (10774), out of a mare by the champion Baron's Pride. Another of the same age was got by the Highland and Agricultural Society champion horse, Prince Thomas (10262), and several two-year-olds were got by the best breeding young horses in the country, such as Everlasting (11381), which was never beaten, and his half-brother, Baron Mitchell (10688), a popular and highly-successful district-premium horse. One of the Everlasting colts is out of a mare by the Highland and Agricultural Society champion big horse, Prince Thomas (10262), while his grandam was by the celebrated breeding and Glasgow-premium horse, Lord Erskine (1744). The colts by Everlasting and Baron Mitchell are out of Macgregor mares, than which there could be no better breeding. Besides these, Smith & Richardson have two horses by the champion Baron's Pride himself, one of them being out of a mare by Prince Robert (7135), with grandam by Darnley (222), the very best of breeding; while the other is out of a mare by Sir Everard (5353), the best breeding horse of recent years, and sire of Baron's Pride, Sir Hugo, and many other great sires. Of different breeding is an older horse, by the Cawdor-Cup champion, Marcellus (11110), out of a mare by the dual Cawdor-Cup winner, Prince of Carruchan (8151), one of the most successful show horses ever known in Scotland. Two yearling fillies, one by Pride of Blacon (10837), one of the best of the sons of Baron's Pride, and a very successful show horse, and the other by that grand big horse, Baron McNeer (12462), are worthy of special mention. Along with a third, they were bought by Mr. John Bright, Myrtle, Ont. Smith & Richardson had seven stallions from the Dargavel stud. There was a five-year-old horse by Baron's Pride, a four-year-old by that good-breeding horse, Sir Everest (10917), a son of Sir Everard also, and two-year-olds by the big, powerful, good-actioned horse, Storm King (11957), the noted Pride of Blacon (10837), already referred to, the big, good horse, Baron Leven (Watson's) (12381), and the renowned champion horse, Hiawatha (10067), the champion and the sire of champions, including Royal Review, the H. and A. S. champion horse of 1907, with a promising yearling colt, by Dunure Freeman (11693), a big, handsome, prize horse, out of a mare by Montrave Mac (9958).

Messrs. Graham Bros., Claremont, Ont.,

had a high-class shipment of 15 head—ten stallions and five fillies, from Messrs. A. & W. Montgomery, Netherhall and Banks, Kirkcudbright. Amongst these is one of the most successful show horses of the present day, got by the champion Everlasting (11331), and winner of first prizes at the leading spring shows, as well as second at the H. and A. S. in strong competition. This horse should be hard to beat in a Canadian showing. A particularly well-bred two-year-old is by the H. and A. S. prize horse, Baron's Chief (10971), out of a well-bred mare by Flashwood's Best (9211). Another, bred in the north, of the same age, is out of a mare by the H. and A. S. first-prize horse, Moncreiffe Marquis (9953), while his grandam was by the equally well-known prize horse, Mount Royal (8065), the sire of the Cawdor-Cup champion, Royal Gartly (9844). A third, of the same age, is by the well-bred Baron Beaulieu, and out of an uncommonly well-bred mare in the Drumlanrig stud. There is a great three-year-old horse, by the H. and A. S. champion, Prince Thomas (10262). Besides these there are colts by the famous Baronson (10981), sire of the Cawdor-Cup champion, Oyama, Sir Humphrey (11942), (the sire of the second-prize yearling colt at the Highland), Baron Airies (12018), Baron Mitchell (10688), referred to above, and Gay Spark (11724). The fillies are got by Baron's Pride (9122), himself the sire of most of the sires already named; The Dean, which bred very good stock in Clackmannan, and the champion Prince Thomas (10262). Graham Bros. have been long in the trade, and the horses shipped last week have been selected by Mr. Wm. Graham personally to meet the Canadian trade.

#### SCOTTISH SHEEP-DOG TRIALS.

From the Scottish Farmer we quote, in part, the report of a sheep-dog trial at the West Linton Show, on August 10th: "Mr. Alex. Millar, Ballageich, was called upon to give the opening exhibition, and this he did with Ken, a grandson of the celebrated old Frisk. The signal was given, and Ken was breasting the hill. He took command of his sheep (five in number) with great ease and caution, then flanked them towards the pole in perfect style, and quietly, for therein lies the art. He came up to the shed without hurry or excitement, but soon the marked two revealed a determination not to be separated from their mates, a resolution which only quick and clever working could overcome. Scarcely strong enough in the eye, Ken was too tardy in checkmating the movements of his charge, nor did he with sufficient promptness respond to the directions of his master. Still, he worked well, and an opportunity occurring, a good shed was effected. He now faced up to the pen with the air of one who felt that the most difficult part was over; and this surmise was not falsified, for he coaxed them in, and then directed them though between the closing poles as if the task were simplicity itself. Old Maid (Andrew Brown, Longcroft) now slipped from her master's foot. Her opening was not only beautiful, but wonderfully wise. The first pole points and steady turns at the shed were, if anything, too hurried. Then once or twice she threw herself too far out before turning to catch the focus of her charge. Lameness seemed to account for this. But the shed once fairly entered upon, she revealed all her former skill, holding firmly up to her lot, and responding to every sign of her master. This completed, she penned cleverly, after which she walked off through the final poles like a dignified old lady who spurned all suggestions. Mr. Thomas Gilholm, the supreme favorite of the East, with Fleet, a son of the renowned Kep, entered the lists. Fleet glided away sweetly, took command gently, but with sufficient force, and he took the first pole, and took it perfectly, breasting up to the shed in a most masterful manner. Tom met him with equal alertness and activity, and soon by lightning and hairbreadth moves the shed was effected. At the pen, as at the taking away, Fleet proved himself a fit upholder of the great reputation of his ancestors. Tom and he were enthusiastically applauded as they passed along to the closing scene. The judges gave their awards as follows: Open Trials—1, Thomas Gilholm; 2, Alex. Millar; 3, Andrew Brown."

See the Exhibit of **Shorthorns** from the Salem Herd

At the Leading Fairs of 1907

J. A. WATT, Salem.

Elora Stations, G.T.R. and C.P.R.

Talks on..

**Banking by Mail**

**IN the Fat Years**

In the fat years when money is plentiful, it is the part of wisdom to set aside something to help out the lean years, which are sure to come.

Do you know?—It is when we are most successful that we need to be most careful!

4% Compounded Quarterly

You should save—you have no doubt about that. And when you save you should make every dollar work up to its fullest capacity.

Do you realize?—That if your money is earning only 3 per cent. when it could just as well be earning 4 per cent., you are actually losing one-third of the interest you should be getting?

Our booklet sent free on request, gives full information on Banking by Mail at 4 per cent. interest. Write for it to-day.

**The UNION TRUST Company Limited**

TEMPLE BUILDING, TORONTO  
Capital and Reserve, \$2,900,000

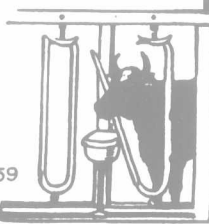
**Don't Let Your Cattle Injure Themselves.**

OUR STANCHIONS protect horses and cows from kicks, hooks and bruises in the barn. They allow the animals perfect freedom—keep stock clean. They do away with stalls and partitions—save the floor space—make barns light, airy and easily cleaned—and a boy can fasten up all the stock in a few minutes.

OUR WATER BOWLS let cows and horses drink when they want to. The bowls work automatically—supply an abundance of fresh water. They are clean, won't rust, and so made that the water can't slop over the edges.

Catalogue of these and other new inventions for farm work, mailed free if you mention this paper. Write to-day.

METAL SHINGLE & SIDING CO. Limited.  
PRESTON, Ont. 59



**The Railway Call**

for operators deserves the attention of young men. We train you well in short time for a good salary. Sample lesson and particulars sent free. Write:

**Central Telegraph School,**  
3 Gerrard St., East, Toronto.

W. H. SHAW, President. R. T. JOHNSTON, Principal.

GOSSIP.

Mr. Geo. G. Stewart, Howick, Que., is now in Scotland selecting Clydesdales and other stock, which he expects to land at Howick during the first week in September, notice of which may be looked for in these columns.

Henry Arkell & Son, Arkell, Ont., write: "Our annual importation of Oxford Down sheep arrived from England last week in good shape, and are as good a lot as we ever imported. They are from noted English breeders, namely, Messrs. J. T. Hobbs, George Adams, James Horlick, H. H. Stilgoe and W. A. Treaweke, men of the highest reputation as Oxford breeders in England; and amongst them are some Royal winners. One yearling ram, especially, is the best all-round sheep we ever owned, and we have owned some good ones. They will be exhibited at Toronto, Sherbrooke, London and Ottawa; and were selected for us by that veteran Oxford breeder, George McKerrow, of Wisconsin."

Mr. H. J. Davis, Woodstock, Ont., writes: "I have recently sold to Mr. E. V. Norton, the well-known breeder of Shorthorns, of Coaticook, Quebec, the yearling heifer, Golden Bracelet 2nd, sired by the Mayflower imported bull, Prince of Navarre, and having for her dam the fine breeding cow, Golden Bracelet, sired by Auditor. Mr. Norton also bought the show heifer calf, Verbena's Rose, sired by Imp. Prince of Navarre, and of the famous Verbena family of Shorthorns. To Mr. Thos. Hart, Jr., Inkerkip, Ont., the red bull calf, Robust Chief, sired by De-side Chief (imp.), second-prize winner at the Dominion Exhibition, Halifax, dam Tillbouries Duchess (imp.), of the well-known Jilt family of Shorthorns. Have some good show bull and heifer calves still on hand for sale."

The number of breeders and business men who are going to advertise, when they can conveniently get around to it, is legion.

And observation proves that most of those who are eternally going to, never do advertise.

There is something easing to the conscience in the reflection that one means to do the right thing, and will, when conditions are more favorable.

As Horace Greeley said, "The way to resume is to resume."

This is especially true in advertising.

The longer one delays in making a start, the longer one may, for it is ten times as easy as doing something.

"Just the right time" is more a condition of the mind than of fact, and rarely happens.

Obviously, the thing to do, then, for progress is to get in and make a start as soon as one is convinced that "something should be done,"—as soon as the spirit quickens, taking circumstances and conditions as one finds them and turning them to the best account possible.

Not that one should act first and think afterward, for no one will question the value of carefully laying one's plans before entering upon an advertising campaign, but there can be too much deliberation, too much waiting, as well as not enough, and only the most robust enthusiasm can withstand the debilitating effects of constantly "putting off."

Business life is, after all, very short, and one really can't afford to wait very long in anything, for the time that is just suited for the work to be done.

If the successful advertisers of to-day had waited for everything to be exactly to their liking before making a start, it is safe to wager that they would be "going to" yet.

**DISPERSION SALE OF HIGH-GLASS Scotch Shorthorns and Clydesdales**

At the Farm Rosedale,



4 Miles West of Owen Sound, on

**FRIDAY, SEPT. 6, 1907,**

without the slightest reserve, there will be sold the entire herd of 33 HEAD OF IMPORTED AND CANADIAN-BRED SCOTCH AND SCOTCH-TOPPED SHORTHORNS, the property of

**W. J. Shean & Son,**

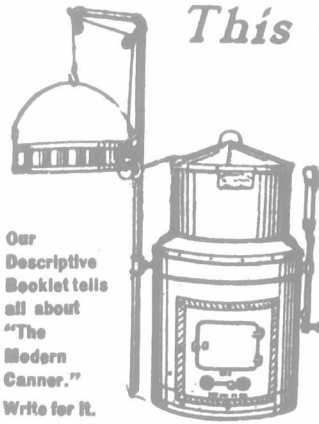
representing the

Miss Ramsden, Jessamine, Duchess of Vittoria, Juanita, Missie, Roan Lady, Bellona, Gem of Ballechin, Stamford, Crimson Flower, Village and Lavinia tribes,

Including the stock bull, Derby, Imp., a Cruickshank Secret, one of the best stock bulls alive. There are about 15 one, two and three year-old heifers, and several young bulls. This is a strictly high-class offering. Many of them cost big money. Toronto winners among them. Also some Imp. and Home-bred CLYDESDALES. All are registered. TERMS: Cash, or 8 months on bankable paper with 6%. Conveyances will leave Seldon House and Queen's Hotel, Owen Sound, at 10.30 a. m. and 1.15 p. m. on day of sale.

**CAPT. T. E. ROBSON, Auctioneer.**

**This Canner Cans at Home**



Our Descriptive Booklet tells all about "The Modern Canner." Write for it.

You operate the Modern Canner right on your own farm or in your own store.

Fruit growers, vegetable growers and grocers use it. Saves all waste. Profits are large.

Put up your surplus perishables and market them to the best advantage.

**THE MODERN CANNER CO.,**  
Canadian Branch, St. Jacob's, Ont.

**Modern Farming Requires Modern Methods**

We can supply you with a wide-tire steel wheel, low, handy wagon, or a set of wide-tire steel wheels for your old wagon, which will place you in the front position. They save a lot of labor, and will last for years without any cost for repairs. Wheels are made any size, with any width of tire desired, and to fit any axle.

Sold under a positive guarantee. Write to-day for illustrated catalogue.

**DOMINION WROUGHT IRON WHEEL CO., LIMITED, ORILLIA, ONTARIO**





## GOSSIP.

Messrs. Robert Hunter & Sons, Maxville, Ont., importers and breeders of Ayrshire cattle, in ordering a change in their advertisement, write: "Sales have been better this year than ever, and we have sold a large number of Ayrshires all over Canada and the United States, and some to Japan. There is no doubt Ayrshires are coming into their own. We still have on hand one of the best lots we ever owned, and we are offering special bargains on bull and heifer calves in order to reduce stock sufficiently for winter quarters."

Mr. D. Milne, Ethel, Ont., on the Palmerston to Kincardine branch of the G. T. R., writes: "My stock of imported and home-bred Scotch Shorthorns have done fairly well this summer, although pasture has been rather short. I have a number of very choice calves of both sexes, and a lot of good yearling and two-year-old heifers, and young cows that would make good show material, the younger part got by the richly-bred Broadhooks bull, Broadhooks Prince (imp.) =55002=, the best stock bull I ever used, and that is saying a good deal. The others were got by Scotland's Fame (imp.) =45225= and Red Duke (imp.) =86084= (77585), and other bulls of equally good breeding and merit. But, as I have been breeding Shorthorns for a long time, in fact, have grown old at it, and have no help, I will offer any of the 64 head on hand at lowest prices, and on terms to suit buyers, as I am anxious to reduce herd at present, and may make a dispersion sale about November next."

## SILVERTHORN JERSEYS.

A few minutes' walk from either the C.P.R. or G.T.R. stations at Toronto Junction lies Silverthorn Stock Farm, the home of Mr. Thompson Porter, one of Canada's leading breeders of Jersey cattle, whose herd now numbers some 60 odd head of Golden Fawns, belonging to the noted St. Lambert strain, at the head of which are the richly-bred stock bulls, Golden Fox of Dentonia, a son of the great champion, Arthur's Flying Fox (imp.), dam the noted show cow, Brunette (imp.), for whom Mrs. Massey has refused \$1,500, and Blue Bell's Fox of Linden Grove, by that great bull, Blue Bell's Blue Fox; his dam, Blue Bell, is said to be the greatest cow ever imported into the United States. Here are not only a grandly-bred pair of stock bulls, but they are show bulls from the ground up, and, judging from the youngsters now coming on, they bid fair to be soon among the most noted sires of this continent. The herd, taken all through, are an exceptionally large, strong-constituted lot, of approved type, carrying large, well-balanced udders, many of them now milking 40 to 45 lbs. a day. St. Lambert's Ada is milking 42 lbs. a day; that, by the Government standard, is equivalent to 19 lbs. of butter in 7 days. Others are doing still better. One, Maulin's Allie, on the morning of our visit gave 22 lbs. milk. Last month the test of cream, on the basis of which the price is fixed, showed the enormous percentage of butter-fat as 30 for the month's average, all of which goes to show that the Silverthorn herd are producers of a very high order. Among the younger ones are heifers under two years old that are making 6 lbs. of butter in 7 days; several of them have been winners at Toronto as well. One of the coming wonders is the heifer, Fern's Brilliant Fontaine, by Fontaine's Golden Fern, a son of America's greatest bull, Golden Fern's Lad (imp.); dam Dazzling Maid, a daughter of that great show cow, Brilliant. This wonderful heifer is a living image of the world's greatest Jersey cow, Owl's Sensation, T. S. Cooper's great champion. Few heifers of the breed can compare with this youngster for sweetness of mould and perfection of type. Mr. Porter reports the demand as greater than his supply, orders and inquiries come from the Atlantic to the Pacific, and of which speaks volumes for "The Farmer's Advocate" as an advertising medium. Half a dozen young bulls are now on hand, and as yet only young females of 18 months could be spared. In view of the preponderance of the young stock, it is coming without surprise that Mr. Porter has sold cows with a full milk record, and it and report.

The grand old Scotch Shorthorn cow, Beauty 24th, belonging to Mr. Manson, Kilblean, Oldmeldrum, has just dropped her seventeenth calf, a fine dark roan bull, sire Pride of Rothes, by Pride of Avon. Beauty 24th is in her nineteenth year, and has produced many prizewinning animals, the most notable being the great champion cow, White Heather, now owned by Mr. J. Deane Willis.

Mr. James Snell, Clinton, Ont., who advertises Shorthorn cattle, Leicester sheep, and Berkshire hogs, writes: "I have sold the young boar pigs, and sold one young bull to Mr. Jas. Cumming, of Whitewood, Man., but I still have three yearling bulls left. Sold eight grand Leicester sheep to A. F. White, Hornell, N. Y., which he is going to show at six State fairs. My son, William, has gone to assist him at the fairs, starting on the 14th inst., and left Caledonia on the 16th with 49 head—11 Hampshires, 11 Cotswolds, 10 Southdowns, some Cheviots and some Lincolns, besides the Leicesters. Most of these are newly imported and prizetakers in England. I have a number of young breeding ewes to sell, and I think as good a ram as I ever had. I do not intend to show at Toronto, but expect to go to London."

## SPRINGBANK OXFORDS.

One of the very best flocks of Oxford sheep in Wellington County is the Springbank flock, the property of Wm. Barnet, Living Springs P. O., near Fergus (G. T. R. and C. P. R.), fifteen miles north of Guelph. At present the flock numbers about 65. The aim has always been to keep the flock up to the highest standard by the purchase of the best imported rams obtainable. The shearlings offered are got by a Hobbs ram, which was first at the Royal, first at the Bath & West of England and several other shows in England. Besides, he was first as a shearer at Toronto and London in 1904. They are an exceptionally typical bunch, beautifully covered. This year's crop of lambs are the get of the second-prize Toronto winner in 1906. He is a well-built and well-covered ram, and is leaving an impress of covering, form and uniformity of type seldom seen. Reports from recent sales state that purchasers are well pleased with the stock, and if it be an Oxford Down that is wanted, Mr. Barnet can supply the right sort in breeding, type, quality and size.

Mr. Hudson Usher, Queenston, Ont., three miles from Niagara Falls, a noted breeder of Shorthorns, writes: "I have to report the sale, to Mr. James Gibb, Brookdale, Ont., of our herd bull, Queenston Archer =48898=, a thick, massive, mossy-coated roan, sired by Derby (imp.), dam Veronica (imp.), by that noted winner and sire of winners, Brave Archer (imp.), and of the same family as the great show bull and sire, Choice Goods. Queenston Archer is one of the best individuals in use in any Canadian Shorthorn herd at the present time. His sire is one of the smoothest big bulls that has been imported, and his dam is a splendid big cow, and a grand breeder. As Mr. Gibb's herd of Scotch cattle is one of the best in the country, we expect more show stuff from it in the near future. Mr. Hugh Thomson, of St. Mary's, bought the ten-months-old bull calf, Queenston Archer 3rd, a red-roan, got by Queenston Comet =62086= (a Kinellar Bessie, by Derby (imp.)), and out of Veronica (imp.) above mentioned. This calf is bred in the purple, has good masculine head, and ample depth and spring of rib. He is well let down in the flank, and gives promise of developing into a bull of substance and quality, and should merit the attention of anyone in need of a high-class bull. Mr. Thomson also takes the young roan cow, Queenston Bessie, got by Derby (imp.), dam the grand breeding cow, Bessie's Maid, by Royal Prince (imp.), a daughter of Beatrice 2nd, by Sittytton Stamp (imp.), that proved so great a producer in the Thistle Ha' herd. Queenston Bessie is a very neat cow, with plenty of size, and the type which produces the good ones. These sales through 'The Farmer's Advocate,' afford me some satisfaction, as both these men are careful breeders, and their remaining judges, I think, will be of them must be right in their opinion. Mr. Fisher has issued a list of names containing sample photographs of the best in the herd."

## Pratts STOCK GUIDE



HINTS FOR STOCK RAISERS

1 HORSE  
EQUALS 2

Working Capacity Increased by Pratts Animal Regulator—Makes Colts Grow

Mr. Thomas Johnson, of Marion, Mich., had trouble with a team horse that became rough haired and lost its appetite. One bag of Pratts Animal Regulator was given to it with the result that the animal recovered, got into fine condition, and could do more work than ever before.

Pratts  
ANIMAL REGULATOR

is a preparation of rare and costly roots and herbs chosen from all the most famous districts in the world where fine horses and cattle are reared. Arabia, Africa and Europe have been searched for their purest medicinal products to produce this wonderful preparation for the benefit of American farmers and breeders. It strengthens all the organs and tones up the whole system to a state of healthy vitality.

## Order a Bag

A 25-pound bag of Pratts Animal Regulator costs only \$3.25, and the results are worth many times that amount. Smaller packages from 25c up.

## Advice Free

Write us about all your poultry and livestock troubles. Our Veterinary Staff is at your service free of charge, and any questions relating to the care and treatment of your fowls or animals will receive expert attention.

Tell us just what your troubles are, and let us help you to make more money. We are always glad to hear from users of the Pratt Preparations. Write us any time and keep us informed regarding your experiences in raising live stock or poultry.



One Pratt-fed Horse does the work of two others.

## Pratts Books

We are now printing the five books named on the following list. Simply drop us a postal card mentioning which you want and we will mail you copies as soon as they are off the press. The regular price of these books is 25 cents, but if you are interested in Pratt preparations you get them free.

Pratts New Horse Book.  
Pratts New Cattle Book.  
Pratts New Hog Book.  
Pratts New Sheep Book.  
Pratts New Poultry Book.

IN COLIC  
IS DEATH

Thousands of Valuable Horses Lost Through Lack of Prompt Treatment

Colic always demands prompt measures to save the animal's life. Many a valuable horse has been lost while someone searched for a doctor or because the dealer had no remedy to offer. Take no chances of losing valuable stock from lack of a handy remedy.

Pratts  
COLIC CURE

is prompt, safe and absolutely certain. A bottle should always be kept handy in case of emergency. Its effect is immediate, and many a valuable animal has been saved by Pratts when all else has failed. Don't take chances. Get a bottle of Pratts Colic Cure from your dealer today, and be safe.

## A Double Guarantee

Pratts Animal Regulator, Pratts Colic Cure and all other Pratt preparations are sold by the leading dealers. With every package you get a double guarantee signed by the President of the Pratt Food Co. and also by your dealer, that Pratt Preparations will do exactly what they are intended to do.

Pratt Food Co.  
OF PHILADELPHIA

Department 88-90 Terauley St.,  
Toronto, Canada.

## Penmanship

Anybody who has the "determination" can become a good penman if he or she will intelligently follow our instructions and practice an hour or so a day for a few months.

Penmanship is of far greater importance than most young people realize.

We know from intimate acquaintance with business men that there isn't anything that creates a more

favorable impression on an employer than the neatness and legibility of an applicant's handwriting.

Write for our large, illustrated free catalogue. It explains our Business and Shorthand Courses in detail. Shows the value of an education in a school which is a member of the Business Educators' Association.

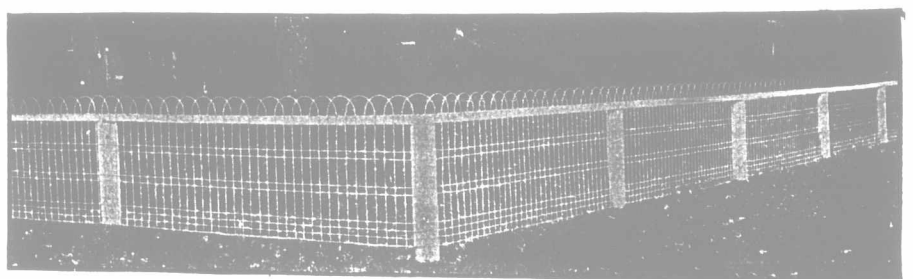
The demand for graduates is greater than we can supply.

## FOREST CITY BUSINESS COLLEGE

Members of Business Educators' Association.

J. W. WESTERVELT,  
Principal, London.

## COLLEGE REOPENS SEPTEMBER 3RD.



## PAGE WHITE FENCES

The Acme style you see above costs only from 16 cents a linear foot. Handsome and durable for lawns, parks, cemeteries, etc. Any height or length. Gates to match from \$2.25. Write for catalog, or inspect this ideal fence. From us direct or any Page dealer.

The PAGE Wire Fence Co., Limited Walkerville Toronto Montreal St. John Winnipeg 612

## Fistula and Poll Evil




Any person, however inexperienced, can readily cure either disease with Fleming's

### Fleming's Fistula and Poll Evil Cure


—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting, just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vest-Pocket Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario

## Dr. Page's English Spavin Cure.



For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ring worm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: J. A. JOHNSTON & CO., Druggists, 171 King St. E., Toronto, Ont.

## Veterinary Experience




Infalible guide to horse health. 100 page book, free. Symptoms of all diseases and treatment, by eminent veterinary, compounding of

### TUTTLE'S ELIXIR.

Sure cure for curb, colic, splint, recent shoe boils, most horse ailments. \$100. reward for failure where we say it will cure. Tuttle's American Worm Powders never fail. Tuttle's Family Elixir, greatest of all household liniments. Write for the book. TUTTLE'S ELIXIR CO., 65 Beverly Street, Boston, Mass. Canadian Branch, 32 St. Gabriel St., Montreal, Quebec.

## Imp. Clydesdale Fillies!



Have now on hand about a dozen, nearly all imported. A high-class lot and very richly bred. Combine size and quality and all in foal. Also one-year-old stallion. Write me, or come and see them. Nelson Wagg, Clarendon P.O. Ont.

### RIVER VALLEY CLYDESDALES AND SHORTHORNS.

For Sale—Two stallions, one imp., the other imp. in dam; 2 imp. mares 3 and 4 yrs. of age—a grand pair, with size and quality; 1 fully foal imp. in dam. Shorthorns all ages, of both sexes; straight milking strain. A. V. Garreoot, Thornbury Sta., Redwing P.O.

## McKILLIP Veterinary College

Chicago—Chartered 1892

AFFORDS UNLIMITED CLINICAL ADVANTAGES

New college building containing every modern equipment. Sessions begin Oct. 1, 1907. The new U. S. Sanitary and Pure Food laws require large and increasing number of Veterinary Inspectors. Write for Catalog and other information. George B. McKillip, Sec., Dept. N. Wabash Ave., Chicago

## The Ontario Veterinary College, Ltd.

Temperance St., TORONTO, Canada. Affiliated with the University of Toronto. Patrons: Governor-General of Canada, and Lieut.-Governor of Ontario. Fee, \$65.00 per session. Apply to ANDREW SMITH, F.R.C.V.S., Principal.

Clydesdales, Shorthorns and Cotswolds—For richest bred and choicest individuals of above breeds, write me. My new Cotswold and Clydesdale importation will arrive early in the season. J. C. ROSS, Jarvis P.O. & Sta.

GOSSIP.

At the dispersal sale, on July 19th, of the famous Water Place Hampshire Down flock of Mr. Buxton, in England, the average price realized for 58 ram lambs was £20 8s., the highest price being 105 guineas. The average for 16 older rams was £24 17s., the highest price being 90 guineas. The average for 160 yearling ewes was within a fraction of £5, and for 130 two-year-old ewes, the average was £5 2s.

At the annual sale of Hampshires from the Tring Park flock of Lord Rothschild, on July 22nd, the best price for a ram lamb let for the season was £47 5s. (\$235), and 63 ram lambs sold for an average of £11 5s., the highest price being 31 guineas.

### SHROPSHIRE AND WHITE WYANDOTTES.

As will be seen by reference to our advertising columns, Mr. W. D. Monkman, of Bond Head, Ont., about five miles west of Bradford, G. T. R., and about the same distance east of Beeton, is offering for sale a number of high-class Shropshire sheep and White Wyandotte cockerels and pullets. The foundation of the Shropshire flock are of Williams, Minton, Cooper and Mansell breeding, added to which are a number of breeding ewes, bred by such noted Canadian breeders as Robt. Miller, John Dryden and John Campbell, the whole making a grand selection of typical, well-covered Shropshires. This season's crop of lambs are the get of an imported Harding-bred ram, and are a grand good lot; some the equal of the lamb that last winter won fourth at Chicago, and first at Guelph, one of Mr. Monkman's breeding. For sale are some 25 lambs, a little more than half of which are ram lambs, three shearing rams and several shearing ewes. The Wyandottes are Strictly A1. The breeding cock was bred by Ross, of Guelph, and is a full brother to last winter's first-prize cock at Guelph, and a son of the first-prize cock a year ago. For sale are a large number of cockerels and pullets. Mr. Monkman is also offering two Canadian-bred Clydesdale mares, one registered, the other eligible.

### NORTHCOT YORKSHIRES.

Well known to the interested readers of "The Farmer's Advocate" is the Northcot herd of Yorkshires, the property of Mr. G. M. Smith, Haysville, Ont., about five miles south of New Hamburg Station, G. T. R. For many years Mr. Smith has been breeding and shipping Yorkshires all over the country, and in no single instance has he had a grumbling or dissatisfied customer. In this, of course, he is fortunate because occasionally the best man on earth will get an order from a natural-born crank and fault-finder, who will set up a howl that the pig shipped him is a runt, or is lousy, or something equally as bad. Mr. Smith claims to represent a pig exactly as it is. His herd is among the best the breed produces. He has a large number of them, and is in a position to fill orders with dispatch. The main stock boar is S. H. Dalmeny Topman 2nd (imp.), a massive, long, deep, quality hog, weighing 700 lbs., a grand good hog of strictly up-to-date type. His lieutenant in service is S. H. Gladiator, a son of the 1,000-lb. Toronto and London champion, S. H. Duke of York (imp.). This, too, is an exceptionally choice hog, true to type, and very growthy, and is proving a getter of exceptionally even litters. In regular breeding are 13 brood sows, the bulk of which belong to that choice, easy-feeding strain, the Lady Frost. Some of these sows are imported. Some are from imported sire and dam. All are by imported sires. All were selected as brood sows for their excellent individuality and trueness to standard bacon type; and, it is safe to say, one would travel a long way before seeing a better lot of sows in one herd. All told, there are on hand just now about 112 head. Fifty are along about two months of age; about equally divided as to sex. In older ones are some 15 young sows ready to breed, and two boars fit for service. All these are for sale, and pairs can be supplied not akin. Mr. Smith has also on hand for sale one yearling Cotswold ram, and one yearling Shropshire ram, also two Cotswold ram lambs and one Shropshire ram lamb.

# Gombault's Caustic Balsam

The Worlds Greatest and Surest Veterinary Remedy

HAS IMITATORS BUT NO COMPETITORS!

**SAFE, SPEEDY AND POSITIVE.**

Supersedes All Caustery or Firing. Invaluable as a CURE for

FOUNDER, WIND PUFFS, THRUSH, DIPHTHERIA, SKIN DISEASES, RINGBONE, PINK EYE, SWEENY, BONY TUMORS, LAMENESS FROM SPAVIN, QUARTER CRACKS, SCRATCHES, POLL EVIL, PARASITES.

REMOVES BUNCHES or BLEMISHES, SPLINTS, CAPPED HOCK, STRAINED TENDONS.

**SAFE FOR ANYONE TO USE.**

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horse men say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

**The Accepted Standard VETERINARY REMEDY**

Always Reliable. Sure in Results.



None genuine without the signature of The Lawrence-Williams Co. Sole Importers & Proprietors for the U.S. & CANADA. CLEVELAND, O.

**THE BEST FOR BLISTERING.**

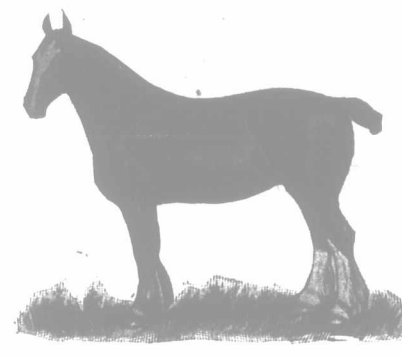
I have used GOMBAULT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success. CHAR. MOTT, Manager, Mayfield Stud Farm, Leesburg, Va.

**CURED CURB WITH TWO APPLICATIONS.**

Have used your GOMBAULT'S CAUSTIC BALSAM to cure curb. I blistered it twice, and there is no sign of it any more. The horse is as good as ever.—DAN SCHWEL, Evergreen, Ill.

**Sole Agents for the United States and Canada. The Lawrence-Williams Co. TORONTO, ONT. CLEVELAND, OHIO.**

## Imported Shires and Clydesdales Just Arrived



3 4-year-old Shire mares; 1 3-year-old Shire mare; 7 2-year-old fillies; 2 1-year-old fillies. By such noted sires as Harold of Raddington, Horbling Coqueror, and Dunsmore Kipling. Most of them have been bred to Iceland, sire of Berrywood Drayman, first prize at Toronto this year. 2 6-year-old Clyde mares, by Height of Fashion; 6 3-year-old Clyde mares; 3 2-year-old Clyde mares; 2 1-year-old colts. Several of these have been bred to Keir Democra, a massive horse of choicest quality and richest breeding. Any of these will be sold well worth the money. Apply to


W. J. Evans, Lawrence Station, OR Neil McLaughlin, Auctioneer, St. Thomas, Ont.

## W. C. KIDD, LISTOWEL, ONT.

Importer of Clydesdales, Shires, Percherons, Belgians, Hackneys, Standard-breds and Thoroughbreds

of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long distance 'phone. LISTOWEL P.O. AND STATION.


## SMITH & RICHARDSON, COLUMBUS, ONT.,



have now on hand only the choice imported colts Dashing King, a 3-year-old, and Baron Columbus, a 2-year-old; also a couple of rattling good Canadians, 7 and 3 years old.

Long-distance 'Phone. Myrtle Station, C. P. R. Brooklyn or Oshawa, G. T. R.

## IMPORTED CLYDESDALES



Just arrived: One 4-year-old mare, two 3-year-old mares, seven 2-year-old fillies and three yearling fillies, two 2-year-old stallions, and one 1-year-old. The 4-year-old mare is due to foal. Six of these fillies are high-class Scotch winners. No richer-bred lot. No more high-class lot was ever imported. They have great size and quality. The stallions will make very large show horses—full of quality. They will be sold privately, worth the money.

CRAWFORD & BOYES, Thedford Station, Widder P. O., Ont.

## Is your Horse always "Going Lamé"?

Either it's an old Strain or Swelling—or there is chronic weakness of the joints. In either case, your horse needs FELLOWS' LEEMING'S ESSENCE.

Strains in any part of the body—sprained or wrenched back, shoulder, knee or fetlock—bruises from kicks or falls—all lose their soreness when you rub the sore spot with

## Fellows' Leeming's Essence

for Lameness in Horses

It makes weak joints strong—enables a horse to do a good day's work every day. Get a bottle and keep it handy in case of accidents.

50c. a bottle. If your dealer has none, write

NATIONAL DRUG & CHEMICAL CO., LIMITED, MONTREAL.



## ABSORBINE

will reduce inflamed, swollen Joints, Bruises, Soft Bunches, Cure Boils, Fistula, or any unhealthy sore quickly; pleasant to use: does not blister under bandage or remove the hair, and you can work the horse. \$2.00 per bottle, express prepaid. Book 7-C free.

ABSORBINE, JR., for mankind. \$1.00 per bottle. Cures Varicose Veins, Varicocele Hydrocele, Strains, Bruises, stops Pain and Inflammation.

Sole only by W. F. YOUNG, P.D.F. 73 Monmouth St., Springfield, Mass.

Canadian Agents: Lyman Sons & Co., Montreal

## CLYDESDALES AND FRENCH COACHERS, IMP.



Scottish and Canadian winners, stallions, mares and fillies. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Acme. They combine size, quality and action. The French Coachers are a big, flashy, high-stepping lot, and are winners in both France and Canada. Our prices are right and our horses as good as the best. Long-distance telephone.

ROBT. NESS & SON,

Howick, Quebec.



## CRAIGALEE HACKNEYS

In my stables intending purchasers will always find a good selection of high-stepping harness horses, saddlers, etc. Just now I have a number on hand, also a few high-class Hackney mares, some with foal at foot. Noted prize-winners among them, and some rare good youngsters.

H. J. Spencely, Boxgrove P. O. MARKHAM STA. LONG-DISTANCE PHONE

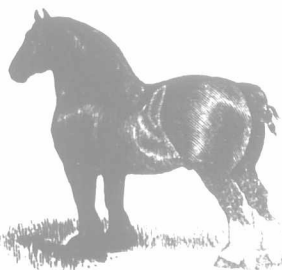


## Graham & Renfrew's

CLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, their breeding is first-class. Our Hackneys, both stallions and mares are an exceedingly high-class lot. We also have a few high-stoppers and carriage horses. Yonge Street cars pass the door every hour. Phone North 4433.

GRAHAM & RENFREW, BEDFORD PARK, ONT.



## To My Many Friends, Customers and Prospective CLYDESDALE Buyers

I wish to say I am now in Scotland. Will return home early with the best lot of stallions and fillies money will buy, which will be announced on arrival.

Yours truly,

T. H. Hassard, Millbrook, Ont.

### GOSSIP.

#### SOME MILKING RECORDS OF SHORTHORNS.

The Shorthorn cow, Florence Airdrie VI., owned by the Nebraska Experiment Station, produced, between April 7th, 1905, and April 7th, 1906, a total of 10,487 pounds of milk, 413.01 pounds of butter-fat, and 481.84 pounds of butter. Her average test was 3.94. The Taylor herd of Shorthorns at Shelburne, Mass., established in 1848, has produced many individuals, with record of from 1,200 to 1,500 pounds of milk in thirty days. A Shorthorn cow, weighing some 1,600 pounds, in the herd of Edward S. Ellis, at East Longmeadow, Mass., has a record of fifty-two pounds of milk per day and about 11,000 pounds per year, besides breeding a calf. A herd of forty Shorthorns in Western Massachusetts, supplying milk for fancy trade in New York City, makes an average test of 4.4 per cent. butter-fat. Kitty Clay IV., a Shorthorn cow bred in New York State, in a thirty-day trial yielded 1,593 pounds of milk, which made sixty-two and one-fourth pounds of butter. Two years later, she gave almost 5,000 pounds of milk in three months, her best day being sixty-five pounds. Thirty-eight cows in the Glenside herd at Granville Center, Pa., have made an average yearly record of 9,031.7 pounds of milk. Mamie Slay II., a Shorthorn cow, has a record of 10,189.1 pounds of milk at two years, 13,232.1 pounds at four years, and 47,048.1 pounds, an average of 11,762 pounds with her four calves.

#### ARLINGTON SHORTHORNS AND LEICESTERS.

A short distance from Hagersville Station (G. T. R.), in the county of Haldimand, Ont., lies Arlington Stock Farm, the well-arranged and well-kept home of Mr. J. Lishman, one of Haldimand's leading breeders of pure-bred stock, whose specialties are Shorthorn cattle and Leicester sheep. The Shorthorns represent those three great English milking strains, the Lavinias, Britannias and Waterloo Daisys. They are an exceptionally well-selected lot, carrying a wealth of natural flesh and an ideal up-to-date type. Their great development of udder stamps them at once as profitable at the pail, which they certainly are. For sale are two yearling bulls and several one- and two-year-old heifers, a nice, smooth, even lot, and a very desirable kind for the ordinary farmer. The Leicester flock numbers about 75 head, strictly high-class animals, large, squarely built, ideal in type, among which is last year's Toronto silver-medal ewe, now suckling a beautiful ewe lamb. This flock has turned out a large number of winners at Toronto and other shows, and among this year's crop of lambs are certain winners. "First come, first served," is Mr. Lishman's motto, so that parties in want of dairy-bred Shorthorns, or gilt-edged Leicesters, should move quickly, as this kind of stuff finds ready sale. Hagersville, Ont., is the post office.

#### MEADOWBROOK YORKSHIRES.

For one year the name of J. H. Snell, the owner of that splendid farm, Meadowbrook, at Hagersville, Ont., has been before "The Farmer's Advocate" readers as a breeder of large, bacon-type Yorkshire hogs. The trade that has come to him for animals for breeding purposes in that line is exceedingly satisfactory, which speaks well for the high-class Yorkshires he breeds, and the truthful representation of his corresponding description. His motto is to describe things correctly, and then, if any fault is found, it chiefly lies with the purchaser, owing to ignorance of what a good pig is. Every pig sold is a pedigreed one, and a satisfactory pedigree is furnished. The stock boar is Summer Hill Roger 5th, by S. H. National 4th (imp.), a full brother to the Toronto champion, S. H. Duke of York, dam S. H. Cotgrave Brilliant 2nd (imp.). He is a hog of massive build, with great length, depth, and powerful bone, an ideal bacon type and a very potent sire. The ten brood sows belong to the noted Bloom strain that has produced so many winners in England and Canada, and are the get of S. H. Dalmeny Topman (imp.) and S. H. Knight 6th. For sale are a large number of both sexes coming on, about three months of age, which should about fill the bill. Write Mr. Snell, to Hagersville P. O., Ont.



**Bog Spavin**  
Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.  
**Fleming's Spavin Cure (Liquid)** is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be limited. Easy to use, only a little required, and your money back if it ever fails.  
**Fleming's Vest-Pocket**  
Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.  
**FLEMING BROS., Chemists,**  
75 Church Street, Toronto, Ontario

## Broxwood Herefords

Cows, heifers and calves

For Sale.

R. J. PENHALL, Nover, Ont.

## The Sunnyside Herefords.



To make room for my new importation, I will sell four cows with heifer calves by side, two yearling heifers, one yearling bull and two bull calves at a 20% reduction if taken in the next 30 days. The best of breeding and individual merit. Herd is headed by a son of the grand champion, Prime Lad. Address: M. H. O'NEIL, Southgate, Ont.

**FOREST VIEW FARM HEREFORDS**  
Four bulls from 8 to 19 months old; prizewinners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale.  
**JOHN A. SOVENLOOK,**  
Forest Stn. and P. O.

## Aberdeen - Angus Cattle

FOR SALE!

Young bulls, also females of various ages. Good, growthy, quick feeding animals, of excellent breeding and type. Come and see them or address: W. M. ISCOE, P. O. and G. T. R. Stn., Sebringville, Ont.

## Aberdeen - Angus Cattle.

If you want anything in this line, write or come and see them at Elm Park, Guelph.

James Bowman, Guelph, Ont.

## Shorthorns & Leicesters

For sale: Young bulls and heifers by Imp. sires, and from grand milking cows. Leicesters—A choice lot of shearing rams and ewes, also ram and ewe lambs of the finest type and breeding. And a few extra good Berkshire boars. All for sale at reasonable prices.

W. A. Douglas,

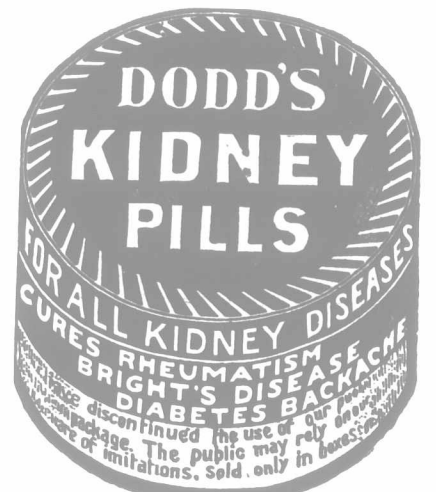
Caledonia Station, Tuscarora P. O.



**ROCK SALT** for horses and cattle, in ton and car lots.

TORONTO SALT WORKS, TORONTO

Visitor: "Well, Harold, what are you going to be when you grow up?" Harold: "Oh, I'm going to be a Sailor; but Baby's only going to be just an ordinary Father."

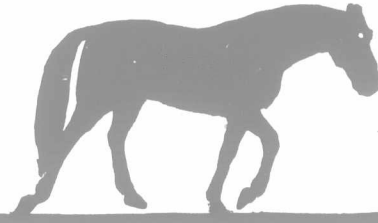


**DODD'S KIDNEY PILLS**  
FOR ALL KIDNEY DISEASES  
CURES RHEUMATISM, BRIGHT'S DISEASE, DIABETES, BACKACHE, GRAVEL, NEURALGIA, MIGRAINE, HEADACHE, AND ALL AFFECTIONS OF THE URINARY TRACT.  
This medicine is sold in all countries. The public may rely on its purity and efficacy. Sold only in bottles.

FAIR DATES FOR 1907.

Table listing fair dates for 1907 across various Canadian locations including Toronto, London, Ottawa, and various Ontario towns.

Table listing fair dates for 1907 across various Ontario towns including Abingdon, Almonte, Alliston, and others.



Where all else fails USE Kendall's Spavin Cure

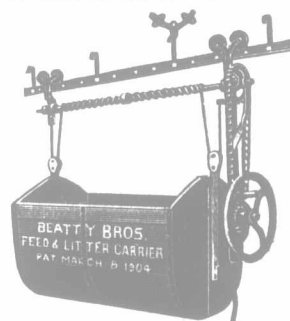
Bone Spavin, Ringbone, Splint, Blood and Bog Spavin, Thoroughpin, Curb, Capped Hock, especially if of long standing and obstinate—will not yield to ordinary liniments or blisters.

KENDALL'S SPAVIN CURE is an extraordinary remedy that gives extraordinary results. It cures old, stubborn cases that many times veterinarians have given up—takes away every sign of lameness—does not scar or kill the hair—and leaves the horse sound and smooth.

Scotch Shorthorns

We believe we have the heaviest milking strains of Scotch Shorthorns alive. Exceedingly choice individuals. For sale are a few young bulls and a few heifers, got by Imp. Royal Bruce, a Bruce Mayflower, and a show bull. A rare good lot of youngsters. R. J. DOYLE, Box 464, OWEN SOUND, ONT.

A Labor Saver Six Months a Year!



NOTE The Double Purchase makes the Beatty Carrier lift with half the power. The Beatty will tip to either side to discharge. The box is made of heavy galvanized steel, and carries higher than any other. Write for information.

BEATTY BROS., FERGUS, ONT.

J. WATT & SON

OFFERS FOR SALE 1 two-year-old show bull from imp. sire and dam. 1 senior show bull calf from imp. dam. 2 senior show yearling heifers, one from imp. sire and one from imp. dam.

J. BRYDONE,

Breeder of pure Scotch Shorthorns. Breeding females imported. Headed by the pure Oriskany (Duthie-bred) bull, Sittytion Victor (Imp.) - 50098 - (87907). Young stock from imp. dams for sale from imp. dams for sale.

Shorthorns, Clydesdales and Shropshires.

In Shorthorns we have 100 head to select from of both sexes and all ages. No fancy prices asked. Several choice young Clyde mares and fillies. 75 Shrop. lambs of both sexes. Small profits and quick returns is our motto.

SUNNYSIDE STOCK FARM

Bulls in service: Queenston Archer = 48398, Trout Creek Stamp = 57690. A number of first-class young bulls, red and roan, and a few cows and heifers, for sale. Prices right.

Valley Home Shorthorns

Bulls, from 10 to 16 months old; 8 fine young cows, in calf and calves at foot; 8 two-year-old heifers, in calf to Royal Diamond 2nd = 58469; and 6 yearling heifers, 40 Berkshires of both sexes, and Shropshire Ram Lambs.

Glen Gow Shorthorns

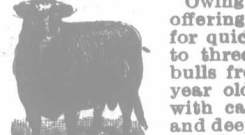
Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman and Imp. Joy of Morning, and out of imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance phone.

1 BULL



16 months old, sired by Royal Bruce, imported; 2 10 months old, sired by Lord Lieutenant, imported; cows and heifers imported and home-bred. All at reasonable prices. SCOTT BROS., Highgate, Ont.

CEDARDALE SHORTHORNS



Owing to scarcity of feed, am offering at specially low figures for quick sale: 17 heifers, one to three years old. 4 young bulls from six months to one year old 16 cows, in calf or with calf at foot. Both beef and deep-milking strains. T. S. Sprouts, M.P., Markdale, Ont.

FOR SALE

8 SCOTCH SHORTHORN BULLS

Aged 6 to 14 months. Marr Beautys, Campbell Charvis, Bessies, Glaras and Rosebuds, got by the Broadhocks bull, Broadhocks Prince (Imp.) 55008. Also cows and heifers in calf or with calves at foot or being bred to same bull. Prices lowest and terms easy.

DAVID MILNE, Ethel, Ont.

MAPLE HILL STOCK FARM—High-class Scotch Shorthorns. Herd headed by Rose Victor = 64885 and Victor of Maple Hill = 65460, both sons of the Duthie-bred bull, Sittytion Victor (Imp.) = 50098, and from richly-bred imported cows. W. R. Elliott & Sons, Box 428, Suelph.

Scotch Shorthorns

A grand pair of yearling bulls, also a few heifers, bred from imp. sire and dams. Pure Scotch and fashionably pedigreed. Will be sold right. C. RANKIN & SONS, Wyebridge P. O., Wyevale Station.

SCOTCH COLLIE PUPS

of best strains of breeding. Easily trained and well marked. Now ready for shipping. Price \$5.00 f.o.b. Picks for \$7.00. Write at once. J. K. HUX, R. & Sney, Ont.

YOUNG SHORTHORN BULLS!

Am now offering 3 grand ones from Scottish Foot (Imp.). Will make show animals. Also Leicester sheep. A number of young breeding ewes to sell. JAS. SNELL, Clinton, Ont.

High-class Shorthorns

Royal Chief, a son of Mildred's Royal, at head of herd. We are offering a few choice heifers of show-rising form. Pure Book 1. Terms reasonable. A. DUNCAN & SONS, Carleton, Ont.

Maple Leaf Shorthorns

Chancellor's Model now heads the herd, which contains Crinson Flower, Lady Fanny, Miss Ramesden, Rosemary, Matchless, Diamond, and Imp. Bessie Wenlock. Now offering a lot of choice calves, both sexes. Israel Groll, Alma Ont.

Arlington Shorthorns and Leicesters.

Present offering: A few females of different ages, some from imp. sires. No sheep for sale at present. Stock guaranteed as represented. JOHN LISHMAN, Hagersville P. O. & Stn.

FOR SALE.—Two choice sound year-old

Clydesdale fillies, one registered (12643). W. J. CAMPBELL, Snelgrove, Ont. Hampshire Down sheep sales and lettings in England this season have been very successful. On Aug. 7th, at the annual letting of ram lambs for the season, four were let for £20 10s. each. At the Winterbourne sale, on Aug. 2nd, eight ram lambs were let for an average of £30 4s., one being let for 66 guineas (£345). The average of 74 lambs sold and let was £14 15s.

(Continued on next page.)

**Maple Shade** **Shorthorns & Shropshires**  
 One yearling Lavender bull for sale. Younger bulls growing. All shearing rams and ewes sold. Will sell a few good ram lambs.  
**JOHN DRYDEN & SON, Brooklin, Ont.**  
 Stations: Brooklin, G. T. R.; Myrtle, C. P. R.  
 Long-distance telephone.

**Pure Scotch Shorthorns**

We are offering 10 young bulls, fit for service, all from imported sires and dams, among them some choice herd bulls. Cows and heifers of all ages, including some excellent show heifers. One imported Clydesdale mare, four years old, with an extra good foal at her side. Young Yorkshires of both sexes. Long-distance telephone.  
**W. G. PETTIT & SONS, Freeman, Ont., Burlington Jct. Stn.**

**Shorthorns!**  
**BELMAR PARC.**  
 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 calf to these bulls.  
 An unsurpassed lot of yearling heifers.  
**John Douglas, Manager. Peter White, Pembroke, Ont.**



**Special Offering of Scotch SHORTHORN BULLS**

3 just past two years old; 15 just over one year old; 7 just under one year old.  
 The best lot we ever had to offer in individuality and breeding, and prices are right. Catalogue.  
**John Clancy, Manager. H. CARGILL & SON, Cargill, Ont.**

**QUEENSTON HEIGHTS SHORTHORNS**  
 (All Scotch.) **Hudson Usher, Queenston, Ont.**  
 Farm three miles north of Niagara Falls.  
 The thick-fleshed, early-maturing sort. Special prices on young stock, either sex. Ask for catalogue with sample pedigrees.

**Elm Park Scotch Shorthorns**

Special offering: Stook bull, British Flag (imp.) (50016)—sure and active and a grand sire; cows with calves and bred again; also heifers and young bulls, sired by British Flag and Hot Scotch. A choice lot.  
**JOHN M. BECKTON, GLENCOE, ONTARIO.**  
 G. T. R., C. P. R. and Wabash. Farm adjoins town limits.  
 Visitors met by appointment.

**JOHN LEE & SONS, Highgate, Ont.**



**SHORTHORNS & LINCOLN**  
 The champion herd of High Kent and Essex counties.  
 For Sale: 6 choice young bulls 3 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

**Clover Lea Stock Farm SCOTCH SHORTHORNS**

Superior breeding and individual excellence  
 For sale: Bulls and heifers—reds and roans, some from imp. sire and dam. Visitors met at Ripley station, G. T. R.

**R. H. REID, PINE RIVER, ONTARIO.**

**Spring Valley Shorthorns**

Bulls in service are: Bapton Chancellor (imp.) = 40359 = (78286), Clipper Chief (imp.) = 64230 =.  
 Stock for sale at all times.

**WYLE BROS., Ayr, Ontario.**

**John Gardhouse & Sons**  
 Importers and breeders of Scotch Shorthorn cattle, Shire and Clydesdale horses, and Lincoln sheep. Call and see us.  
 Highfield P. O., Weston Station 3 1/2 Miles. Telephone.

**MAPLE GROVE SHORTHORNS**

Scotch and dairy bred; up-to-date in type; prize-winners at the local shows. A number of 1 and year old heifers 1 year old bull, and one 5 mos. old—the last will make a show bull. Flora bred—will be sold easy. **L. B. POWELL, Wallenstein P. O. and Stn. G. P. R.**

**Fletcher Shorthorns and Yorkshires**

I have decided to offer for sale my best stock bull, (imp.) "Joy of Morning" (78286) also a choice lot of young heifers and bull calves. In Yorkshires, a choice lot of young sires. Also an imported hog; also boars ready for service, all direct from imported stock. **GEORGE D. FLETCHER, Binkham P. O., Brockton, Ont.**

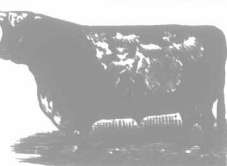
**SHORTHORNS**

One roan Shorthorn bull, 3 years old, highly bred, quiet to handle; a bargain. Cows and heifers all ages. Also a number of **Chester White** sows that will weigh from 100 to 150 lbs each. No fancy prices.  
**D. ALLAN BLACK, Kingston, Ont.**

**SHORTHORNS AND LINCOLN SHEEP.**

Two bulls, 11 and 19 months old—a Miss Ramsden and a Bessie, both by the good breeding bull, Proud Gift = 50077 = (imp.), also cows and heifers in calf by him. Inspection solicited. Always have some choice Lincoln sheep for sale at reasonable prices.  
**J. T. GIBSON, DENFIELD, ONTARIO.**

**T. DOUGLAS & SONS STRATHROY, ONT.**



Breeders of Shorthorns and Clydesdales. 15 bulls, 66 cows and heifers, 1 imp. stallion, imp. and home-bred allies. Write us what you want or come and see our stock. Farm 1 mile north of town.

**Maple Lodge Stock Farm 1854-1907.**

Am now offering a grand lot of young **Shorthorn Bulls**, several from choice milking strains. Also a few extra good heifers.

**A. W. SMITH, MAPLE LODGE, ONT.**

**Maple Grove Shorthorns**



Herd headed by the grand show bull, Starry Morning. Present offering: Imported and home-bred cows and heifers, also a few young bulls. Terms and prices to suit the times. **C. D. WAGER, Enterprise Stn. and P. O. Addington Co.**

Thorold	Oct. 8, 9
Thorndale	Oct. 1
Tillsonburg	Oct. 1, 2
Tiverton	Oct. 1
Tweed	Oct. 2
Utterson	Oct. 1, 2
Underwood	Oct. 8
Vankleek Hill	Sept. 13, 14
Watford	Sept. 25, 26
Waterford	Oct. 3
Walkerton	Sept. 19, 20
Warkworth	Oct. 3, 4
Wallaceburg	Oct. 3, 4
Wallacetown	Sept. 26, 27
Waterdown	Oct. 1
Wellesley	Sept. 23, 24
Western Fair, London	Sept. 6 to 14
Wellandport	Oct. 10, 11
Welland	Oct. 1, 2
Williamstown	Sept. 25, 26
Windham Centre	Oct. 8
Wingham	Sept. 26, 27
Winchester	Sept. 5, 6
Warton	Sept. 25, 26
Woodstock	Sept. 18, 19, 20
Wooler	Sept. 18
Wyoming	Sept. 27, 28

**TRADE TOPIC.**

Jamestown, Va., Aug. 20th.—An apparatus that shows how one man and two horses can do the work formerly requiring five men and ten horses, and do it better, is a prominent feature of the International Harvester Company's exhibit in the States building at the Exposition here. It is examined critically by the hundreds of farmers who come here from all parts of the country, and the verdict of approval is unanimous.

It is in solving the problem of fertilizing the soil that this invention comes into play. The farmer ever seeks to make two blades of grass or two ears of corn grow where one grew before, and here the question of labor often becomes acute. His land must be fitted to do two things: it must furnish a home for the plant, where its roots can take hold, and it must provide nourishment for the growth and fruition of the plant. For the latter purpose, especially, the farmer must aid nature by a supply of fertilizer.

There are all sorts of fertilizers, natural and manufactured, but that upon which the greatest reliance is placed and from which the most desired results are obtained, is barnyard manure. The common way of applying this is to load it upon a wagon, haul it to the field, and scatter it upon the surface with pitchforks wielded by hand. This process is slow and laborious. It requires severe physical exertion, and when the laborer is careless or shirks, the result is inadequate.

Now the Harvester Company shows to the farmer a conveyance—like an ordinary Concord wagon in general appearance, which, loaded like the wagon, and like it hauled to the field, automatically dissects and tears the load of manure, then scatters it evenly over a radius equal to that of the hand-wielded pitchfork till the last fragment of the load is disposed of. This, while the horses are kept at a brisk walk, the driver sitting still upon his seat and manipulating a lever or two as the exigencies of his course may require.

The load scattered, he returns to the yard for another, and the process is repeated. It is asserted that one spreader will distribute in a day fully five times as much fertilizer as can be done by the wagon unloaded by hand.

There is a 6,000-acre farm in North Dakota where ten of these spreaders are kept busy in seeding time. This is a striking recognition of the machine's value where large areas are cultivated.

Simplicity controls in the design and operation of the apparatus. A single lever controls the mechanism, a vibrating rake levels the load, a cylinder with long, square teeth pulverizes the material. The distribution is done by an endless apron. A large sprocket on the rear axle furnishes power to a heavy drive chain that turns the cylinder and operates the apron. The sprocket is controlled by a clutch, operated by a lever close to the driver's hand. The apron drive feed is always under easy control of the driver, who can at will regulate the quantity distributed. A bright boy who can drive the team can operate the spreader as well as a man. The spreaders are equipped at will with hitches for two, three or four horses.

**The Guided Practice of Life.**

A good example of the rapt, breezy fluency of the West was the speech of President Benjamin De Wheeler, of the University of California, at the semicentennial celebration of the Michigan Agricultural College. President Wheeler is described as one of the biggest men in the educational world in the United States, and is particularly well known in the West and Middle West. He said, in part:

"California sends greeting to Michigan. The orange makes obeisance to the yellow-tasseled corn. The valleys that mediate between the Sierras and the great ocean reach forth their hands to the prairies that hold the balance between the lakes and the waters which seek the gulf. The College of Agriculture at Berkeley salutes its elder brother, who, as pioneer, opened for it the first paths and cut the brush. We learned both from your gropings and your findings, and we thank you for both. We know with you what it means to labor on the frontier, and we share with you the blessed Western experience of trying and risking in a virgin field whereby to irritate and teach the self-satisfied composure of the East."

**STILL THE FRONTIER.**

"In 1857 Michigan was, in things cultural, still the frontier, and the establishment here of agricultural education handed back a frebrand into the complacent usage of the East. To speak of torches tied to foxes' tails and sent into the standing grain of the Philistines is only an agricultural figure of speech, and incompetent to express the trouble and the germs of trouble thereby infused into the entire circulatory system of all American education. The agricultural colleges and the State universities, which in many States have included the colleges and have been infected by their spirit, are a distinctive product of the West, and have embodied a fresh and vitally new idea of education, and what it is all about."

"Centuries of separation from the life-need that begat it had made the mechanism of education largely a formal instrument of discipline. The significance of the agricultural college for the whole trend of American education was its native effrontery in frankly seeking for life-training a new connection with real life-use, and this significance exceeds, in service to the nation, even the weight of the benefits wrought for the tilling and the tiller of the soil."

**THAT MEN MAY LIVE.**

"Within the fifty years that have followed upon the beginning of your Michigan experiment, and under the quickening influence of your venture and others that succeeded it, the whole nation of teachers has been assuming a new conception of the whole meaning of their task. They now seem to be learning that education inheres not in what you put into a man or what you hang on to a man, nor yet in sterilizing him or shaving him down to a standard shape; but in giving him, such as he is, and such as his life activities may be, the opportunity in and through those activities, of living his life fully and effectively and abundantly. Such education will, therefore, address itself perforce to the real doings and exercises of real life, and its definition will be: The guided practice of life, to the end that men may live."

"Small matter, indeed, was this school for farmer boys at Lansing in 1857, a weird undertaking, though, and audacious, not prescribed in the books, unapproved of the elders, but behold, the stone which the builders rejected, it has become the head of the corner."

Mr. John M. Beckton, Glencoe, Ont., who advertises in this paper, writes:

"The imported Shorthorn bull, British Flag (50016), I am offering, is five years old, sure and active. He was bred by A. Campbell, Deystone, Kintore, Scotland, sired by Golden Fame (76786), by Lord of Fame, bred by Wm. Duthie. He has proved himself a good sire, and I am only selling on account of his heifers coming of breeding age. The cows and heifers offered are a good lot, and by such sires as Chief of Stars (imp.) (32054), Ivanhoe (17645), Prince Roy (13652), Palermo (imp.), British Flag and Hot Scotch (champion at London). Any or all of these will be priced right for quick sale, and correspondence or inspection of the herd solicited."

**Clean Skimming Means Good Living**

The hog trough is no place to put butter. Wide awake farmers want the cream separator that skims the cleanest. It means more profit—better living. That separator is the Sharples Dairy Tubular—the separator that's different. Sharples Dairy Tubulars have twice the skimming force of any other



separators—skim twice as clean. Prof. J. L. Thomas, instructor in dairying at the agricultural college of one of the greatest states in the Union, says: "I have just completed a test of your separator. The skimming is the closest I have ever seen—just a trace of fat. I believe the loss to be no greater than one thousandth of one percent."

That is one reason why you should insist upon having the Tubular. Tubulars are different, in every way, from other separators, and every difference is to your advantage. Write for catalog S-103 and valuable free book, "Business Dairying."

**The Sharples Separator Co.,**  
West Chester, Pa.  
Toronto, Can. Chicago, Ill.

**SHORTHORNS**

Six superior yearling bulls, some of them out of great milk cows; heifers of all ages. A lot of very big yearlings and a few heifer calves cheap.

**CLYDESDALES**

Two mares 5 years old, one an extra good one, and a pair of geldings 4 years old.

**JAS. McARTHUR, Gobles, Ont.**

**Pleasant Valley Shorthorns**

Herd headed by Imp. Ben Lomond =45180=, assisted by Bud's Emblem, 2nd-prize senior bull at Toronto, 1906, son of Old Lancaster 50068. Correspondence solicited. Inspection invited.

**GEO. AMOS & SON, Moffat Sta. & P.O., C.P.R.**  
Farm 11 miles east of City of Guelph.

**DOMINION SHORTHORN HERDBOOK WANTED.**

The Dominion Shorthorn Breeders' Association will pay \$1 each for the following volumes of their herdbooks: Volumes 8, 9, 12, 13, 14, 15, 16, 17 and 19. Parties having these volumes to part with, write for wrappers and mailing instructions to

**W. G. Pettit, Sec.-Treas., Freeman, Ont.**

**GREENGILL HERD of high-class SHORTHORNS**

We offer for sale 8 young bulls, a number of them from imp. sire and dam; also females with calf at foot or bred to our noted herd bull, Imp. Lord Roseberry.

**R. MITCHELL & SONS,**  
Molson P.O., Ont.; Burlington Junc. Sta.

**Shorthorns, Cotswolds, Berkshires**

On hand: two yearling bulls and a nuber under one year, also females of all ages. In Cotswolds, about 30 lambs. Have also a few young Berkshire boars

**CHAS. E. BONNYCASTLE,**  
P. O. and Station, Campbellford, Ont.

**WILLOWBANK SHORTHORN HERD**

ESTABLISHED 51 YEARS. FOR SALE: Young bulls and heifers from imp. sires and dams, of most fashionable breeding and type; exceedingly choice. Prices to suit the times.

**JAMES DOUGLAS,**  
Caledonia P.O. and Sta.

**Scotch Shorthorns** Claretts, English Ladys, Mildreds, Nonpareils. Present offerings by Springhurst 44864 and Mildred's Royal. Prices moderate. **F. W. EWING,** Salem P.O., Elora Station.

**QUESTIONS AND ANSWERS. Miscellaneous.**

**CRATE FATTENING—COCKEREL MANAGEMENT.**

1. Is one part corn meal to two parts sifted oatmeal (by bulk), mixed with skim milk, a good ration for fattening chickens in crates?
2. Should cockerels, intended to be kept for breeding purposes, be shut up or allowed to run with the hens and pullets?
3. If they were penned up, what should they be fed? Also, should they be put in large or small pens, separately or together?

W. S. M.

Ans.—1. Yes; finely-ground oats will make the finest white flesh, but the chicks often prefer a mixed feed, and they are fond of corn. Too much corn, however, will produce a yellow flesh, but your mixture will be very satisfactory.

2. The hens and pullets are better away from the cockerels; but if you couldn't give the cockerels a good run, it would be better to let them run with the flock. Don't confine young stock intended for breeding.

3. They will do with much the same as the rest of the flock. Oats are very good as a grain.

F. C. E.

**LINE FENCING—PEDIGREE OF PIGS.**

1. A owns east half of lot, B north half of west half, C the south. The Grand River runs between these two quarters, also through east half. A has a mixed stock, and resides on the lot. B has grain in part of his, and pastures the balance; while C, whose half is rough land, but nearly all cleared, runs cattle on his. It has been the custom for A to build fence across the river, C paying him for his half. This year, however, it has been reversed, and C has put a few strands of barbed wire on to turn the cattle, but it will not keep out A's pigs, which go through the fence, and then have a chance to go on both B's and C's land; but, as B has grain on his place, the pigs do him the most damage. A notifies C to repair fence, and C, who does not reside on his lot, comes up and puts in a half dozen staples to hold wire, and then tells A he has it repaired so that they could not get through; and then he goes to B and tells him that his fence will turn cattle all right, and if A's pigs get in, he (C) is not obliged to fence to keep out pigs, and B can look to A for damages. Is this correct, when, if this fence was kept in repair the pigs could not get in, but would pasture in A's bush?

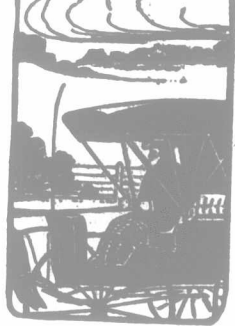
2. If the deeds of B and C read: the land lying north and south of the river, could they make A fence river, as neither owns land on the opposite bank, or could they compel A to build fence without their aid?

3. In the early spring I bought a pig (sow) from a breeder, he, in his description, stating that sows were sired by a noted show boar, and also from a prize-winning sow, giving, in his description, the name of boar. Lately, I received pedigree of sow, but found that, according to same, she was sired by a different boar than was named in description. I immediately wrote for an explanation, and the breeder wrote that the sow's breeding was given correctly enough, as he paid five dollars for service, but, later, when the man who owned the boar could not buy the boar pigs back at his own price, he refused to fill out certificate of service to this boar, and filled it out to another boar he had, not as noted a prizewinner, nor as good a boar, which breeder No. 1 accepted and registered his stock as given above, which pedigree I have, and which is not correct nor worth the paper it is printed on. I, in my turn, before I received the registered pedigree, described the breeding of sow and her litter, and have sold some of her pigs, before I knew of this tangle. As a result, party is holding money till furnished with pedigree, which I cannot give. Give instructions as to what I should do.

FARMER.

- Ans.—1. No.
2. No.
3. You ought first to take return of the pigs you sold, and then make return of sow to the breeder, and demand a refund of the money you paid him, following such demand up, if necessary, by suit in the Division Court.

**Tudhope Carriages**



hold their good looks, just as they hold their strength. A special feature is made of the painting and finishing. And Tudhopes retain their gloss—look new—when other makes, bought at the same time, have lost their pristine brightness.

**TUDHOPE No. 45**

is one of the easiest carriages we make. It's built especially for the man who uses his buggy constantly—and besides making riding a pleasure—stands hard driving and rough roads. Supplied with rubber tires if desired.

Our free catalogue tells all about it. Write for a copy.

**THE TUDHOPE CARRIAGE CO., Limited** ORELLIA, Ont.

**DUNROBIN STOCK FARM** Clydesdales, YORKSHIRES, Shorthorns. We are booking orders for breeding stock from our grandly-bred Yorkshire sows. Twenty five sows to farrow in the next few weeks. Unrelated pairs a speciality. Write for prices and particulars. **DONALD GUNN & SON, Beaverton, Ontario.** Inspection invited. G. T. R., C. N. O. R. stations 1 1/2 miles from farm. Customers met on notification.

**KENWOOD STOCK FARM SHORTHORNS**

Offers for sale an 18-months-old Miss Ramsden bull of show quality from Imp. Jilt Victor =45187=, a Toronto winner, and Imp. Pandora =48456=, a Toronto winner and an Old Country junior champion. Four other younger bulls. Also cows and heifers imp. and home bred. Prices easy. Trains met on notice. **HAINING BROS., Highgate, Ont., Kent Co.**

**A. EDWARD MEYER, Box 378, Guelph, Ont.,**

Breeds **SCOTCH SHORTHORNS** of the following families: Cruickshank Bellons, Mysies, Brawith Buds, Villages, Broadhooks, Campbell Claretts, Minas, Urys, Bessies, Bruce Mayflowers, Augustas, Marr Missies and Lovelaces, and others. Herd bulls: Scottish Hero (imp.) =55048= (80065), Sibbyton Lad =67314=. Correspondence solicited. Visitors welcome. Long-distance 'phone in house.

**Brown Lee Shorthorns!** Nonpareil Victor =63307= at head of herd. Young stock for sale at all times. Prices very reasonable. Avr. C. P. R.; Drumbo, G. T. R. **DOUGLAS BROWN, Avr. Ont.**

**Glenoro Shorthorns & Lincolns**

Imp. Marr Roan Ladys, Missies, Urys, and Miss Ramsdens. High-class in breeding and individuality. Eight grand young bulls coming on. Herd headed by the great breeding bull, Nonpareil Count. Some choice young cows and heifers for sale. 150 head of Dudding-bred Lincolns. Ewes all ages for sale; also 40 ram lambs from imported stock.

**A. D. McGUGAN, Rodney, Ont.**

**Brampton Jerseys!**

Select your stock bull or family cow from Canada's most famous and largest Jersey herd.

**B. H. BULL & SON, BRAMPTON, CANADA.**

**High Grove Jerseys** 2 choice young bulls for sale, 10 months; would serve now. Bred in the purple. Could also spare a few females either young or old. **Robt. Tufts & Son, Tweed, Ont.**

**Porter's Golden Fawn St. Lambert and Golden Lad JERSEY HERD.**

I AM now breeding the two most popular and productive families of the Jersey breed known—the St. Lambert and Golden Lad. And what is more, my foundation stock of both families was purchased from the two most noted and best breeders of Jerseys on the continent: The St. L.'s from the late Wm. Rolph, of "Glen Rouge"; and the Golden Lads from T. S. Cooper, Linden Grove, U.S.A. My Golden Lads are headed by Blue Bell's Fox of Linden Grove—a grandson of Mr. T. S. Cooper's high-priced cow, Blue Bell, which was sold at his 1904 sale for \$3,500. I have a few animals of both sexes for sale.

**R. R. Station, Toronto Junction, G. T. R. & C. P. R. THOMPSON PORTER, Carleton West, Ont.**

**SPRINGHILL AYRSHIRES. LAST IMPORTATION OF 45 HEAD**

Arrived home, and we now have a selection that cannot be excelled of cows and heifers, all ages, fifteen due to freshen in August and September. Bargains in bull and heifer calves, most of them imported or imp.-in dam. Oldest bull 12 months (imp.). Everything for sale at reasonable prices.

**ROBT. HUNTER & SONS, Maxville, Ont.**  
Long-distance 'Phone, Maxville 33.

**AYRSHIRES.**

All being well, we will again be exhibiting quite a large herd of imported and home-bred animals of **Chelcote Dairy Breeding** at all the leading shows, Toronto, Ottawa and Sherbrooke. Several young bull calves from imported dams and sires. Any of the herd for sale. We will also be booking orders for imported stock for 1908.

**ALEX. HUME & CO., MENIE, ONT.**  
'Phone Campbellford.

**SHANNON BANK STOCK FARM FOR AYRSHIRES AND YORKSHIRES**

Young stock of both sexes for sale from imported stock.

**W. H. TRAN, Cedar Grove, Ont.**

**AYRSHIRES FROM A PRIZEWINNING HERD**

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON, Campbellford Sta. Menie P.O., Ont.**

**STOCK FOR SALE**—At Springburn Stock Farm, Williamsburg, Ont. 51-year-old Ayrshire bulls. Females any age 12 Oxford Down ram lambs and a number of young ewes. Prices reasonable.

**H. J. WHITTEKER & SONS, Prods.**

**SPRINGBROOK AYRSHIRES**

Produced 7,000 lbs. of milk each, testing 3.9% butter-fat, in 1906. Two choice young bulls dropped in August, 1906, and several calves of 1907 for sale. **W. F. STEPHEN, Box 163, Huntingdon, Que.**

**Advertise in The Farmer's Advocate and Get Good Results**

**AYRSHIRES** Young bulls from producing dams and same sire, from 7 months up to 2 years. Rare good ones and will speak for themselves. **N. DYMENT, Hickory Hill Stock Farm, Clappan, Ont. Dundas Station and Telegraph.**

**Greenwood Holsteins & Yorkshires**

For sale: Two richly-bred bulls ready for service. No females to offer at present. Choice Yorkshires of either sex.

**D. Jones, Jr., Caledonia P. O. and Sta.**

**Grove Hill Holstein Herd**

Offers high-class stock at reasonable prices. Only a few youngsters left. Pairs not akin.

**F. R. MALLORY, Frankford, Ontario.**  
G. T. R. and C. O. Railway connections

**SPRING BROOK HOLSTEINS & TAMWORTHS**

Have just decided to reduce my herd of Holsteins, and am offering 10 choice females of different ages, of rich breeding and high quality. Also 2 bulls 12 mos. old. Will make winners. Tamworths of different ages to offer. Come and see them. Dcn't depend only on writing. Notify when coming. **A. O. HALLMAN, Breslau, Waterloo Co., Ont.**

**QUEEN CITY HOLSTEINS**

If you would like to purchase a young Holstein bull whose sire's dam has an official record of 500 pounds of milk and 95 pounds of butter in seven days, write to **E. F. HICKS, Newton Brook P.O., York Co.**

## ANNANDALE FINE STOCK FARM

TILLSONBURG, ONT.

Premier sire, Prince Posch Calamity, whose dam and sire's dam average in official test 86 lbs. milk in 1 day and 26 lbs. butter in 7 days.

No stock for sale at present.

GEO. RICE, Tillsonburg, Ont.

**FAIRVIEW HERD** is the place to buy your next bull. I can furnish you with a bull sired by our great herd bull, PONTIAC KORNDYKE, who has 19 daughters in the last year's report that made official records from 12 pounds at less than two years old to over 31½ pounds at four years, and the whole number averaged over 41% fat. No other bull in the world has ever made such a showing in one year. I have just tested another of his daughters that made 26.40 pounds butter in seven days with second calf. I have over 50 cows and heifers in calf to him. Come and look my herd over before making your selections elsewhere. E. H. Debar, Hevelton, St. Law. Co., N. Y., near Prescott.

## Lyndale Holsteins

Bull calves for sale out of cows with records of from 18 to 20 lbs., and sired by a grandson of Pieterje Hengerveld's Count De Kol.

BROWN BROS., LYN, ONTARIO.

## Imperial Holsteins

Bull calves for sale.

W. H. SIMMONS, New Durham P. O., Ont.

## "GLENARCHY" HOLSTEINS

43 head of big, deep-flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Have only bull calves for sale now. A straight, smooth lot.

G. MAGINTYRE, Renfrew P. O. and Str.

## Holsteins and Yorkshires

R. HONEY, Brinkley, Ont., offers a very choice lot of young bulls, also boars and sows fit to mate.

**Shropshires**—Foundation of Mansell, Williams, Linton and Harding breeding. Stock ram of Harding breeding; all this year's lambs, 3 shearling rams, several shearling ewes for sale; show stuff. W. D. MONKMAN, Bond Head P. O., Bradford Sta.

## 71 Years

WITHOUT CHANGE MEANS that in 1836 we made an importation of sheep, that Shorthorns followed very soon, that we have been importing and breeding them ever since, and that this year I have made an importation of **Shorthorns, Shropshires, Clydesdales and Welsh Ponies** as good as could be bought. They, with high-class home-bred ones, are for sale, write me.

ROBERT MILLER, STOUFFVILLE, ONTARIO.

## Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world. G. Howard Davidson, Pres., Millbrook, N. Y. Address correspondence to MORTIMER LEV BRING, Secretary, Lafayette, Indiana.

## Dorset Sheep

different ages, and of the choicest quality, from prize-winning stock, for sale. For prices and particulars apply to

R. H. HARDING,

Mapleview Farm, Thorndale, Ont.

TELEPHONE CONNECTION.

## SHROPSHIRE

Can sell about 20 Ram Lambs. Mostly by an Imp. Buttar-bred ram.

GEO. HINDMARSH, Ailsa Craig, Ont.

## Fairview Shropshires

Orders now booked for shearlings and lambs of both sexes, fitted for showing or field condition. Don't forget that this flock has produced more winners than any other flock in all America and stock sold are producers of winners. J. & D. J. CAMPBELL, Fairview Farm, Woodville Ont.

When Writing Please Mention Advocate

## Oak Park Stock Farm Shropshires

Have just landed with our importation of 152 choicely selected Shropshires from England. A number of prizewinners among them at the Royal, Staffordshire, Shropshire, and other shows. We also purchased a several highest priced rams at the Royal. Show books for sale. A flock leading rams and high class breeding ewes. We have a choice lot of ram heads and ewe lambs from our last year's importation. Our flock will be on exhibition at Toronto Fair, also Detroit, Mich.

OAK PARK STOCK FARM CO., LTD., Brantford, Ont.

T. A. COX, MANAGER.

## HOLSTEINS



We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls—100 head to select from. Imported Pontiac Hermes, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented. H. E. GEORGE, Grafton, Ont. Putnam station, near Ingersoll.

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. H. E. GEORGE, Grafton, Ont. Putnam station, near Ingersoll.

## RECORD OF MERIT HOLSTEINS



Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richest-bred bulls in Canada at head of the herd. For sale: 18 bulls, from 2 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

P. D. EDM, Oxford Centre P. O. Woodstock Station.

## Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices.

G. W. Clemons, St. George, Ont.

## "THE MAPLES" HOLSTEIN HERD

is made up of Record of Merit cows and heifers with large records, and headed by Lord Wayne Meathilde Calamity. Bull calves from one to five months old for sale.

Walburn Rivers, Falden's, Ont.

## SPRINGBANK OXFORDS.

A number of select yearling rams by Hobbs' Royal winner for flock headers. Lambs of both sexes. Also one aged ram, first at Ottawa, 1906. Prices right.

WM. BARNET, LIVING SPRINGS P. O. Fergus, G. T. R. and C. P. R.

## Shropshires and Cotswolds

I am now offering 35 shearling rams and 50 shearling ewes, also an extra good lot of ram and ewe lambs from imported Minton ewes and Buttar ram.

JOHN MILLER,

Brougham P. O. Claremont Stn., C. P. R.

## GOSSIP.

### CONCORD BERKSHIRES.

Probably the oldest-established Berkshire herd in Canada, one that has been in continuous existence over 40 years, and has bred more prizewinners than any other one herd in Canada, is the property of the well-known veteran breeder and expert judge of swine, Mr. Thos. Teasdale, Concord P. O., Ont. The farm is close to Thornhill Station (G. T. R.), and only 14 miles from Toronto. The main stock boar is Dictator 14717, by the Toronto champion, Imp. King of the Castle, dam Leading Lady. This great hog, massive, smooth and even, weighing 800 lbs., was shown seven times, and won seven first prizes, including Toronto. Among the several choice brood sows, nearly all of which are the get of Imp. Perfection, are sows that have never taken a second place, having as many as six first prizes to their credit, among them being the smooth-quality sow, Imp. Durham's Fancy, and some of her daughters. For sale are about 40 youngsters, from four to six months of age, of both sexes; and we are bound to say that they are certainly the best all-around lot we have seen together in many a day, almost every one being a show pig, and nearly all being the get of the old stock boar, certainly one of the best stock-getters in this country. Look up this exhibit at Toronto. Mr. Teasdale has lately arrived home from the Northwest, where he was on a judging tour. While out there, he received several orders for breeding stock, and has shipped Berkshires to Saskatchewan, British Columbia, Manitoba, and South America.

### MARKET FOR CANADIAN EGGS AND OTHER PRODUCE IN SOUTH AFRICA.

It is readily admitted by every one who is conversant with the conditions and requirements of trade in South Africa that a large and important market for agricultural products, animal produce and manufactured goods exists here, writes Mr. John A. Chesley, Canadian Commercial Agent in Cape Town, South Africa. Canadian merchants, farmers, manufacturers and others interested in the export trade of Canada, should assiduously cultivate this market. Although competition for trade here as elsewhere is keen, yet with the excellent reputation maintained, which Canadian products now hold in this market, together with the constant exercise of prudent, systematic and persistent effort by Canadian exporters, should result in a large increase in the export of Canadian products to the British South African colonies.

In commercial circles in Cape Town, the sentiment is somewhat freely expressed in favor of dealing with Great Britain and the British colonies in preference to any other country. This feeling, in so far as it is applicable to Canada, is in a great measure due to the good quality of the Canadian products exported to South Africa, which, in so far as the Canadian representative has been able to learn, have given very general satisfaction.

There is a very active demand there for Canadian eggs, which are appreciated in this market. The present time seems opportune for Canadian dealers to give their attention to the export of this commodity to the South African market. An examination of the trade returns for the year ending December 31st, 1906, shows the value of the eggs imported into Cape Colony for the period named to be £70,129 sterling. Canada stands fourth in the list of countries as to the number of eggs exported to Cape Colony, and the value thereof. There does not appear to be any way of ascertaining the value of this Canadian product (which must be large) imported here through the United Kingdom, as the trade returns of Cape Colony show the country from which the article is imported as the country of origin.

### AUSTRALIAN SHEEP SALES.

The annual sheep show and sheep sales were held about July 1st. Some ten thousand sheep were disposed of, including British breeds and Merinoes. Merinoes, of course, being the leading and profitable line. Where so many sheep were offered, the great majority of them were ordinarily good flock sheep, the prices realized being an average of from £2 to £5 each. Of the British breed, Lincolns, Shropshires and Leicesters were in demand. Lincolns and Leicesters did not bring very high prices, 23 guineas being the highest. There were a number of good sheep amongst them, but few special. Shropshires, particularly those from the flock of Mr. Mansell, of Tasmania, a breeder known to Canadian sheep men, brought £105, £52 10s., £36, and some less. Twelve of them averaged £35 each. From other breeders, seven averaged £15 6s. 7d.; twenty ewes, £14 8s. Though the Merinoes did not reach to quite as high a figure as on some previous occasions, the highest price being 700 guineas as against 1,000 guineas in former years, yet the average was better than in previous years; one salesman declaring it to be the best ever held in Australia. The prices for the best sheep ranged from 100 to 700 guineas. A flock of fifteen brought an average of £181 13s.; a flock of four, £140; a flock of twelve, an average of £138 13s. 9d.; three an average of £81, and ten of £62 19s. 6d. There was a marked change of favor towards plain-bodied sheep as against the wrinkled skins that had held the fashion for some time.

J. S. LARKE.

### RIVER-VALLEY CLYDESDALES AND SHORTHORNS.

About seven miles south of Thornbury Station (G. T. R.), in Grey County, is River-valley Stock Farm, the property of Mr. A. V. Carefoot, one of the leading breeders of pure-bred stock in that county. His specialty is Clydesdale horses and Shorthorn cattle. He is a strong believer in the sensible fact that unless a man is wealthy there is little money for him in having a lot of fancy cattle around him, good only to delight the eye and to slaughter for beef; so, with this idea, when laying a foundation for his Shorthorn herd, he looked for a strain of big, useful animals that would pay for their living at the pail, and tip the scales at a good weight when ready for the butcher. That old-reliable dual-purpose strain, the Wildames, appeared to him to fill the bill, and the result was the purchase of the cow, Miss Tim 26378, by Gladiator 11417, a cow of great scale and carrying an udder that denotes a profitable producer at the pail. From her the present herd originated, the get of Favorite, Loyalist (imp.), Nottawa King, and the late stock bull, Exhibitor 39089, a Starling-bred bull (who is the sire of all the young things), by Campbell Chief 28030. The present stock bull is Fair Shot 55012 (imp. in dam), sired by Chance Shot, dam Susanna (imp.), by Scottish Bard. All the cows are now in calf to him. For sale are females, from six months up; one bull, fifteen months old, a roan, by Midship Mite, and another, six months old. Anything in the herd is for sale.

At the head of the Clydesdales is the well-known stock horse, Valentine (imp.) 39459, by the champion Cairnbrogie Stamp, dam Darling 7th, of the noted J. Marr's Prince of Wales—Darling strain. Valentine is one of the most noted sires in Canada, and has done this country a wealth of good. Another sire in the stud is Baron's Crown [3335] (imp. in dam), by Baron's Model (imp.), a son of Baron's Pride, dam Sally (imp.). This horse is fast leaving a name for himself as a great sire in Grey County. Prominent among the brood mares is Merry's Last (imp.), a brown four-year-old, by Merry Lad, dam by Nobleman. This mare is a grand good one, with size and quality. She has a beautiful filly foal imported in dam, by Baron Buxom, that will certainly take a heap of beating this fall. Another mare is Imp. Priscilla, a brown three-year-old, by Sir Simon, dam by Prince Resemblance. This mare was never beaten in the showing in Scotland, and was up for honors a number of times. She is a big, quality mare, just the kind that is wanted. Both these mares are in foal to Valentine, and are for sale, as is anything on the farm. Write Mr. Carefoot, to Redwing P. O., Ontario.



## South-downs

ROBT. McEWEN,  
Byron, Ont.

Long-distance phone.

## Farnham Farm Oxford Downs

We are now offering a number of select yearling rams and ram lambs, sired by imported ram, for flock headers; also yearling ewes and ewe lambs. Price reasonable.

Henry Arkell & Son, Arkell, Ontario.

Arkell, C. P. R.; Guelph, G. T. R.

## WE WANT YOUR

# WOOL

WRITE OR SHIP

E. T. CARTER & CO., Toronto, Ont.

YORKSHIRES of Choicest Type and Breeding.



I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bess strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin. J. W. BOYLE, P. O. Box 563, Woodstock, Ont.

Elmhurst Berkshires

Motto: "Goods as Represented."

With our recent importation, personally selected from the best herds in England (some of them prizewinners), we have the most select herd of Berkshires in Canada. A grand group of breeding and show matrons. Our new imported boar, Stall Pitts Middy won 1st under 1 year at Oxford, 1907, also Compton Duke, Imp., and Compton Swell, Imp., head the herd. Mail orders receive careful attention. Brantford shipping station. H. M. VANDERLIP, Cainsville P. O., Brant Co., Ont.

FAIRVIEW BERKSHIRES

Bred from imported and Canadian-bred sires and dams, and bred on prizewinning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars. HENRY MASON, SCARBORO P. O. Street cars pass the door.

OAKDALE BERKSHIRES

Largest Berkshire herd in Ontario. Stock boars and several brood sows imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prizewinning lines and true to type. Everything guaranteed as represented. Long distance phone. L. E. MORGAN, Milliken P. O., Co. of York.

ROSEBANK BERKSHIRES

Present offering: Boars fit for service. Sows ready to breed. Choice young stock ready to wean, sired by Maple Lodge Doctor and Sallie's Bambo (imp.), a Toronto winner. Lefroy, G. T. R. JOHN BOYES, JR., Churchill, Ont. Long-distance phone

Maple Leaf Berkshires.

Large English breed. Now offering King of the Castle sows, and Polgate Doctor sows, bred to British Duke (imp.). Also young boars and sows for sale, 10 and 12 weeks old. JOSHUA LAWRENCE, OXFORD CENTRE P. O. BRITISH DUKE (IMP.) WOODSTOCK STATION.

Woodstock Herd of Large English Berkshires

For sale: Boars fit for service. Sows ready to breed. March and April pigs supplied in pairs and trios not akin; bred from my imported and home-bred sows. My pigs are all bred on prizewinning lines, and true to type. Come and see, or write for prices. DOUGLAS THOMSON, Box 1, Woodstock, Ontario. C. P. R. and G. T. R. stations.

Large White Yorkshires

An offering at the present time a number of choice boars and sows of breeding age also some imported sows in pig. Also young pigs of spring farrow direct from imported stock. Pairs and trios supplied not akin. Write for what you want. H. J. Davis, Woodstock, Ont. Breeder of Shorthorns & Yorkshires

Yorkshires and Tamworths

Either breed any age, both sexes; sows bred and ready to breed, Yorkshires bred from imp. sire and dam. Tamworths from Toronto winners. Pairs not akin. As good as the breeds produce. CHAS. CURRIE, Schaw Sta., C. P. R. Morriston P. O.

Duroc Jerseys.

Sows ready to breed. Young pigs, either sex, ready to ship. Canada's Boy (imp.) 1907 heads our herd. MAC CAMPBELL & SON, Harwich, Ont.

IMPROVED LARGE YORKSHIRES

Herd headed by the famous Summer Hill Gladiator 9th and Dalmieny Topman 2nd (imp.), and some imported sows of good breeding and quality. Stock for sale at all times. GEO. M. SMITH, Haysville, Ont. New Hamburg, G. T. R., or Bright on Buffalo & Lake Huron R. R.

NEWCASTLE Herd of Tamworths and Shorthorns

Our present offerings are: A choice lot of sows, the get of Colwill's Choice and Newcastle Warrior, both silver-medal prize boars at Toronto, 1901, 1902, 1904 and 1905, bred to our imported boar Cholderton Golden Secret; also pigs, both sexes, from 2 to 6 mos. old. P. degree furnished with every pig. Several choice bull calves ready for service, and a nice lot of heifers from 6 months to 3 years old, of high quality and breeding. Prices reasonable, quality considered. Daily mail at our door. A. A. COLWILL, Newcastle, Ont. Successor to Colwill Bros.

GOSSIP.

The illustration of the Shorthorn bull, Royal Bruce (imp.) 55038, which appears in this issue, is the property of Mr. R. J. Doyle, of Owen Sound, Ont. He was bred by Robert Bruce, of Heatherwick, Aberdeenshire, Scotland; sired by the Wimple bull, Winning Hope; dam Sunshine, a Bruce Mayflower, by the Buckshank Lovely bull, Sittytton. Yet he is a show bull from the ground up, being a rarely evenly-built bull of the low-down, heavy-fleshed, mellow-handling sort, and as a sire, is fast making a name for himself in the splendid thick, even quality of his get. The illustration does not do him credit, as he has been finishing at pasture all summer, and is somewhat rucked up.

MONKLAND Yorkshires

Imported & Canadian-bred

We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Our supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

JAS. WILSON & SONS, FERGUS, ONT.

G. T. R. and C. P. R. Long-distance Phone

Maple Grove Yorkshires

IMPORTED AND CANADIAN-BRED Boars and sows of the best possible breeding, with lots of size and full of quality, comprise our herd. We have a fine lot of sows and boars ready for service, also both sexes of all ages—younger. We guarantee everything as represented. Prices always reasonable. Write at once. H. S. McDiarmid, Fingal P. O., Shedden Stn.

SUNNYMOUNT BERKSHIRES.

Sunnymount Berkshires are unsurpassed for ideal bacon type and superior breeding. For immediate sale: A few choice boars from 5 mos. up.

JOHN McLEOD Milton P. O. and Sta., C. P. R. & G. T. R.

Fairview Berkshires

Are second to none. My herd has won high honors wherever shown. Am now offering sows bred and ready to breed and younger ones of both sexes, the get of Masterpiece and Just the Thing. An exceptionally choice lot.

JOHN S. COWAN, Donegal P. O., Milverton Stn

Glenburn Herd of Yorkshires.

Winner of gold medal three years in succession. Young boars and sows of different ages. Also a grand good Shorthorn bull (roan) 7 months old, fit to head any herd.

David Barr, Jr., Box 3, Renfrew, Ont.

Mount Pleasant Tamworths and Holsteins.

Herd of For Sale: Pigs of either sexes, from 6 weeks to 7 months; pairs not akin; also bull and heifer calves under 5 months. Phone in residence.

BERTRAM HOSKIN, The Gully P. O.

Elmfield Yorkshires! 40 pigs 2 to 5 mos. Boars ready for service. Sows by S. H. Chester, imp., bred to S. H. Edward 2nd, imp., due about Aug 1st; also sows ready to breed. Pairs not akin. Prices right. G. B. MUMA, Ayr, Ont.

QUESTIONS AND ANSWERS. Veterinary.

BRONCHOCELE.

Horse has a firm swelling about the size of a man's fist in neck, directly behind the jaw. It is not sore, is movable; and does not cause inconvenience.

A. S. D.

Ans.—This is an enlarged thyroid gland, and is called bronchocele, or goitre. It is supposed to be caused by animals drinking water largely impregnated with lime. Some horses appear particularly predisposed to the condition. The glands can generally be reduced to their normal size by the daily application of an ointment made of 2 drams each of iodine and iodide of potassium, mixed with 2 ounces vaseline. If this fails to reduce it, and it grows so large that it causes distress, or inconvenience, an operation by a veterinarian will be necessary. V.

MUD FEVER—CRIBBER.

1. Have had mud fever in my stable for a year. First one and then another is affected.

2. Two-year-old is a cribber.

J. J. E.

Ans.—1. Mud fever is not a disease that exists in stables. Of course, poor ventilation, dampness, etc., predisposes to it. Keep stable clean, dry and well ventilated, and it would be good practice to give a good coat of hot lime wash, with five per cent. carbolic acid. Give the patient a purgative of eight drams aloes and 2 drams ginger. Follow up with 1 1/2 ounces Fowler's solution of arsenic, twice daily every alternate week for six weeks. To the eruptions, apply, three times daily, a lotion made of 2 ounces each sulphate of zinc and acetate of lead, and 1/2 ounce carbolic acid to a quart of water. Do not wash the legs. 2. A tendency to cribbing may be checked by feeding the colt from the floor, removing the manger from his stall. A strap buckled tolerably tight around the neck, close to the head, acts as a preventive of the habit. V.

Miscellaneous.

BINDWEED.

I have a couple of patches of the enclosed weed, which I must have gotten with clover seed. Kindly tell the name, and how to get rid of it. T. J.

Ans.—This is the small bindweed, sometimes called morning-glory bindweed (Convolvulus arvensis). Its brown seeds are between an eighth and a sixth of an inch in length, and hence are too large to escape notice as an impurity in clover seed. When it once gets introduced to a field, then cultivation, particularly in damp weather, only spreads it, for every detached bit of its perennial rootstock is likely to grow. If the patches are small, cover them over with coarse manure, and keep it on long enough to effectually smother the weed, or cultivate the patches in dry weather, and with repeated rakings try to get the roots out, and burn them. J. D.

J. J. Wilson, Milton, Ont., who advertises Berkshires in this paper, writes: "I have an extra choice lot of young stock from two to eight months to offer, bred from imported and Canadian-bred dams and imported sires; some nice young sows bred and ready to breed. Sales have been good, and all through my advertisement in 'The Farmer's Advocate,' which I consider an up-to-date advertising medium. I am, this week, shipping an extra choice pair of young sows in farrow. They go to Dean Lake, Algoma District, and I am sure will please their new owner. My customers are all well pleased with the stock I send out, as the following letter from a Frontenac County purchaser will show: 'The sow I purchased from you arrived early on Saturday, and I must say that I am delighted with her. I saw nothing at the Toronto Exhibition last fall that would surpass her, where the breed was largely represented. I brought her over on the afternoon ferry, where she was admired by at least fifty farmers, which should be a good advertisement for your stock. I will want a boar in the fall, or, perhaps, if you had a good boar pig I would take one now. I have just received the registered pedigree of sow.'"

SUFFERED FROM HEART and NERVE TROUBLES FOR the LAST TEN YEARS.

If there be nerve derangement of any kind, it is bound to produce all the various phenomena of heart derangement. In

MILBURN'S HEART AND NERVE PILLS

is combined treatment that will cure all forms of nervous disorders, as well as act upon the heart itself.

Mrs. John Riley, Douro, Ont., writes: "I have been a great sufferer from heart and nerve troubles for the past ten years. After trying many remedies, and doctoring for two years without the least benefit, I decided to give Milburn's Heart and Nerve Pills a trial. I am thankful to say that, after using nine boxes I am entirely cured and would recommend them to all sufferers."

Price 50 cents per box or 3 boxes for \$1.25, at all dealers, or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

LARGE ENGLISH YORKSHIRES



Pigs of the most approved type of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable. D. O. FLATT & SON, Millgrove, Ont.

Willowdale Berkshires

are unsurpassed for quality and breeding. My stock is bred from the best imported and Canadian-bred dams, and imported sires of the richest breeding to be found in England. Young stock all ages for sale reasonable. Young sows bred and ready to breed. Young boars 3 and 4 months old. Satisfaction guaranteed. Long-distance telephone in residence J. J. WILSON, Importer and Breeder, Milton P. O. and Station, G. T. R. and C. P. R.

PINE GROVE BERKSHIRES!

Bred on aristocratic lines and from high-class show stuff, sired by the Toronto winner, Willow Lodge Leader. For sale are young animals of both sexes—4 and 6 months of age; of choice bacon type and showing form. W. W. BROWN-RIDGE, Ashgrove P. O., Milton Sta.

Concord Berkshires!

A large number of both sexes from 4 to 6 months of age, got by Dictator 14717 shown seven times, won seven firsts. These are the best lot I ever bred, nearly every one a show pig. Look up my exhibit at Toronto Exhibition. THOS TEASDALE, Concord P. O., Thornhill Sta.

CHESTER WHITE SWINE

and SHROPSHIRE SHEEP. Right in quality; right in price. Come and see, or apply by letter to W. E. WRIGHT, Glanworth, Ont.

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; post free and safe delivery guaranteed. Address E. D. GEORGE, Putnam, Ont.

Meadowbrook Yorkshires.

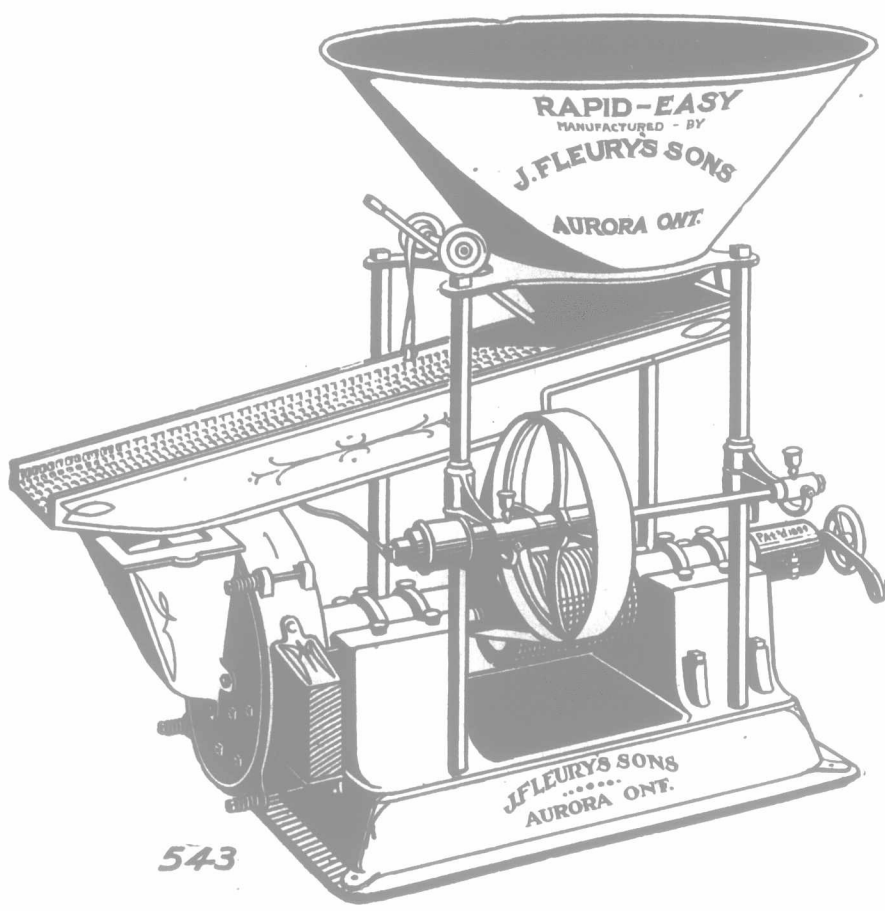
Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmieny Topman. Everything guaranteed as represented. J. H. SNELL, Haysville P. O. & Station.

Shorthorns and Berkshires!

Choice pigs from March, April and May litters. Pairs not akin supplied. Some fine calves for fall delivery. All good colors. JOHN RACEY, Lennoxville Que.

FARMER'S ADVOCATE "Want and For Sale" Ads. bring good results. Send in your ads. and you will soon know all about it. The Wm. Weld Co., Ltd., London, Ont.





**"Rapid-Easy" Grinders**

**"Rapid-Easy" Grinders do more work with same power than any others.**

The Grinder here shown, **No. 6** (11-inch plates) and **No. 7** (13-inch plates) is especially adapted to **custom work**, and may be driven by threshing engine, or any other steam engine, gas engine or other power.

**"Rapid-Easy" Grinders sell more largely than any others in Canada, and are made in sizes to suit all powers.**

Ask for further information.

**J. FLEURY'S SONS,**  
Aurora, Ontario.

Medals and Diplomas: World's Fairs, Chicago and Paris.

## GOSSIP.

Official records of 94 Holstein-Friesian cows were accepted by the American Holstein Association from June 25th to July 25th, 1907. All made seven-day records, three made fourteen-day, one a twenty-one-day, one a twenty-nine-day, and six made thirty-day records.

This herd of 94 animals of all ages, of which more than one-half were heifers with first or second calves, produced in seven consecutive days 36,009.2 lbs. milk, containing 1,203.91 lbs. butter-fat, thus showing an average of 3.34 per cent. fat. The average yield for each animal was 383.1 lbs. milk, containing 12.808 lbs. butter-fat, equivalent to 54.7 lbs. milk, or nearly 27 quarts per day, and nearly 15 lbs. of best commercial butter per week.

The great work that Holstein-Friesian cows are doing is shown by the fact that, to the close of the 18th Vol. of the Advanced Register, 54 animals have made official seven-day records in excess of 21 lbs. butter-fat. These 54 cows averaged 578.7 lbs. milk, containing 22.662 lbs. of butter-fat, thus showing an average of 3.92 per cent. fat; and every well-informed person knows that the amount of fat produced is equivalent to 26 1-3 lbs. of the best commercial butter.

In this issue of the Official Reports, the aged cow class is led by Prilly; at the advanced age of twelve years, producing 20.161 lbs. of butter-fat in seven days, and 78.94 lbs. in thirty days. This cow is now noted as the dam of five A. R. O. cows, four of which average 20.398 lbs. of butter-fat. Pansy Pietertje De Kol produces above 18 lbs. fat, and gains honorable mention.

In the list for this period are the following cows, owned in Canada:

Houwtje J. P. Inka Paul 54360, age 7 years 1 month 25 days; days from calving, 67; Milk, 433.4 lbs.; per cent. fat, 3.77; fat, 16.358 lbs. Owner, George Rice, Tillsonburg, Ont.

Mercedes Canary Pietertje 66423, age 4 years 8 months 3 days; days from calving, 20; Milk, 391.7 lbs.; per cent. fat, 3.60; fat, 14.115 lbs. Owner, George Rice.

## TRADE TOPIC.

To few men is the privilege given of witnessing such a celebration as that of which Mr. John McClary, of London, Ontario, was the center during the week ending July 13th, which witnessed a series of splendid jubiliations marking the sixtieth anniversary of the McClary Manufacturing Company. Noteworthy, not only because it relates to the largest concern of its kind under the British flag, but because it has thrust before the attention of the people of Canada a man whose achievements make him one of the greatest captains of industry this country has yet produced.

To John McClary, the past sixty years has meant a change from the control of a small tinshop to the possession of the largest establishment of its kind in Canada. The Company's plant in London now covers two enormous blocks of land, while there are also important establishments in Montreal, Toronto, Winnipeg, Vancouver, Hamilton, and St. John. Over 1,300 employees are on the Company's pay-rolls, of whom over seven hundred are married men, supporting homes. More than \$600,000 is paid in wages annually. These are a few figures which will give the reader an impression of the size of the plant as it is at present, and of its importance to the community.

Mr. McClary has always been and is still the guiding head of this tremendous business. He remains, even at his present age, a man of remarkable ability, sparing no money or pains to attain an end that his judgment told him could be won. This is well illustrated in the magnificent advertising campaigns this company has entered into in the Canadian papers, which have made the McClary products known in all the homes from ocean to ocean.

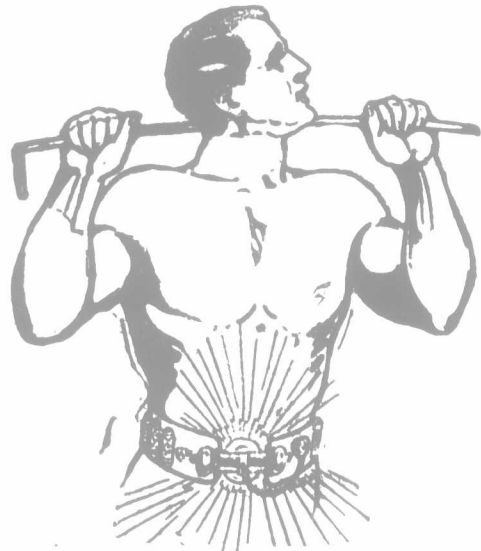
Though the McClary Company is Mr. McClary's first care, it is not the only successful company that shares in the benefit of his business acumen and experience. He is also president of the London Life Insurance Company, and the Ontario Loan and Debenture Company, and a Director of the London & Western Trusts Company.

# Make More Money!

## Health and Energy Mean Prosperity

You can't add to your income while you carry about that outfit of weak nerves.

Bodily strength and vigor is the principal stock of about 19 men out of 20.



The most profitable investment you can make is to increase this capital stock, and you can do this if you will use electricity as we apply it, a few hours every night for a while, and build up your nerve power.

Electricity is nerve power. That fact was proved years ago, and plenty of nerve power means abundant strength and energy.

"Look here," said a man in my office last week, "your Belt is better than any medicine chest. It's better than having a doctor right in the house all the time. My wife uses the Belt in the afternoon and I use it in the evening. We wouldn't part with it."

Yesterday a man wrote in: "I suffered for 10 years and your Electric Belt cured me. My father was on a sick bed when we got the Belt, and the doctors had given him up. He used the Belt, too. In four days he was up and walked seven squares. He is now running two hotels and manages both himself."

"That's coming pretty strong," you say. Call at my office and we will show this evidence, and more, too—all going to prove that our statements about the Dr. McLaughlin Electric Belt are conservative, compared with the actual facts.

Don't stick in that old rut. Help Nature along by the intelligent use of this wonderful force, Electricity, and you can overcome your bodily weakness, your pains and aches, double your strength and vigor, double your income and add to your balance in the bank.

Below we give you specimens of the kind of letters we get every day by the score from people who have used this grand remedy.

"Before I commenced wearing your Belt I couldn't take a drink of cold water, it would distress me so, but now I can eat and drink anything that is set before me. There is no ache or pain of any kind about me. I haven't felt so well for 10 years."

"I am well satisfied with your Belt. I feel well and can work without being fatigued and done out like I used to be."

JOSEPH C. CARTER, London, Ont.

If you are sceptical, all I ask is reasonable security for the price of the Belt, and

### WHEN YOU ARE CURED PAY ME

The Dr. McLaughlin Electric Belt cures Indigestion, Constipation, Weakness of the Liver and Kidneys, Rheumatism, Neuralgia, Lumbago, Sciatica; overcomes the effects of exhaustive habits—every sign of weakness in men or women. It puts new Life and Energy into the Nervous System.

Ginger up! Use this Belt and become a Man!

Call at my office or send me this coupon and I will mail you my 84-page FREE BOOK. It points the way to Health and Prosperity.



### Dr. M. S. McLAUGHLIN

112 Yonge St., Toronto, Ont.

Please send me your Book, free.

Name .....

Address .....

Office hours—9 a.m. to 5.30 p.m.  
Wednesday and Saturday to 8.30 p.m.

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