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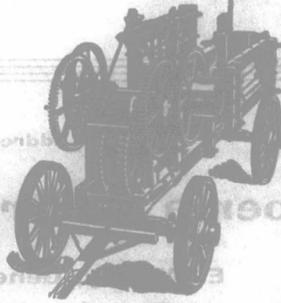
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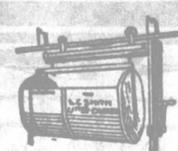
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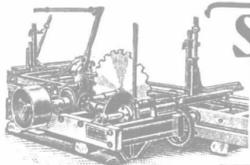


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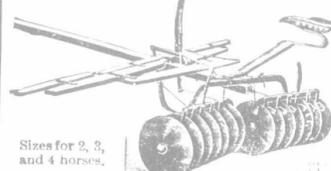
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VOL. XLI.

LONDON, ONT., AND WINNIPEG, MAN., FEBRUARY 15, 1906.

No. 699

EDITORIAL.

What is Your Rotation?

It is quite generally admitted that a rotation of crops is necessary to secure the best yields and maintain soil fertility. Planting the same crop in a field year after year is nearly always bad practice, whether it be wheat, roots or corn. Not only so, but by many of our best men in Ontario that system of farming is considered at fault which calls for two cereal crops in succession, or for corn, potatoes or roots after grain. A systematic short rotation will give a clover or clover-and-timothy sod to plow under every three or four years—in summer or fall for roots, and in fall or spring for peas, corn, rape and other fodder crops. The peas and hoed crops in turn are the very best ones to precede grain, the fine state of tilth brought about being especially favorable to the maturing of a good kernel, and also to the securing of a good catch of clover, to which the grain should usually if not always be seeded. The clover then replenishes the humus and gathers atmospheric nitrogen, some of which is added directly to the soil by plowing under the clover sward, while an additional quota comes back indirectly through the manure made by the stock that has eaten the clover in meadow or stable. And, by the way, it is not out of place to remind our readers here that manure from cattle fed on clover, bran and oil meal is a good deal richer in the elements of fertility than that from cattle fed timothy hay and corn.

A short rotation in which clover enters frequently is the best means of providing nourishing food for stock, as well as adding nitrogen to the soil and keeping it full of that indispensable element, humus (decayed vegetable matter), so important in preserving a good physical condition. A soil without humus loses plant food, by leaching and in other ways, is hard to work, and unsatisfactory in every way. Rotation with clover is the remedy, and in order that it be not neglected, each farmer should evolve in his mind a systematic rotation. Haphazard change of crop is not rotation, though it is decidedly preferable to no change at all. A rotation should be founded on scientific principles, which we cannot fully discuss in this article, but, in a word, the aim should be: Manure and sod for the fodder crops, fine tilth for the cereals, and clover-seeding with every crop of grain. Circumstances may occasion a departure from any ideal system, but it is well to have one by which to work. We venture the opinion that many farms, for lack of a good rotation, are losing more fertility each year than a good team could haul all winter in the form of manure from a neighboring town.

A rotation is the best means of combating weeds. Those not subdued by the grain may be smothered by clover, those that survive the clover may be cultivated out of the corn or roots, and the mustard that comes up with the following crop of grain may be hand-pulled, or killed by spraying with copper sulphate. Few weeds will survive a short rotation practiced by an energetic farmer.

Having indicated the importance of a systematic short rotation, the next thing is to offer a good one. Here we are confronted with the fact that no rotation can be laid down that is

best or even practicable for all, and as our aim is not to suggest ideas of advantage merely to a few, but to render the greatest possible service to the rank and file of farmers, surrounded as they are with varying local conditions of soil, climate, markets, size of farm, and so on, we conclude that it will be more widely instructive for some of our readers to give their experience first, covering in detail the methods they now practice, together with reasons, and, maybe, suggestions as to possible or intended improvements. We should like to hear from at least one man in every county of Ontario, Quebec and the Maritime Provinces.

Could we suggest a means by which every farmer could get fifty loads of good manure for nothing, nearly every reader would jump to it. Here in this rotation idea we have a simple, less laborious, and quite as effective way of gaining fertility, and it may well be a question at this season in the mind of each one of us: What is the best rotation I can adopt?

Let the Boy Help to Manage the Farm.

"How to Keep the Boy on the Farm," is a subject on which changes have been rung until it is almost in order to apologize for mentioning it again. One of the stock-in-trade adjurations of Farmers' Institute speakers has been to give the boy a colt, calf or lamb to raise, said animal to remain Johnny's exclusive property on reaching maturity, and the proceeds to go into his pocket, not his father's. At this juncture the address is usually punctuated with applause, even the boys approving a scheme by which they might get a little pin money for their very own. But as for such a plan doing anything worth while to keep the boys on the farm—well, any boy who could be kept on the farm by a premium of that sort, would be very little use to it if he did stay. Apart from its futility, such a scheme is objectionable on the ground that it tends to perpetuate in the juvenile mind a prevalent misconception as to the relation between income and profit. A hazy notion is held by many that so long as no feed is bought for an animal, its selling price represents pretty nearly all gain, overlooking the fact that the feed has or should have an actual cash value; that interest, labor and taxes must come out before profit is reckoned; and that only by close attention to details can the feeding be made to show any real profit at all. If the boy were to keep an account of the feed, allow his father fair value therefor, and keep only the balance of the proceeds, the above objection would not apply. The boy might not have much to show for his labor, but his father could afford to let him keep several animals on these terms, and it would ground the boy in business principles, teaching him that it is not all dividend that goes to market, that profit is the comparatively narrow margin between cost of production and selling prices—a margin that must be watched with eagle eye, and the very best methods studied to increase it, if the farm account is to balance on the right side. Some will be afraid of discouraging the boy, but if he can be discouraged by knowing the truth, the sooner it happens the better. The young mind is hopeful; if it does not find the first operation profitable it will strive to improve, and the net result will be to discover more economical methods of production. Let the young people come early to

look at things in their true light; let them get down to bed-rock business principles, and there will be less likelihood of young men leaving the farm because of inability to make it pay.

But if the above plan is good, how much better would it be to give the boy an interest in the management of the whole farm? There are boys whose fathers scarcely ever consult them about the farm work. The father says, "We'll do so and so," and the boy's business is to obey. Sometimes he ventures a suggestion, but the parent never thinks of asking the son's opinion in laying out the work. Such cases may not be numerous, but they do exist, and a greater or less degree of this attitude is exhibited by men who think themselves very considerate. When, eventually, the father's death, the son's removal, or something else, causes full responsibility to devolve suddenly upon the young man, he is handicapped by lack of that initiative self-reliance which he should have been gradually acquiring. A life-long servant makes a poor master. But the boy should be treated as a partner, not merely for the sake of the experience it gives him, but for the interest it inspires. Even men work far better in carrying out what they have helped to plan, and how much more does this apply to the boy? Let a boy have a voice in running the farm, and if he is the kind worth keeping on it, he will at once evince a new interest in the work. No longer will he do the chores to get through and have some fun; he will feed, bed and water the stock to make it thrive. No longer will he want to let the dog run the cows; he'll drive them quietly, so they may let down the full mess of milk. No longer will he spud thistles to get the job done; he'll do it to clean the farm. No longer will he try to get away from the farm; he will feel a pride in it and an ambition to add improvements, increase its fertility and get a better class of stock thereon. Boys are naturally ambitious, enterprising, enthusiastic. Older men are liable to lack these motive influences; they need some one around to suggest new things and keep the farm practice from dropping into ruts. Of course, boys lack the ballast of experience; they need to be held in, but let it be done, not with a pull on a double-twisted bit, but with the gentle touch of considerate direction. Don't drive the boy—lead him. When he gets on the track of a fresh idea, don't throw cold water on it because it is new. Investigate. The first silo in our neighborhood was built as the result of persistent agitation by a sixteen-year-old reader of "The Farmer's Advocate." The same lad was instrumental in introducing many other good ideas, such as underdraining, rotation of crops, and other things, on account of which the farm is very much more valuable to-day. Boys often have better ideas than they are given credit for, and sometimes remarkably sound judgment, being untrammelled by the customs and prejudices of the past. Don't think it necessary to keep the boy down and disparage his suggestions whenever possible. Some people, fearing, apparently, that their boys will get to know too much, take special pains to arrest any tendency towards "swelled head," incipient symptoms of which are naturally in evidence about the age of sixteen to twenty-one. But isn't it best to let the boy make a few not too costly mistakes now and then, and find out for himself that there are wrinkles he may yet learn from experienced men?

Take the boy into your confidence in the management of the farm. Plan with him, and he will work with you. Let him feel a proprietary interest in the place, and he will cease to chafe under the parental yoke. The farm will be good for the boy, and the boy will be good for the farm.

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DOMINION.

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men, gardeners, stockmen and home-makers, of any publication
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THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

Sowing Clover with Oats.

Resolve to seed down every acre of grain this
year to clover or clover and timothy. Even if
past experience shows a doubtful chance of getting
a "catch" with oats, it is worth trying, any-
way. The harder it is to get a stand of clover
on a particular field, the worse the field needs it,
as a rule, and one chance in six is worth taking
on such land. Sow the grain thin—about 1½ to
1¾ bushels per acre—and the clover seed thick,
about 10 pounds of good clean seed per acre, and
you will double the chances of a successful seed-
ing over the neighbor who sows two bushels of
oats and six pounds of clover seed, and you will
get very nearly as much grain, too. Some say,
"If it all grows, six pounds of seed is enough."
True, but it never does all grow, especially on
the poorer spots. Sow plenty of seed, and all
the plants will do better, apparently; there will
be a mat on the ground after harvest to keep it
shaded and moist, so the plants will have a
chance to thrive and stool out, and grow them-
selves a winter protection. On the other hand,
by sparing the seed, there will be a sickly stand,
weeds will come in and choke out the clover, and
it will be so miserably thin on some spots that
the man will hesitate to leave the field to mea-
dow, and very likely say there is no use seeding
down with oats. It depends a good deal on
how one goes at it. Never begrudge money in-
vested in clover seed; it returns the biggest in-
terest of anything we know.

Draws from England.

I am very pleased to inform you that I am coming
to your beautiful country at the beginning of March
next, so I shall have much pleasure in renewing my sub-
scription to your most valuable paper when I arrive,
and am in a position to let you know my permanent
address, as I am going farming. I may say that dur-
ing the short time that I have had "The Farmer's
Advocate," I have derived much pleasure and knowledge
from its perusal as regards Canada and the methods of
working, which I otherwise should have been ignorant
of, so I am sure you will agree with me when I say
that if some others were to do the same they would
feel much more at home and independent with the knowl-
edge obtained when they arrive in Canada. Hoping
to make your acquaintance again about next year,
Croydon, England. JOHN MORLEY.

Value of Pure-breds: A Fact as Well as a Theory.

The tardiness of the general farmer in availing
himself of the benefit to be derived from the use
of pure-bred sires in the improvement of his
stock, is something difficult to understand or ex-
plain. Many good farmers, having ample means,
appear to actually entertain a prejudice against
pure-bred stock, and will stand at a cattle-sale
ringside, and see thrifty, useful pure-breds sold for
little more than ordinary dairy cows or butcher's
beasts would bring in the marketplace, while they
continue to feed good food to inferior stock
which make poor returns in meat or milk for the
food consumed, and sell for low prices when
placed upon the market, as compared with well-
bred grades which meet the demand for good
quality and bring top prices, making profitable
returns for what they have eaten.

The opinion seems to prevail that pure-breds
are less hardy, and require more care and more
liberal feeding than grade or ordinary stock.
This is a mistaken idea. Many pure-breds
have stronger and more vigorous constitutions
than common stock, consequently have a keener
appetite, superior digestion, assimilate their food
to better advantage, and make greater returns in
gain of weight and quality of product.

Most men acknowledge the superiority of well-
bred grade stock over common scrubs, but few
appear willing to give to pure-breds the credit
due them for the existence of good grades, yet
any intelligent man, by doing a little honest
thinking, must be convinced that, but for the
pure-breds, there would be no good grades, and
no improvement over the scrub in any class of
stock. And yet, how often does it occur that
when, for instance, a grade cow is bred to a pure-
bred bull and the produce is a male, it is, owing
to its superior appearance, kept entire and used
as a sire, with the result that little improvement
is made in the herd in comparison with what
might have been effected by the continued use of
pure-bred sires, which, if well chosen, would have
continued the grading-up process until the value
of the herd would probably, in a few years, have
been doubled.

We do not advise farmers generally to go into
the breeding of pedigreed stock as a special busi-
ness. We do not believe it would be in their
best interest nor that of the breeds, for the reason
that all are not qualified by training, taste
and judgment to take up the work, and that
probably but a small proportion would make a
success of it, owing to the lack of the qualifica-
tions named; but in this age, with the superior
advantages which young farmers enjoy for the ac-
quirement of knowledge concerning improved
methods of feeding and management of stock, it
is passing strange that many more do not make
a commencement in a modest way with pure-
breds, and that the rank and file of farmers do
not make it a point to improve their stock in
all lines by the use of pure-bred sires. The
satisfaction of seeing good stock in one's stables
and pastures itself adds much to the pleasure of
farm life, and when we consider that, from the
practical dollar-and-cents point of view, it is cer-
tainly more profitable to rear and feed the im-
proved class, there appears no sensible reason for
neglecting to effect the needed improvement in the
only way by which it can be done, and that is
by the use of a good class of pure-bred sires. If
the cost of such were unreasonably high, it might
be considered a valid reason for postponement,
but the reports of public sales and the experience
of those who correspond with breeders, proves
that useful sires can now be secured at prices the
general farmer can well afford to pay. It is
practically certain that a pure-bred sire will add
sufficiently to the value of his offspring over that
of a grade in the usual term of his service in a
herd or flock to more than recoup his cost and
keep, and in many instances may be sold for
nearly if not quite his original cost at the end
of his term.

In discussing this question, the mind naturally
turns to cattle—a class of stock which nearly
every farmer keeps, either for beef or dairy pur-
poses, but the doctrine of the value of pure blood,
as a fact as well as a theory, applies equally to
horses, sheep, hogs and poultry. The potency of

the pure-bred sire in effecting improvement has
been so clearly proven in observation and experi-
ence as to be beyond question, and the better he is
in individual make-up, and the higher the stand-
ards of his recent ancestry in character and rec-
ord of production, the more likely will he be to
impress those desirable qualities upon his progeny
in a high degree. We counsel farmers all to
take advantage of the opportunity now presented
of improving the quality of their stock, and pre-
pare to profit by the good market prices present
and prospective for farm products in all
lines a little better in quality than the
common. Our markets are expanding, and
will continue to expand at home and
abroad, and the best quality of product will
always command a premium. Let us, then, not
be content with slow-growing, common stock and
the inferior prices they inevitably bring, but be
ambitious to produce the sort that sells quickly
at the best prices going. Bear in mind the fun-
damental doctrine of this article, that the value
of the pure-bred is not simply a matter of theory,
it is one of the best and most widely-attested
facts of experience.

HORSES.

High Prices for Thoroughbred Stallions.

The recent sale of the King's horse, Diamond
Jubilee, for 30,000 guineas (\$157,550), to the
Argentine breeder, Senor I. Correas, following close
on the purchase of Cyllene by William Bass for a
similar sum, has caused so much discussion that
a table containing the names and prices of all
Thoroughbreds (and, as far as possible, their ages
at the time of sale) which have changed hands for
£10,000 or over, will doubtless be found interest-
ing.

It was nearly 41 years ago that the Marquis
of Hastings electrified the turf world by his pur-
chase of Kangaroo for 12,000 sovereigns.

The colt had won three races off the reel in the
early spring for "Mr. Henry," which was one of
the assumed names adopted from time to time
by Mr. Padwick, and it was after Kangaroo's vic-
tory over the Duke of Beaufort's Koeing (a hot
favorite) and a big field in the ill-omened New-
market Biennial, that the Marquis secured him
for what was then, and for some years afterward,
a record price for a race-horse, says "Hagio-
scope" in the London Sportsman.

Not until 1872 was Kangaroo's figure exceeded,
and then for the stallion Blair Athol, who was
purchased at the sale of the Middle Park Stud in
July, 1872, for 12,500 guineas. Three years
later this sum was surpassed, the late Duke of
Westminster giving £14,600 to the late Robert
Peck for Doncaster, whom the vendor had pre-
viously acquired for \$10,000.

Not until 1890 was Doncaster's figure equalled.
Count Lennendorff in that year paid £14,000 for
the Derby dead-beater, St. Gatien, who for a long
time stood at the Graditz Stud before in his old
age, being acquired at a low figure by the Ameri-
cans, owing to the stud success of his best son,
Meddler.

From 1890 to the present day prices for the
best stallions, mares and also younger animals of
fashionable blood have gone on increasing, and
in September, 1891, the late Sir J. Blundell
Maple paid £15,000 for the triple crown winner,
Common.

Scarcely had the sensation caused by this big
deal subsided when the news was cabled from the
States that St. Blaise, who in 1885 had gone to
Mr. Lorillard's stud, had been sold at auction for
£20,000, which was the opening and closing bid.

In 1892, Ormonde, whom the Duke of West-
minster had parted with three years previously for
£12,000, again changed hands, his South Ameri-
can purchaser, Don Juan Boncau, selling him to
W. O'Brien Macdonough, the California breeder,
for the colossal sum of \$150,000, or £31,250.

Even here, however, finality in the matter of
high prices was not reached, for, in the spring of
1900, M. Edmond Blanc, at the sale of the late
Duke of Westminster's horses in training, easily
beat all previous records, by securing Flying Fox
for 37,500 guineas. Later in the year, too, the
record price for a yearling of 600 guineas for
Childwick was beaten when Sceptre was sold at
the July sales for 10,000 guineas.

Since the day of Flying Fox's sale Cyllene and
Diamond Jubilee have both fetched more money
than Ormonde, without, however, approaching the
sum paid by Edmond Blanc.—(Rider and Driver.)

Are Acquired Characters Transmitted?

The Chicago Horseman has published a series of interesting articles by Prof. Casper L. Redfield, expounding some theories based upon the results of investigations relative to the effect that condition and age in sires or breeding stock generally may have upon their offspring. Confining his study to trotting horses, he has tabulated evidence to show that apparently the best performers have sprung from adult horses that had been in the best possible condition for service on the track, and from this fact endeavors to deduce that a degree of the acquired dynamic qualities, i. e., force or power, possessed by the sire at time of breeding is in some way transmitted to the progeny, and that the converse applies to stallions that have been pampered or have not had these qualities developed.

In a recent issue of the Horse World is a further article by the same author, under the title, "The Assumed Inheritance of Acquired Characters; Its Relation to Organic Evolution." While it is not unlikely that Prof. Redfield's conclusions rest upon a foundation of fact, it is by no means certain how far he is right. Some of his theories are ingenious, not to say far-fetched. But we will let him speak for himself, in the following words:

"By tabulating animals which breed in pairs and at successive times, it is found that each increase in the age of the parents at the time of reproduction causes a corresponding increase in the natural longevity of the offspring. This increase in longevity is accompanied by later arrival at maturity and capability of reproduction at a later age. The propensity of animals to fight at the beginning of the breeding season operates automatically to increase the age of the parents at the time of breeding, and this in turn increases the longevity of the progeny.

"When an animal fights he exercises his physical and mental organism, and exercising these organs develops their size and strength. When males fight for the possession of females, these fights take place before breeding occurs. To a large extent many of these fights occur a considerable time before breeding, and as a consequence, nature in a very large degree develops her animals before she breeds them.

"By tracing backward from the best trotting horses of to-day to their progenitors of three or four generations ago, it is found that those progenitors were exercised at the trot to a considerably greater extent than were the average animals of the same breed which were at that time used for breeding purposes.

"These and other examples indicate that the development acquired by activity in one generation becomes part of the heredity of the next. . . . When any organ is developed so as to make it stronger, that development is a gradual process and not an instantaneous result. Development increases with time, and becomes greater and greater the longer the time during which it is continued.

"Longevity in offspring is increased by anything which increases the age of the parents at the time of reproduction. Contest between males for the possession of females is one of the things which acts to delay reproduction until the animals are fairly well advanced in age, and these same contests develop the dynamic qualities of the animals.

"In America the trotting gait in horses has been more cultivated and exercised than in any other country, and, by descent from horses developed in that way, we have produced the best trotters in the world. From a different stock and by similar training and development continued through a number of generations, the Russians have produced trotters second only to the Americans. The English Thoroughbred consists of Arabians and Barbs grafted on common stock. By training and racing these horses generation after generation we have horses much superior to either of the originals. In 1825 a young hunter bought a brace of ordinary setters from his neighbor. For forty odd years this man used these dogs and their uncrossed descendants for hunting purposes. Being a hunter and not a breeder, he did not ordinarily breed his dogs until they became so old that it was necessary for him to provide for their successors, and being an enthusiastic and indefatigable hunter, he worked his dogs from daylight to dark every day for weeks together. At the end of this forty odd years of crowding the greatest possible amount of development into his dogs before breeding them he had the best setters in the world.

"These examples indicate that a high degree of activity and a continually increasing length of time between generations are the most important elements which enter into a complete theory of organic evolution. So powerful are these two things in promoting progress from a lower to a higher scale that I do not hesitate to state unequivocally that I consider them more influential in true evolution than are all other factors and influences put together. These are things over which man has or may obtain control, both as regards himself and as regards the lower animals, and I have sufficient confidence in the evidence obtained to go on and say, as saying, that through them man may build up any kind of animal he may wish, and to any degree he may desire—even to the extent of making one of the lower animals superior to what he now is himself.

"I say that the length of time elapsing between generations is one of the fundamental elements of organic evolution, and that the breeders of men, of horses, cattle, dogs or fowls can, by controlling this

element of evolution, produce any kind of result desired. Not all of the results desired are of the same kind, and to produce results of different kinds this control must be exercised in different ways. But if we are to take control of nature's laws and direct their action along such lines as seem to us advantageous, we should not confine ourselves to directing one thing, we should direct all of these things which come within our reach. Besides controlling the age at which reproduction takes place we should control the degree of activity and the lines along which we wish it to go. We should also take intelligent advantage of each accidental variation in form or color which will assist in rapidly reaching a desired goal.

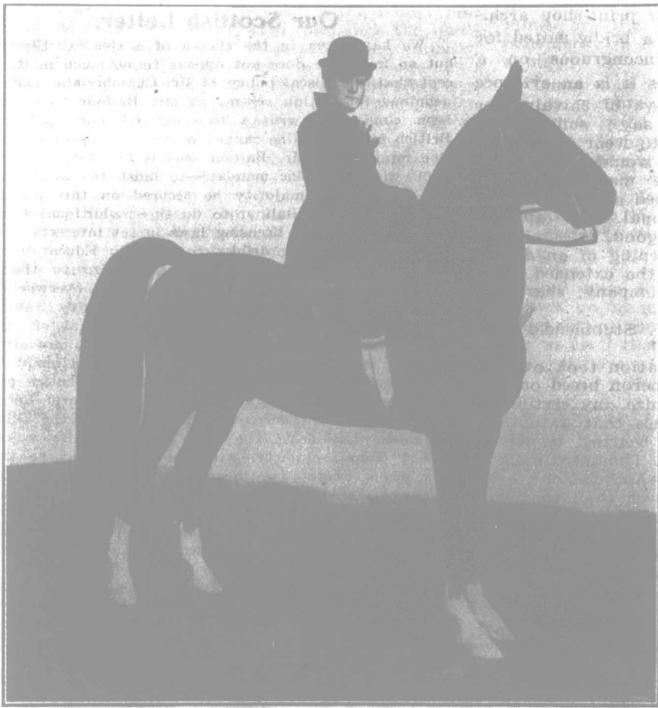
"The first thing for the breeder to recognize is that all of the animals which we know to-day have been developed by a process of evolution from previous animals of an inferior quality. The next thing is a recognition of the forces which have kept that process in operation until they have brought about the results which we now see. And the third step is to keep those forces acting continuously in a desired direction, so that each step may be a forward step. With such knowledge properly applied the practice of breeding animals will be as certain in its results as are the results of ordinary manufacturing process, and the rate at which improvement will be secured will exceed anything the world has yet seen."

Possibly Prof. Redfield's conclusions are extravagant. Dr. A. S. Alexander, a well-known authority on horses, goes so far as to say in commenting on the theory:

"Whether the age of the sire or dam affects the

What Should be the Farmers' Horse-breeding Policy?

The question is sometimes asked, "Have we, with all our excellent breeds of horses, one, the grades of which are, in any frequent number of cases, exactly suited to the purpose of farm work?" We have the Thoroughbred and Standard-bred, both good for the respective purposes for which they have been bred, viz., speed at the running and the trotting or pacing gaits, but only in occasional instances do they get possess the weight and the steadiness to meet the requirements of the farm work-horse. The Hackney, also, would be a better farm horse if he had more size, and his characteristic action is none to his advantage so far as work is concerned. We have the French and German Coachers, but they lack prepotency, and, so far as our observation goes, their colts are often disappointing. We have the Clydesdale, king of draft breeds, but he is scarcely so active as the majority of us would like. The plow-horse of the Old Country is, not, the farm horse of Canada. The same observation applies also to the Shires. The Percheron is frequently deficient in his underpinning, and, while some of the stallions put up a flashy show, and some excellent individuals are produced, inspection of the line-up at an exhibition such as the Chicago International, fails to convince the farmer, as a general rule, that any good can come of transferring his favor from the Scotch or English to the French draft breed. Had we a stout, clean-limbed, fairly active and prepotent breed, of about the Clydesdale's scale, but with a conformation modified in the direction of the old Morgan type, it seems to us we would have a breed the stallions of which, when mated with the common mares of the country, would get a large proportion of useful farm horses, and that such would no longer be, as they now are, an accident of breeding. However, since we haven't such a breed, and are not likely to have one for a good many years to come, the question is, what breed should farmers use to produce horses that will best meet their own needs, as well as the most profitable market requirements. There is, beyond question, a great deal of injudicious mating done every year for lack of a clearly-advised policy in this regard. Seeing that our reputation as a horse-raising country depends upon our adopting and adhering to some one or more systematic general lines of breeding, and seeing, further, that the subject is of direct interest to every farmer, we believe an open discussion in "The Farmer's Advocate" at this season would be advantageous.



Forest King.

Almost a perfect type of the Gaited Saddle Horse.

progeny, or whether the prepotencies already possessed by the parents can be intensified by training in the direction of a particular prepotency—for fast trotting, as an example—cannot be asserted with any degree of assurance, and so far as our own observation and experience goes we do not believe that the prepotency is so affected or susceptible of change other than that due to the state of health of the animals at time of mating."

Our own opinion on the matter, if we were to take the privilege of speculating, would be that working draft stallions and mares, or development of speed in trotting horses, would have a tendency to develop power or speed, respectively, in the progeny, and that lack of such working or training would eventually result in the impairment or loss of the dynamic qualities for which the ancestry had been noted. It is probable that the results of one policy or the other would not be marked in the first generation, but more and more pronounced in succeeding ones.

What is the Shetland pony but a product of environment? What is the action of the Hackney but the result of training which developed a tendency that has gradually become hereditary? Going to cattle for an illustration, how is the milking tendency of certain breeds accounted for but by the hereditary transmission of milking quality developed in successive generations by careful and persistent milking in each lactation period from the first calf on? Do not the facts point to the probability that man in improving breeds of horses or other stock, can supplement and reinforce the effects of selection by developing in his breeding animals those qualities he wishes to fix in their progeny?

The questions we present for consideration are: Should a farmer's principal aim be to produce a horse for his own use, or a horse for the market?

What breed of horses in this country will, when mated with the general run of mares, produce the largest proportion of useful farm horses?

What light breed of horses will get the largest proportion of stock that will bring the surest and best average market returns?

What breed of heavy horses will get the largest proportion of stock that will bring the surest and best average returns?

What breed is likely to get the most profitable stock for the farmer, considering his own as well as the market requirements?

What classes of horses are likely to increase and what to decrease in demand during the next ten or twenty years?

Admitting that there will continue to be some call for all our present breeds and recognized classes, what should be advocated as the line of breeding for farmers to adopt most extensively?

Is it advisable to encourage additional breeds, or confine our attention to a few of the best we have?

We will be glad to know if your label has not been changed. This is our busy season.

Sorry to have to mention it again, but have you renewed?

About Enough Light for Furnals.

The question of light is one that does not receive nearly sufficient attention. I find most farmers are satisfied with a little bit of light—windows about 1 ft. by 2 ft. every here and there in the side wall, so that the place has always a sort of subdued light, very suitable for furnals, but certainly not conducive to health. These are matters which ought to receive a great deal more attention than we commonly give them, in our horse stables, or cow stables, for that matter. The light should come, if there is no feed passage, through a small window in front of each horse, high up, and protected from the horse by iron rods. There should also be light coming in at each end, or at one end, and light on either side. The windows should be sliding or hinged, so that they may be opened in summer, or whenever it is necessary to have a current of air in the stable to cool the place.—J. H. Grisda'e.

Information re Percheron Registrations.

At the present time, the only record of Percherons recognized and approved by the U. S. Government is that issued by the Percheron Society of America, although we understand that the Dominion Live-stock Commissioner purposes starting a Canadian record. The Secretary of the above Society kindly sent us samples of the various papers used by them for recording Percherons. The pedigree certificate is an ornate piece of work from the standpoint of print-shop architecture, although a saddle and a bridle suited for a coach horse looks a little incongruous on a draft-horse certificate. Perhaps it is an evidence of atavism, whether of the days of chivalry or the Apache, we are unable to say; suffice that the certificate is large enough to wear as a chest protector. A better ornament would have been a reproduction of some of those magnificent two, four or six-horse teams furnished annually by the breed to the Chicago International. The application form for registry is very good, especially in the matter of showing the breeding of an animal made out for four crosses in the extended form. The Society is a joint-stock company, shares in which cost \$10.00 each.

We quote from Sec. Geo. W. Stubblefield's letter as follows:

"I wish to say this Association took over all records pertaining to the Percheron breed on May 9th, 1904. We do not recognize any certificates issued by S. D. Thompson since that date. In other words, any certificate bearing a number higher than 85,912, with S. D. Thompson's signature, is not recognized by this Association. Any certificate bearing a number lower than that with Thompson's signature, stands recorded in the Percheron book. I enclose you a blank certificate, showing the proper signatures, which all certificates should have which are dated since May 9th, 1904. It would save trouble and time if you would not accept any pedigrees that are without the signatures of H. G. McMillen and Geo. W. Stubblefield (president and secretary, respectively), as we are quite anxious to co-operate with

you in anything that will assist to further the Percheron interests in Canada."

The following are the requirements for registration in the Society's book:

First.—Any stallion or mare previously recorded and registered in the Percheron Studbook of France. The original certificate of registration in said Studbook of France must be submitted and exhibited with the application.

Second.—Any stallion or mare whose sire and dam are both recorded and registered in said American Percheron Studbook. A competent affidavit of the breeder, showing all required facts and conditions, must be first presented.

Third.—Any stallion or mare bred in France and enfoaled in America, whose sire and dam are both recorded in the Percheron Studbook of France. The card of service, supported by the affidavit of the French breeder, must be presented with all applications in such case.

IDENTIFICATION.

A description of each animal presented for registration, showing its color, marks, appearance, peculiarities, and any other matter aiding in its identification, shall be contained within the application and recorded within the registration, and in the certificate issued for the same.

A very commendable rule is that an affidavit made before a notary public must be furnished before a duplicate certificate will be issued.

LIVE STOCK.

Our Scottish Letter.

We have been in the throes of a General Election, but so far there does not appear to be much in it, except that the Fiscal policy of Mr. Chamberlain and the nebulous retaliation scheme of Mr. Balfour have alike been condemned with a thoroughness unexampled in British history. One cannot be surprised at the result. The ministry of Mr. Balfour was returned to power in 1900 with a specific mandate—to finish the South African war. The majority he secured on this platform was used by Mr. Balfour to do three additional things, viz., to amend the licensing laws in the interests of the traffickers in strong drink; to pass an Education Bill for England, embodying principles foreign to the instincts of a very large body, if not an overwhelming proportion of the electors of this country; and to authorize the importation to the Transvaal of indentured Chinese labor, under conditions which are always disliked by the British people. Then an attempt was made by Mr. Chamberlain to capture the entire party machine in the interests of what he calls Tariff Reform, and this attempt succeeded in the case of the Liberal Unionist machine. The Duke of Devonshire was expelled from the party, with the result that he threw his whole weight (which more ways than one is considerable) on the side of the party arguing in favor of the status quo. The result has been a condemnation of a ministry unparalleled. Scarcely one of the members of Mr. Balfour's administration have been returned to Parliament. They have been dismissed right and left, in all parts of the United Kingdom, and with them have gone many a stalwart whose seat was regarded as unassailable. Of these there may be named Mr. Henry Chaplin, who for 28 years represented the Sleaford district of Lincolnshire. He has never been anything else

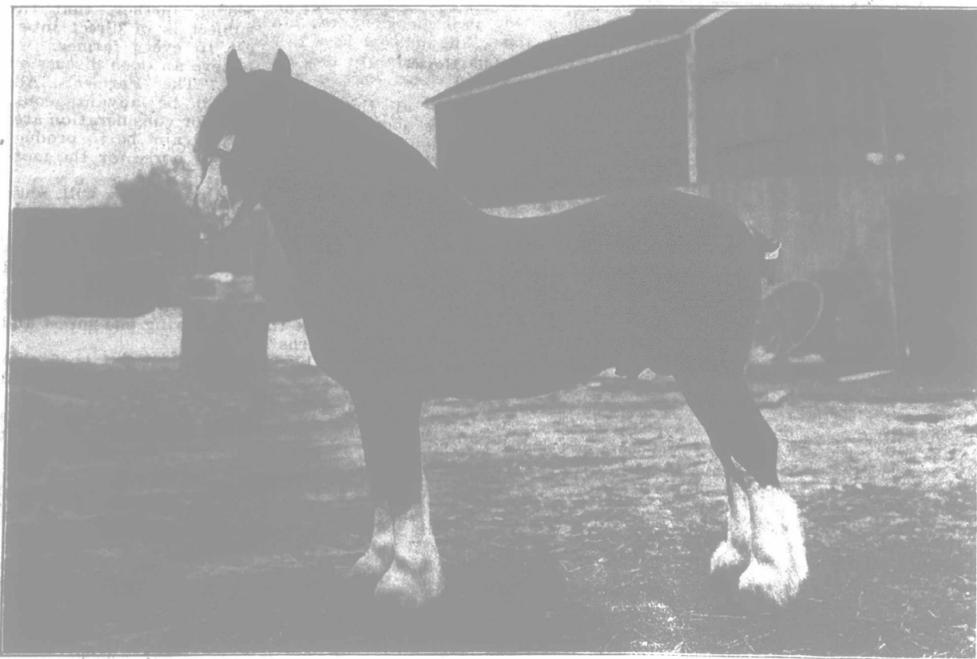
than a protectionist, and would tax wheat even up to a 10s. per qr. duty. His race as a politician is run.

The most disheartening thing about the situation, from an agricultural point of view, is that there is scarcely a man in the new Parliament who knows the A B C of agriculture. Earl Carrington, who is now President of the Board of Agriculture and Fisheries, sits in the House of Lords. He knows his portfolio fairly well, and happily his lieutenant in the House of Commons, Sir Edward Strachey, has been returned for the Yeovil district of Somerset. But the best general and lieutenant can do little or nothing without an army, and the agricultural army in the new Parliament would be difficult to discover. What the upshot, so far as Canadian stores, the Butter Hill and other things may be, no one can forecast. It may safely be concluded that Mr. Campbell-Bannerman and his colleagues will have their hands pretty full for some time to come with bigger interests. They have made a good many promises, the fulfilment of which will occupy some time.

CLYDESDALE REGISTRATION.

I learn from various sources that a movement is on foot in Canada in favor of some drastic amendment of the regulations for imported horses. Clydesdale breeders in this country owe so much to Canada that they are very much disposed to listen to any proposals from your side. As I understand the position, your standard is five registered crosses, with dam and granddam numbered. Our standard is registered sire and registered dam, or three registered crosses, without restriction as to numbering of dam and granddam. What I have heard is that you propose to insist that all imported animals shall conform to your own standard of five crosses. This seems a reasonable enough proposal, and the larger portion of our Clydesdales here would conform to the rule, but a considerable number, on account of our farmers' careless ways of doing things, might be ruled out, and these are often the very animals which it would benefit your people most to get in. It must be remembered that your five crosses are five crosses on anything, whereas even when we have a short pedigree it is only short because of neglect to record, not because the remoter ancestry were not Clydesdale, or, at least, heavy draft horse of some kind. The American Shorthorn regulations may be accepted as a warning to Canadian Clydesdale men not to be rash in this matter. The Americans are not satisfied with the Shorthorn standard which rules in Coates' Herdbook, and have framed rules for imported stock which shut out, amongst others, the whole of the Uppermill Missie tribe. What advantage accrues to America from such a policy it would puzzle the wit of man to discover, and Canadian Clydesdale men, before going forward, should take counsel with the Town Clerk of Ephesus, and do nothing rashly.

It may be useful to review the development of Clydesdale registration in this country. The society and studbook were founded on the model of the Shorthorn Society and Coates' Herdbook, in 1877, and the first volume was published in December, 1878. When the society was started, Mr. Lawrence Drew was at the height of his fame as a horse-breeder. His record sale was that of 1877, two months before the Clydesdale Horse Society was founded. He was breeding Prince of Wales 673 to a few Clydesdales and to many Shire mares, although the latter were not then known as such. At first he was disposed to join the society, and, in fact, he attended its preliminary meetings; but at the crucial moment, when the first council was being formed, he withdrew, and thenceforward, until his death in March, 1894, he was a strenuous opponent of the Society and the Studbook. Had he joined the society, there can be little doubt that he could have dictated its policy in respect of pedigree, and the probability is that he might have succeeded in accomplishing his dream of one draft horse studbook for Great Britain, apart, of course, from the Suffolk breed, whose distinctive character is self-evident. But having chosen another course, the society and Mr. Drew went on different lines. The American demand, which arose in 1880, gave an immense fillip to breeding along studbook lines, and by the date of Mr. Drew's death, in 1894, it became evident that the studbook policy was to win. This end was reached, in spite of the undeniable fact that Mr. Drew had bred many first-class show-yard animals outside the studbook limits, and these were in one form or other distributed throughout the country. Soon the question arose, what was to be done with their produce? Was it wise to let them go outside permanently; was it not wiser to devise some means whereby they could be brought into the breed as defined by the studbook? The latter course was adopted, because it was seen that three registered crosses and seven parts registered breeding were the same thing, although the record did not read quite the same. Hence, the existence in the studbook of pedigrees in which unnumbered sires and dams find a place. A further advance was made about ten years ago, when it was agreed, on the one hand, that after 1893 the registration of stock by unnumbered sires would cease, and on the other, that all horses and mares foaled prior to 1890, showing two registered crosses, would be numbered, and that the standard from 1890 onwards would be three registered crosses. Those who have observed closely when breeding horses, know that on the average mares do not breed oftener than once every two years, and it therefore takes a long time



Young MacQueen [2290.]

Clydesdale stallion, property of The Wellesley Clydesdale Horse-breeders' Association, Wellesley, Ont. See Gossp

to eliminate certain elementary forms of pedigree from the studbook. The idea here is that pedigrees should be allowed to grow up naturally, and hence the comparatively easy standard of three registered crosses. But there is a drawback in working along these lines, viz., that where a high standard is not made compulsory, breeders become careless, and rest content with the minimum; hence the short-pedigreed fillies which your breeders complain about. These have, no doubt, all long pedigrees, if they had only been recorded, and your proposal to insist on five registered crosses will greatly facilitate the work of those who advocate a higher standard here.

The Clydesdale Horse Society had a very prosperous year in 1905, and closed it with a capital of over £3,000. The membership stands at nearly 1,400, and the Studbook volume now in the press is the largest issued for 14 years. The great difficulty here is to get breeders to register their stock. Everybody knows every other body's business, and the necessity for registration does not appeal to the average breeder as it does to dwellers in a new country such as yours.

"SCOTLAND YET."

Indications of Feeding Qualities in Swine.

By Prof. G. E. Day.

It is an extremely difficult matter to convey through the medium of words just what constitutes a desirable type of hog for making economical gains. There has been, however, so much discussion on the question of types of easy-feeding swine, that I am tempted to say something on the subject in spite of the danger of being misunderstood.

In the first place, an animal that can make economical use of its food must have a good constitution. In this connection it is well to remember that a broad, heavy shoulder, and a broad, fat back, do not necessarily indicate constitution. If any person is inclined to dispute this statement, let him reflect for a moment upon the conformation of a good type of dairy cow, as compared with the conformation of a beef animal. There are plenty of beef animals that have broad shoulder-tops and broad backs that are seriously defective in constitution, and there are plenty of cows which have sharp, pointed shoulders and sharp backs which possess constitution to a marked degree. In other words, we must look for constitution to that part of the animal which contains the heart, lungs and digestive organs. No matter how broad a top an animal may possess,

if it has a narrow, cramped chest the indications are that there is a lack of constitution. When we compare a hog of bacon type with one of fat type, we are at first inclined to think that the fat type possesses greater indications of constitution; but when we examine them closely we are forced to the conclusion that the difference in actual thickness through the heart is more apparent than real. If the hog stands with its front legs reasonably well apart, has reasonable depth between and back of the fore legs, and good thickness through from side to side at this point, the chances are that it will possess good constitution, though the top of its shoulder and its back may be comparatively narrow. It is true that when a hog possesses extreme length there is a danger that it may lack in thickness through the heart and in general depth of body. It is just here where breeders of the bacon type have to exercise judgment and care, and make their selections along the line of producing an animal with sufficient length to give a good side of bacon, and yet with sufficient depth and thickness through the heart to ensure constitution. Thus, while the breeder may sacrifice a little of what the packer requires, it does not follow that he must sacrifice nearly everything which the packer requires, and select for a broad, fat back and a thick, heavy shoulder-top, which are not closely associated with the question of constitution.

Another thing which indicates a good feeder, and an animal which will grow as well as become fat, is the quantity and quality of bone. An extremely fine-boned hog almost invariably runs towards fat, and lacks muscular development. On the other hand, an extremely coarse-boned hog may be a slow-maturing kind, and lack the quality of flesh desirable in meat-producing animals. The ideal bone is somewhere between these two extremes in quantity, and the bone in the legs should present a very clean-cut appearance, which is a sure indication of general quality. These strong-boned hogs will grow more rapidly than the very fine-boned type, and will weigh much heavier for their appearance. The pig which tends to produce an excessive amount of fat does not, as a rule, make the most rapid growth, and does not attain so great a weight for its age as the pig which develops bone and muscle along with the fat. A person who is not accustomed to weighing these strong-boned, growthy pigs is likely to make very serious errors in attempting to estimate their weight. We have had many evidences of this on the College farm when different breeds were fed side by side. To this fact may

be attributed a great deal of the popular prejudice against the bacon hog, but the constant use of the scales will have a tendency to break down the most strongly-rooted prejudice.

While a great, fat, heavy jowl is not necessarily an indication of constitution or feeding qualities, at the same time the jowl should have good width between the angles of the jaws, and the jowl should be well clothed with muscle, though not overloaded with flabby fat. A very narrow jowl is often associated with a narrow chest.

Another indication of a good feeder is seen in the width between the eyes and the width and prominence of the poll. A narrow face and forehead, with a retreating poll, generally indicates a lack of feeding qualities. Just why this should be the case it is difficult to say, but experience goes to show that there is a close relationship between the formation of the skull of the pig and its ability to utilize food.

An abundant, straight coat of glossy hair, free from bristles over the neck and shoulder, constitutes another indication of thrift and general quality.

To sum up the matter, we must say that we look for a pig with good depth and thickness through the heart, as well as throughout the lower part of the body generally, though the top of the shoulder and the back may be of just medium width. The length of the pig should not be excessive, but may be plenty long enough to give a desirable side of bacon; the bone should be strong and clean; the jowl wide, but neat; the face wide; the poll wide and prominent, and the hair abundant, smooth and glossy. These, to my mind, are the principal points to be taken into consideration in judging of the feeding qualities of a pig.

I may add that the desire of many feeders to see a pig broad in the back, leads to the spoiling of a great many otherwise useful pigs. Possibly the time when this is most likely to happen is when the pig is from three to four months old. If it is fed in a way to produce an excessive development of fat at this time, it hardly ever recovers from it, and does not, as a rule, make satisfactory growth. We have had a number of promising litters spoiled by the feeder in this way, and we always find that pigs that become overfat when they are three or four months old, seldom go to market at as early an age as pigs which have been fed with moderation, the aim being to keep them in good growthy, thrifty condition, without an excessive development of fat.



The O. A. C. Stock-judging Team that Won the Spoor Trophy at Chicago.

Standing (from left to right)—J. Bracken, Prof. G. E. Day, H. B. Smith. Sitting (from left to right)—W. A. Munro, Prof. H. S. Arkell, G. G. White, H. A. Craig. Prof. Day and his assistant, Prof. Arkell, together with Dr. J. H. Reed, V.S., were the instructors who trained the team.

Noted English Shorthorns of 1905.

Specially written for "The Farmer's Advocate," and illustrated with photos by G. H. Parsons.

The year 1905 was a most eventful one in the history of Shorthorn cattle. The demand for good breeding bulls and females for the Argentine was more marked than ever, and the phenomenal prices realized at sales of imported and home-bred animals in that country give things a particularly rosy aspect which there seems every prospect of continuing. Trade at both public and private British sales has been most buoyant; at Birmingham and in Scotland during the spring a very large number of bulls changed hands, at prices varying from £100 to £600. Two remarkable private sales recently took place, one at Buscot Park, where a draft from the famous herd of Sir Alexander Henderson averaged over £90 for 56 head, and the other at Stratford on Avon, where Mr. Jolliffe's entire herd changed hands at an average of £120 for 30 head. Many other instances could be quoted to prove the keenness of the demand for good cattle, but these isolated examples go a long way to prove that the British breeder of high-class Shorthorns is more than ever to be congratulated on the prosperousness of his position in the live-stock world.

In the show-yard, too, the breed has made a great stand during the past season. In spite of the fact that most of our best animals have found their way into the hands of the exporters for some years past, the shows do not appear to have suffered a great deal, as the magnificent displays at some of the leading exhibitions clearly indicate; true, perhaps, some of the classes, particularly bulls, show a falling off in quality and numbers, but this is easily explained away by the previously mentioned export demand. Then, again, breeders are waking up to the fact that it is useless to send anything but the very best, and these at the top of their form, into a show-ring; far better stay away altogether than be represented by exhibits that would have been better left at home. Quite a large number of animals of exceptional individual merit faced the judges during the summer show campaign, and the following brief notes concerning some of the most prominent of them will doubtless be of interest.

Taking the bulls first, Mr. Robert Taylor's Royal Emblem naturally claims pride of place, if only on account of securing the Royal championship. This great bull, who is a rich dark roan in color, was calved on March 4th, 1901, and bred by Mr. J. Durno, of Rothienorman, Aberdeenshire. His sire was Lord Lynedoch (74900), and his dam Rose of Elbe, by British Leader (60417). Prior to being purchased by that great exporter of Shorthorns, "Baillie" Taylor, of Pitliver, he was successfully used in the herd of the Marchioness of Londonderry. Royal Emblem is a wonderfully thick-fleshed bull, very symmetrically made, with a good top and underline, full and deep thighs, while he shows to great advantage on parade; his somewhat plain head, however, rather detracts from his otherwise attractive appearance. He made his first bid for victory at the Royal Dublin Show in April, where the judges did not see fit to place him higher than fourth; this was, however, followed by four great successes, namely, first and champion at the Royal Northern, first and champion at Edinburgh, first and champion cup at Birkenhead, and last, but not least, he headed a great class of old bulls at Park Royal, and was afterwards awarded the coveted male champion ribbon; the Dublin and Highland champion, Roan Conqueror, standing reserve. This concluded his show-yard career, and he then left for the Argentine, from where reports are just to hand of his sensational sale for £3,230 (\$16,150), in the presence of over 5,000 spectators.

Mr. Richard Stratton had a very successful season with his light roan bull, Great Moyne, who won a number of prizes last year. This animal was bred by Lord Sherbourne, and was got by Majestic (74978), out of Daisy Marie 4th, by Wiltshire Star (63565). He is a massive and very smooth-fleshed bull, with well-sprung, thickly-covered ribs, but his head is lacking in gaiety of carriage, and he is not one of the most pleasing behind the shoulder; however, he has many points to recommend him, and is certainly one of the best old bulls that have been out this year. At the Somerset Show he was placed first, at the Gloucester Show (Cheltenham) first and champion, at the Nottingham meeting of the Bath and West and at the Welsh National at Abergstwith he again headed his class, being also champion at the latter.

Doynton Brave Archer, shown by Mr. J. Deane Willis, was certainly the best two-year-old of the year; in fact, he is one of the best bulls of his age exhibited for a considerable period. Bred by Mr. J. Lear, of Doynton, Bristol, he was sired by Chewton Brave Archer (78578), his dam being Anemone 34th, by Viceroy (73614). This beautiful roan is a very stylish sire in every respect, being particularly good in his back and middle, though, perhaps, not quite faultless in his head and just over his tail; he possesses a thick, mossy coat, and carries himself in that majestic manner so much admired in a high-class Shorthorn. Doynton Brave Archer did very well at the shows of 1904, but this year he easily eclipsed his previous record, being first and champion at the Somerset, first at the Wiltshire, first and champion Royal Counties, second and reserve champion at the Bath and West, and first in a strong class at the Royal, where he was afterwards purchased at the auction sale by Mr. F. Miller, for 1,000 guineas.

Mr. J. Deane Willis, whose herd at Bapton Manor, in Wiltshire, has a world-wide reputation, was also very

much to the front with his yearling bull, Orphan Chief. This son of Circassian (80283) and Orphan Star, by Star of Ulster 73727, was bred by Mr. L. Bonis, in Ireland, and is a very smart youngster indeed, being straight in his lines, carrying his flesh in the right places, and a good dark roan in color. He was only beaten once, and this at the Royal, where he was placed second; first prizes falling to his lot at the Somerset, Wiltshire, Royal Counties (and Shorthorn Society's special prize), Bath and West, and Highland Shows.

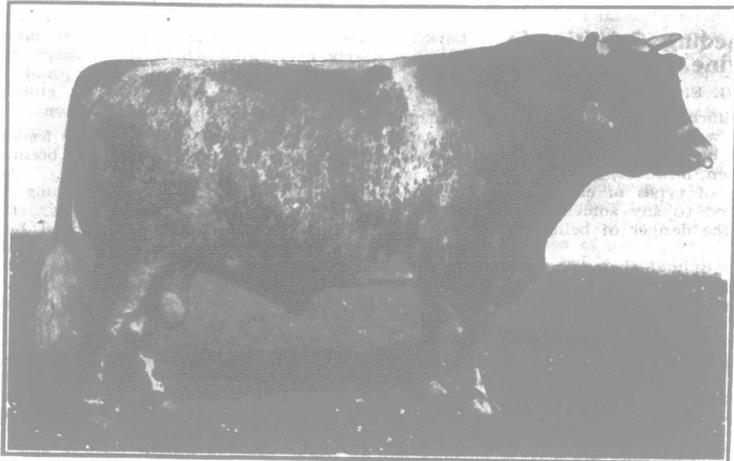
Coming to the females, we find Mr. F. Miller's peerless heifer, Lady Amy 7th, who had been purchased by him from her breeder, the Earl of Powis, again at the top of her form. It will be remembered she was undefeated as a yearling, and this season came out looking as well as ever, and about as near perfection as it is possible to get in a show animal. At the Royal, Dublin, she was an easy first, and one of the group that won the Leinster cup; at Belfast she occupied the same position, and also took the Jubilee Vase for the best Shorthorn, after taking firsts at Shrewsbury and Birken-

also produces some grand milkers. The roan non-pedigree Shorthorn dairy cow, Dot, whose portrait appeared in "The Farmer's Advocate" of January 25th, is probably one of the most perfect dairy cows of any breed that has ever been seen. She has been exhibited with conspicuous success by her owner, and has gained the following honors: 1903—First, London Dairy Show; first, Kendal; first, Altringham. 1904—First and 50 gs. cup, Royal, Lancashire; first, Great Yorkshire; first and two cups, Cheshire County; first and champion, Altringham; first, Mid Cheshire; first and champion, Middlewich. 1905—First and champion cup, Royal, Lancashire (outright); first, Great Yorkshire; first and cup (outright), Cheshire County; first and champion, Middlewich; first, Mid Cheshire; first and champion, Altringham, and numerous other prizes.

Outlook for Sheep Husbandry.

By H. S. Arkell, B. S. A., M. A.

The rise and fall of prices, the ebb and flow of the tide of trade is a recognized fact of commercial life. With a finger on the pulse of the market, the ability to relate one's business to the demands of the present, and the courage of patience and resourcefulness to prepare for the demands of the future, is a talent that should ensure success in the life of any man, be he farmer, tradesman or manufacturer. A stockman who takes advantage of a dull year to strengthen or improve his breeding flock, and refuses to breathe the atmosphere of discouragement and impatience under which his neighbors are going down to failure, is



Royal Emblem.

Champion Shorthorn bull, Royal Show, 1905.

head, the female championship was awarded to her at the Royal, in London, and she finished up by securing the Derby £50 cup, for best cow or heifer at the Royal, Lancashire, as well as first in her class. Lady Amy 7th is by Cornish Knight, out of Lady Amy 5th.

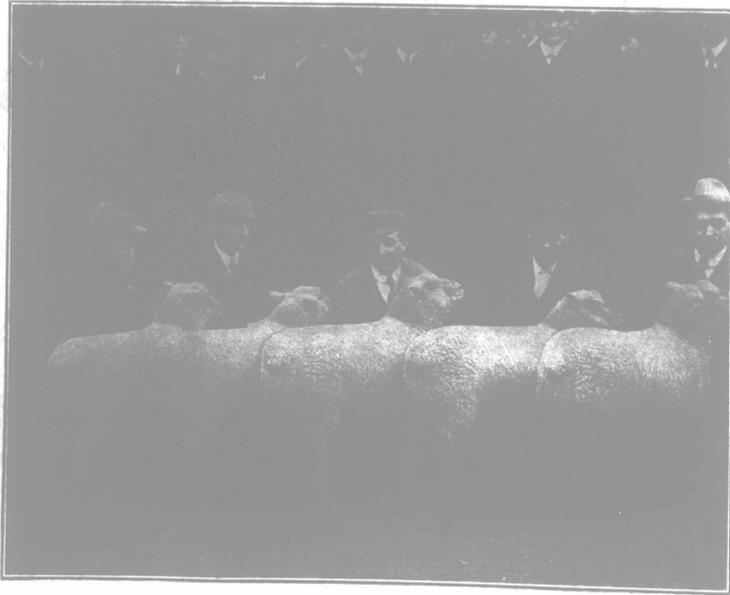
To a comparatively new exhibitor, Mr. A. A. Haily, of Malton, Yorkshire, belongs the credit of sending out the best yearling heifer of the season. This is Bright Jewel 6th, a roan daughter of the great breeding bull, Sir George (77891), and Bright Jewel II., by Life Guard; her breeder being Mr. T. Waind, of Ackness. She was first at Otley; first, Lincolnshire; first, Bath and West; first, Yorkshire; h. c., Royal; first, Birkenhead; first, Royal, Lancashire; first and female champion, Highland. Bright Jewel 6th is a very perfect heifer at all points, carrying a wealth of flesh; she is a beautiful handler, and her sweet feminine outlook displays a great deal of character. This heifer has been sold at a long figure for export.

The Shorthorn is pre-eminently a beef breed, but it

wise in his day and generation. The sheep owner and breeder who, not despairing of the revival of the sheep industry, has, during the past few years, by judicious selection and breeding, maintained or increased the quality of his flock, is now reaping the reward of his hopefulness, and is in a position to take the largest advantage of the brisk demand and high prices of the present time.

"Record marketings at record prices" is the reporter's summary of the situation at the Union Stock-yards, Chicago, for 1905. In all, during the year, 4,738,748 sheep were marketed, which in a grand total, is 234,000 more than in 1904. The top price for wethers was \$6.25 per cwt. The demand for breeding ewes throughout the States has, during the past year, fully doubled, and there were by no means enough feeder sheep to supply the demand in the corn-belt and on the range. One feature of the Chicago market

was the presence of Canadian lambs, one lot selling in November last for \$7.25 per cwt. The past year has also been a profitable one for the wool-grower, present prices being abnormally high. With the impetus given to the sheep industry by the active demand for wool and mutton, and because of the general prosperity of the country, the opinion prevails among high authorities that the breeding and feeding of sheep will be a profitable business for the next two or three years at least. For breeding purposes, sheep selected from Canadian flocks are particularly popular in the United States, and Canadian farmers ought to be in a position to reap a rich harvest through trade with their cousins across the



Pen of Southdown Wether Lambs.

Awarded grand champion prize for best pen of lambs, any breed, grade or cross, International Show, Chicago, 1905. Exhibited by Sir Geo. Drummond, Beaconsfield, Que.

line. The presence of sheep on the farm, moreover, assists the farmer wonderfully in keeping his farm free from weeds, and in maintaining the fertility of the land. Finally, the prospect of profit in the sheep trade is better now than it has been for years, and the outlook is promising to those who have retained their faith in the sheep as the farmer's friend.

How Long will Hog Prices Hold Up?

The extraordinary prices lately prevailing for hogs have induced a large number of farmers to go in again for this branch of live-stock husbandry, and the countryside is being scoured in search of breeding sows. The effect will probably be another oversupply, with attendant low prices. Just how soon values will get back to an unprofitable basis is more than anyone can say, but our advice would be, to any farmer who has or can get a good breeding sow, to put her to the boar, in the reasonable hope that her progeny may be marketed before prices get down low. At the same time, we anticipate a slump in the not distant future, and sound advice to the man who thinks of embarking extensively in the business on the strength of present prices, is: Wait till hogs are flat, then select some choice sows when they can be had cheap, breed them, and sell their produce on a rising market. By this we do not wish to be understood as approving the plan of changing about in turn from one line of farming to another, nor do we approve the plan which a number have expressed an intention to follow—of going in for hogs as a specialty. Such a system makes insufficient provision for utilizing the farm forage. The most profit is made by keeping hogs as an adjunct to some other line, particularly dairying, and there is room in Ontario for an immense number kept in this way. The best practice in hog-raising is to keep turning off a few every year, high prices or low, but planning to breed a few extra when prices have for some time been low, for nothing has been more emphatically repeated by experience than that high prices follow low. The only real problem is to tell just when the tide is ready to turn, but one will not go far astray if he watches closely how the crowd is going, and quietly moves the opposite way.

Advanced Registry of Shorthorns.

To the Editor "The Farmer's Advocate":
The questions propounded under the heading, "What of the Dairy Shorthorn," in your issue of February 1st, are certainly important ones, and the whole matter is worthy of very careful consideration. To my mind, there is a place in this country for the strictly beef-producing Shorthorn. Such animals are of great importance in improving the beef qualities of the common stock of the country, and I think it would be a mistake to admit anything which would tend to draw attention away from this important quality in Shorthorn cattle. At the same time, we know that many cows which are famous for the excellence of their calves from a beef standpoint, are also heavy milkers. We find good milkers among both the so-called fashionably-bred and plainly-bred Shorthorns, and wherever the ability to give a large flow of milk exists, it adds greatly to the value of a cow in the esteem of the thoughtful breeder. Such being the case, it would appear advisable to take some steps towards giving prominence to those Shorthorns which possess the accomplishment of giving a good flow of milk. At the present time there is a lively demand for milking strains of Shorthorns, but seekers of this class of cattle have great difficulty in finding what they want, and it seems to me that Shorthorn breeders can do a great work for this grand breed as a whole, and greatly assist the efforts of those who are making a specialty of milking strains, by furnishing a means of bringing these useful cattle more prominently before the public.

How shall it be done? Should we establish a separate record? Certainly not. The multiplication of records simply leads to confusion, and I should be very sorry to see a separate herdbook established, or anything done which might lead to a division in the ranks of Shorthorn breeders. But would it not be possible to start a sort of "advanced registry" on similar lines to those followed by certain dairy breeds? Under such an arrangement all Shorthorn cattle would still be recorded in one book, but those which came up to a certain minimum standard in point of milk or butter production, would have their names and records entered in a special publication, which could be printed as an appendix to the present Shorthorn Herdbook. Of course, all tests would have to be made under official inspection, as official tests of dairy cattle are made. Such a plan would entail but very little expense, would prove an incentive to breeders to pay more attention to milking qualities, and would place the business of breeding milking Shorthorns upon a much surer foundation. Possibly, Mr. Editor, my suggestions are not practicable, but I would like to start someone thinking, and to draw out further discussion if possible.

Ontario Agricultural College. G. E. DAY.

A Study of Breeds of Swine.

CHESTER WHITES.

The Chester Whites originated in Chester County, Pennsylvania, and are probably the oldest of the breeds of purely American origin. The foundation stock used in the establishment and improvement of the breed appears to have been large white hogs found in that part of Pennsylvania, which were probably descended from the old English White breed, the ancestors of the Yorkshire and other white breeds. The first attempt at improvement of the white hogs of Chester County appears to have originated in the importation of a pair of White pigs from Bedford, England, by Capt. James Jeffries, of Westchester, Pa. Improvement since that time appears to have been more or less continuous, and has been greatly advanced by selection and, more recently, by breeding to a standard. Formerly they were coarse in the head, bone and hair, had large, pendant ears, a large, coarse tail, and lacked smoothness of form. These coarse features have been eliminated in a marked degree by selection and intelligent breeding, and they have been transformed into a smooth and symmetrical breed. While they are yet among the largest of the breeds, British or American, their size has been somewhat lessened by the process of refinement, but, as bred in this country, they answer well for the markets of the present day, which calls for large development at a comparatively early age, and they possess in a fair degree the quality of early maturity. They are a hardy, vigorous breed, possessing strong constitution, good bone, strong limbs, are well adapted to summer grazing, and will stand heavy feeding well in the finishing period. They are valuable for crossing upon grades small and over-refined, and the sows, bred to Berkshire or medium-size



A Chester White Sow.

Yorkshire boars, produce an excellent feeding class. Chester White sows are prolific, and are excellent nurses, as a rule.

Some of the principal points in the standard for judging Chester Whites are: Head—Short, broad between the eyes, and tapering from eyes to nose. Face—Slightly dishd. Ear—Not too large, drooping, thin, pointing outward and forward. Neck—Moderate in length, full and strong. Shoulder—Smooth, fitting neatly into the body, and straight in line with sides. Back—Straight or slightly arched, strong, and well fleshed, carrying even width back to hams, full back of shoulders. Ribs—Well sprung, deep, coming well down behind forearm. Chest—Wide. Sides—Full, deep, carrying thickness well down to flanks. Loin—Strong and full. Hams—Broad, full, deep, of medium length, coming well down over hock. Limbs—Medium length, short rather than long, set well apart and well under; bone firm, not coarse, pasterns short and strong, foot short and straight. Tail—Moderately small, tapering, smooth, well set on. Coat—Fine, thick. Color—White, blue spots on skin, and black specks do not argue impurity of blood. Action—Easy, prompt and graceful. Symmetry—Uniform build, and all points in proportion. General appearance large, long-bodied, yet strongly built, with good limbs and action.

Registration of Chester Whites is conducted by the Standard and American Associations in the United States, and by the National Record Board in Canada. The registrar is J. W. Nimmo, Department of Agriculture, Ottawa.

Eating frozen silage is a fruitful cause of indigestion in cattle, just as frozen bread is injurious to human beings. On account of the succulence of silage, when it is eaten in a frozen state a large quantity of ice is taken into the system. This has to be melted, and the temperature of the water raised. Meanwhile, the secretion of digestive juices is checked. It is better to feed dry corn fodder than frozen silage. Leaving the stuff in a pile will usually serve to set up a fermentation that will thaw the frozen portion, but if it doesn't, hot water should be used.

Refuses to Join the Stampede.

To the Editor "The Farmer's Advocate":

The present phase of the hog question reminds me of the diverting history of John Gilpin, who, after going farther than he intended, as he was returning, had the cry of "Stop thief!" shouted after him, when lo,

"All and each that passed that way
Did join in the pursuit."

Everyone is after the packers just now, hot-foot, and possibly they can stand a little chasing. I am not prepared to say that they are making more than they should, but it seems to me there is a great deal of nonsense indulged in.

For instance, the demand that a uniform price be paid for the whole year is an unreasonable one. It would be impossible to tell what the price might be a year ahead, and then the bulk of hogs raised would be rushed on the market at a time of year when it is generally considered they can be finished the most economically.

Mr. Freeman complains of the price paid of late years, declares a great many have quit raising hogs, and many more are likely to do so. I confess I see no just reason for the scare. If 5 1/2 cents is a paying price, what about 7 cents? I am convinced I have made more money out of hogs than any other kind of live stock, considering the money invested and the cost of food consumed. I decline to join the stampede. I intend to stay right where I am. I remember selling a load of hogs for \$3.75 per cwt., and kept right on. I fail to see just cause for stopping at the present time. I would like to take exception to the prices of food quoted by Mr. Freeman. He speaks of oats being worth 45 cents a bushel, and mangels 10 cents per bushel. The times when oats for feed bring 45 cents a bushel are very few indeed; they certainly are not that high now. Mangels have been sold in this district at auction sales, and by private sale as well, for 5 cents per bushel. I think Prof. Dean's estimate of prices about correct, rather above than below the average, viz., \$1.00 per cwt. for chop, and 6 cents per bushel for mangels. But, granting that feed is high this winter, won't we get the same price for our grain sold in the shape of pork, when chop is \$1.25 per cwt., that we would when chop was only \$1.00 per cwt., providing pork was the same price both times. If we are losing money by feeding hogs when grain is dear—and we only do so comparatively speaking—would we not be greater losers by quitting hogs then, to begin again when the price of grain came down?

There is another claim put forth very strongly at present that I cannot agree with, that is that the short, thick hog is the most profitable one to raise. My experience would lead me to the very opposite conclusion. I shall stay with the long hog for the sake of profit. At the same time, I think a farmer ought to be paid according to quality. It is surely unfair to give the same price for short, thick hogs that is given for A 1 singers.

The farmers of Ontario owe the pork-packers and the pork-packing industry a debt of gratitude. I should be very sorry indeed to see this great and profitable industry break down, and I strongly suspect that (all that has been said to the contrary notwithstanding) the great bulk of the hog-raisers are quietly deciding to go on in the even tenor of their way.
ADAM BATY,
Middlesex Co., Ont.

The Ship and the Farmer.

The American Bankers' Association has enthusiastically recommended a ship subsidy. The same association, we believe, heartlessly derided the late Senator Stanford's plan to establish a vast system of Government warehouses in the agricultural regions, the treasury to lend its surplus to farmers at low interest on the hay, wheat and garden-sass stored in the warehouses.

This shows the great part that sentiment plays in business. You cannot get up any romantic fervor over the farmer. You cannot picture him going into action with the Stars and Stripes nailed to his mizzen-mast. He plows the cornfield; not the briny main. So why should the Government make him Christmas presents? With the shipbuilders it is entirely different.

The real argument is that ocean rates are now so low that ship lines must receive Government bounty in order to operate profitably. In other words, foreign Governments pay large sums out of their treasuries in order that our goods may be carried over seas at low rates. In all other directions it is considered good policy to let the other fellow do the business that nets a loss. But not on the vasty deep. We should have a merchant marine in case of war. True, under modern naval conditions the principal use in war of a merchant marine is to furnish targets and prizes for the enemy's battleships. But think of the glory! If we should go to war with a first-class power to-day her cruisers might scour the seas without finding over half a dozen American merchant ships to knock holes in. This is certainly a humiliating position.—[U. S. Exchange.

THE FARM.

A Well-ventilated Barn.

The accompanying basement plan illustrates a simple, compact and convenient barn, 82x84 feet, for beef and dairy cattle and horses, in satisfactory use for several years past on the farm of Messrs. D. and M. MacVicar, South Dorchester Township, Elgin County, Ont. The basement walls are built of large bricks, with a cement concrete footing. It is all under one roof, but a solid brick wall separates the horse and cattle stables, and aids in supporting the superstructure. The space for vehicles ("drive shed" on plan) is 34x36 feet, and the horse stable, 36x46 feet; cattle stable, 46x82 feet. The cattle stable houses 80 head very comfortably; the stanchions tying 50 head of full-grown cattle, 25 in each row, and the box stalls accommodating about 30 head of yearlings. Except in the "drive shed," all the floors, including gutters and passages, are cement. The upper part of the horse stalls is finished with $\frac{1}{2}$ round iron, which allows a free passage of light and air. For all the horses tilting mangers (hinged at bottom), with one slat opening in bottom to let dirt and chaff work through on to the floor, are used. The cattle box stalls are also fitted with these swing mangers. The horse box-stall doors are 4 $\frac{1}{2}$ feet wide. Manure sleds and horses are used to clean out all the stabling. The stables are well lighted, with 29 windows of 9 lights, 10x12 inches each, three in the upper sash, every other one of which are hinged at bottom to be opened if desired, and six lights in lower sash. Two large chutes from above bring hay and straw into cattle feed alley, and one in the horse feed alley. From the granary above smaller chutes carry chop to the cattle alley and oats to the horses.

An outstanding feature of this barn is the ventilation system. On the peak of the north end of the roof is a large cowl, which turns to the wind, connecting with a galvanized iron pipe, 30 inches in diameter, which extends down through barn to a wooden box 3x6 feet, and about 10 feet deep, which opens into a cement hole 6 feet square below stable floor, marked "air" in cut. From this hole six 12-inch tiles, 6 inches below floor, run out in three different directions, carrying fresh air to all parts of the stables. To raise its temperature it is made to travel as far as convenient under the floors before the big tiles are tapped on the upper sides about every six feet with four-inch tiles, through which the air empties in front of every pair of cattle and into all the box stalls. Wooden boxes by the walls are provided in the latter for the purpose, with openings on side, covered with strong wire netting. The front of the cattle mangers are made of inch boards, inverted-V shape, about 3 ft. high, and the tiles open into this throughout, and the air passes out

through openings also covered with netting. The writer examined nearly all of these openings, and without exception found a good current of fresh air pouring out. The moist, heated stable air passes upward through the three large feed chutes. The proprietors think the system might be improved by more exits at the ceiling, but state that, as it is, the stable air in the morning appears almost as fresh as when closed up the evening before, although the basement is filled with cattle. Last winter the temperature of the air coming in was raised from 20 below zero outside, to 10 above at the tile openings. The owners are well satisfied with the expenditure of a couple of hundred dollars to attain such results in ventilation. In the cattle stable three pairs of the large tile are in use, in order to provide a sufficient volume for the cubic-air space of the stable. In the plan they are shown by dotted lines. On returning from south end under feed alley, one of these tiles just runs half way along, and then its mate crosses in and takes its place the rest of the distance. This is practically the system once described and recommended in "The Farmer's Advocate" by Prof. J. B. Reynolds, of the Ontario Agricultural College. The stable ceilings are eight feet high. The cattle are turned out to water, but a system of inside troughs is contemplated. There are doors into the manure passage way from all the box stalls, so that they are easily cleaned out. A silo is to be erected next season at north end, opposite feed-alley door. Considerable space for root storage could be provided if a covered approach were constructed on east side of barn to the upper barn floor, and a door made through wall into one of the box stalls. There are no partitions in this basement to obstruct light, and labor has been reduced to a minimum. In these days this is all-important.

The lay-out of the upper part of the barn is also simple. One barn floor 21 feet wide runs from west to east, the approach being from the former side. All across the north end of the barn is a bay 26 ft. wide, and south of the floor two bays 14 feet and 21 feet wide, respectively. Out of the middle of these is taken the granary, 24x35 feet. From floor to barn peak is 46 feet, and three car tracks are used for unloading hay and grain. The roof has about 1-3 pitch and 51 ft. rafters, and is supported by four purlines. There are three large house windows in each end of barn, and two to light the barn floor.

Case of Cause and Effect.

You will find enclosed a cheque for —, being payment for advertising of my sale. I think the money was well spent, as I shipped to buyers from a distance 22 animals out of 42 animals. It appears to me that those who want good stock are subscribers of your paper.

HENRY B. WEBSTER.

Wellington Co., Ont.

Cement-Silo Building—Frozen Corn.

To the Editor "The Farmer's Advocate":

I have read with interest and profit the articles in your much-esteemed journal about silos and silo-building, and while the information was excellent, your correspondents did not cover all the ground. In January 18th issue a writer told of farmers in his locality building silos of nine inches thickness at the base. I would like very much to hear from some of those men who have built and filled silos of this kind. It is a clear saving of thirty per cent. in gravel from the kind mentioned in the letters of January 11th. This would make a good round sum saved from each silo if the proportions of cement and sand were the same in each case. Our silos here are thirteen inches at the base, and plastered inside and out with one part fresh lime, one part cement to four of sand. They claim this adheres better than cement and sand alone. We get one 12 $\frac{1}{2}$ feet diameter, and 35 feet high, built and finished as above for \$170; we have to furnish one man and a team to assist. Here I might say that I would advise anyone going to build, not to make their silo less than 14 feet in diameter. The same gang will build it in the same time as one smaller, and it can be filled in a day too, so that there is some economy of labor; the smaller one always spoils the day, and you have to make it good to the help, while you never get the full day's work. I am not in favor of putting in stone on a cement wall. I can't see how anyone can pack gravel tight to the bottom side of a round stone. It is my opinion the wall would be better made an inch or so thinner, and the stone left out. I am much in favor of a roof, and it is a good plan to build a box in the roof, with the back end about four feet from the door; then, on filling day, have the blower pipe come up near the roof—say, three or four inches—and this will drop the corn in the middle of the silo, and is very handy for spreading. One man can easily do it. Some here have a hopper, with a long bag attached, and keep it moving around, but I have noticed the bag doesn't last long, and I don't want to be the fellow who has to attach a new one. I have found it very convenient to have the straw cut to the end of the barn where the silo is, so when you want to mix it with the corn, one can go in the silo and one in the straw; then by throwing down forkful about it will mix as well as if it is put into the stable, and done layer about, and much quicker.

There is a good deal of talk about clean gravel for cement work. Well, Mr. Editor, I put river gravel into mine, and it seems as good as any I have seen. Let anyone who has good river gravel set some of it on a box for a test, and if it sets all right there I would not hesitate to put it into a wall of any kind. The gravel must be evenly mixed, large and small, or it will not be as strong as it ought to be; the coarse stuff will not lie close enough to hold well.

Some one asked some time ago about putting in dry corn, and the best method of adding the water. I would like to answer here, and give some of my experience along that line. My corn this year was frozen in the milk stage. I cut it two days after, and it was six days after that before I got it to the silo. I had it shocked up, and as the weather was very warm it got pretty dry. The bundles only seemed about half the weight they were when I shocked it. Men were scarce, and with much fear and trembling I put it in as it was, and, sir, I am well pleased with it, so much so that in future I intend to shock it a few days each year. This might not do for well-matured corn. Frozen corn has lost all its terrors for me, and I would say that even frozen corn is excellent feed.

The best method I have seen for wetting the corn is a barrel or milk-can set full of water near the intake of the fans of the blower. Set the can a little higher than the fans. Take a hose (it must be air-tight), fill it with water; it must be long enough to reach the bottom of the can inside and out when doubled over the side. Drop one end into the can and fasten the other end near the fans, and as the water runs out the fans will draw it and distribute it with the corn. The end can be made larger or smaller as desired with a string.

Bruce Co., Ont. R. B. C.

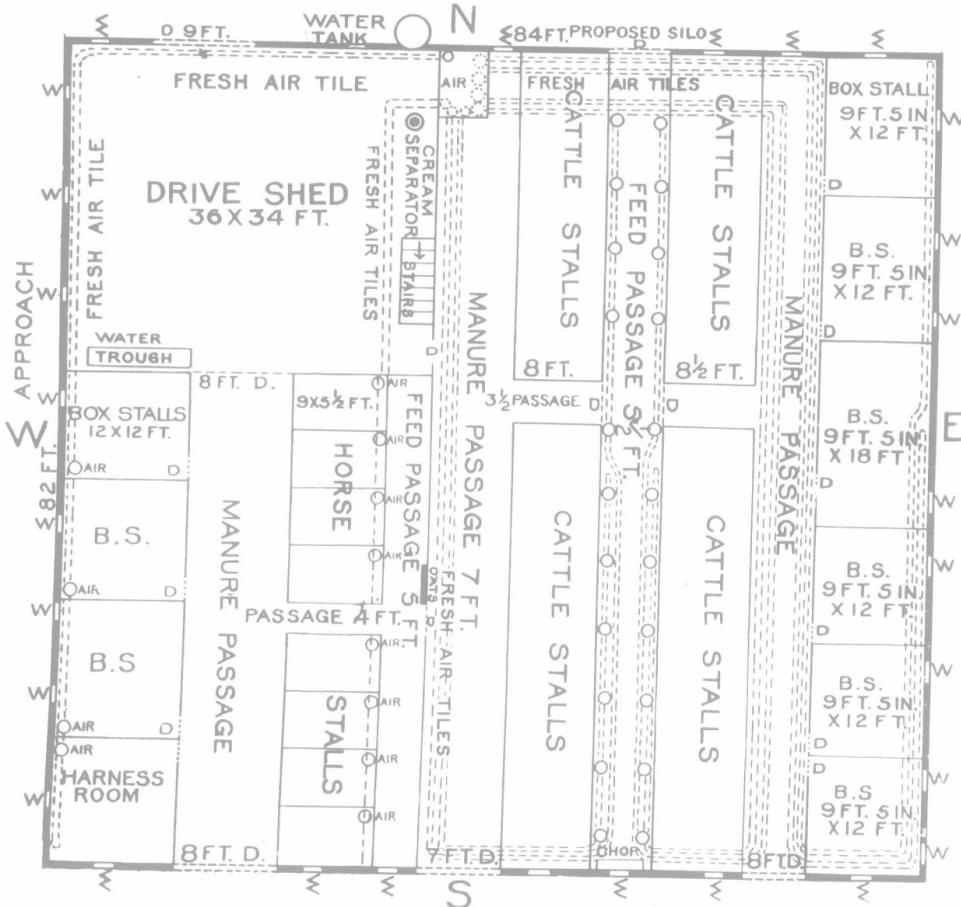
Pointers on Building Round Cement Silos.

The commonest dimensions for round cement silos are 12, 14 to 16 feet in diameter, and 30 to 35 feet in height. In building the wall, we have lifted the steel rings as often as three times in one day. This would build 7 $\frac{1}{2}$ feet; but if we build 5 feet we think we are doing well. I like scaffolding on the outside best, say eight poles about five feet from silo all around the outside, with tie poles from one to the other to lay plank on. I like to raise concrete in barrow from outside with derrick or gin pole. When I build a very large silo, say 20 feet in diameter, I build from inside; raise scaffold every three rings. No stones should extend through the wall; they would prevent one from making a nice smooth job, and also let the frost through much more readily.

A. E. HODGERT.

I received the premium Bible and Knife all right. They are much better than anything I ever expected. I will try to get you some more few subscribers for your paper.

Norfolk Co., Ont. WM. HANSELMAN.



Basement plan of a well-ventilated barn for dairy and beef cattle, on farm of D. and M. MacVicar, Elgin Co., Ont. By error of the engraver's artist, the 4-in. openings through which air is admitted into the stables are shown larger than the 12-in. tile underneath, and no openings are shown from the tile in the row of box stalls along the east side.

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Some Barn Plans Re-published.

Scarcely any topic is of more general interest to our readers at this season than barn plans. We are constantly receiving requests from readers to publish plans suitable for their purposes. It is out of the question for us to answer each one specifically, but we herewith give three plans of different styles, which we think pretty good, and which may give helpful suggestions to those intending to build. They have been selected from among a large number that we previously published. New plans will also be printed from time to time.

The Tillson barn is for dairy cows and calves only. It is not suitable for the average farmer, perhaps, but for a large herd of cows it commends itself as simple, convenient and roomy, there being accommodation for 75 cows. A modification of it might suit some large dairymen. Descrip-

tion appeared in "The Farmer's Advocate" of July 1st, 1896.

The barn of J. P. Beattie is intended for beef cattle, but would answer for any kind, and there are shown also horse stable and carriage room, attached to the barn, but not in it—a good feature—and pigpen, the whole outfit, in fact. Approaches to barn floor are from both sides, over box stalls, which it was proposed to build underneath. A sheltered yard is possible with this arrangement. This plan was published, with description, January 15th, 1902.

We give the plan of J. H. McLary's barn, because it is suited for a hundred-acre farm, and also because of its extreme simplicity and its convenience. Here, also, driveways are utilized for box stalls. This plan, with description, will be found by those who have preserved files, in our issue of January 15th, 1903. Unfortunately, we are not able to supply copies of the above papers, but anyone sending us one dollar may obtain a typewritten copy of the original description of any one barn.

A Strong Case for Woodland Exemption.

I approve of legislation which shall not only check the rapid destruction of forest growth on our poorer soils and rougher lands, but will go far enough to encourage the farmer to re-clothe all such unsightly landscape and unprofitable soils as should never have been uncovered. I go farther: I urge that the intelligence and wisdom of the whole Province may rise in its might and demand that something be done to avert the ruinous consequences that must follow in the wake of an over-clearance of our Province.

This great question of the maintenance of the proper relation of cleared and wooded lands is of public import, as many an older people has proven to the world, and the people of Ontario should hesitate before they add another proof of a known law at their heavy cost. Since, then, the question of the conservation of a proper percentage of our lands in woods is of public interest, I believe the intelligent public will back up a judicious expenditure of public moneys on:

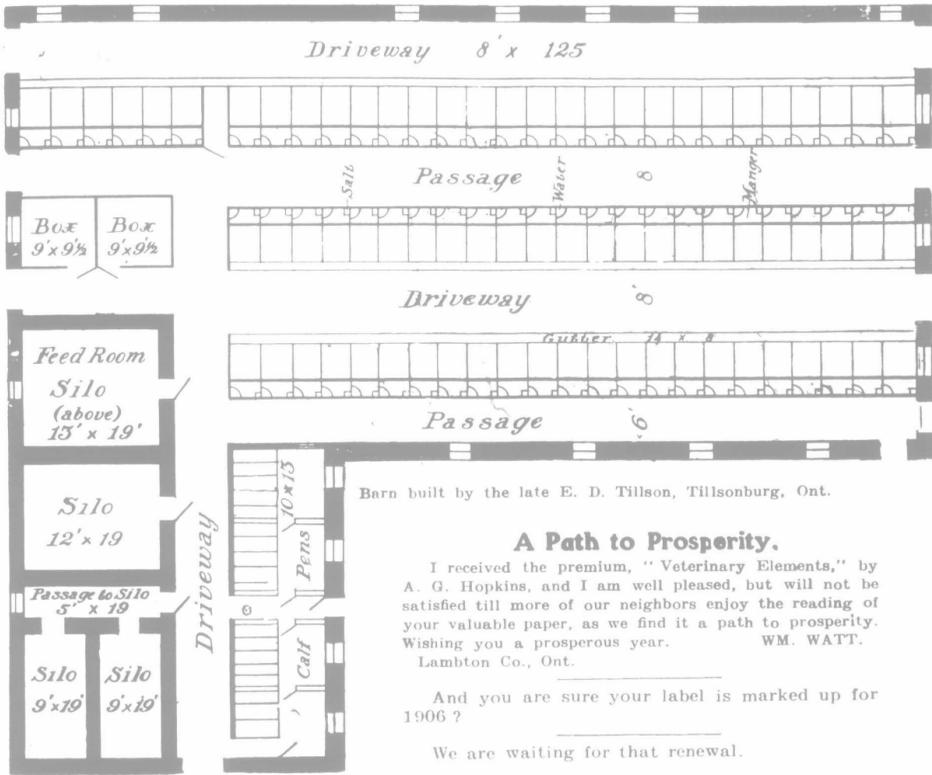
1. An educational propaganda all over this Province.
2. The furnishing, free gratis, if seedling trees to all who will plant them according to approved plans and conditions.
3. The exempting from taxation all lands set apart for future forest growth under approved conditions, without any exception as to kind of trees or percentage of or total acreage of single ownership, only so the growth shall fulfill its purpose from an aesthetic, climatic or economic standpoint. Such exemption to become immediate law in all townships, the returns of which show less than twenty per cent. of the acreage in woodland, leaving it as local option only to the municipalities having more than the allotted percentage. Even where there has already been an over-cutting of wood there is very likely yet some fertile farming land under forest growth which will be cleared away in good judgment. The purpose must be to conserve the wood growth on the poor and rough land, and re-forest such as should not have been cleared, and to this end there must not be any restraining or hindering obstacles.

Education and self-interest will decide what varieties of wood the individual will grow; the public interests will be satisfied if a forest growth is maintained.

While some farms are too productive of farm crops to be used for wood-lots, others have under tillage a large percentage of land that does not give adequate returns for labor invested; besides, the buying and selling and subdividing of farm property would bring about some very provoking and unsatisfactory conditions, if there should be restrictions of percentage exempted; either of land or per owner of individual property. So I will close, by commending anything and everything you may do, through the effective medium of "The Farmer's Advocate," to agitate and bring about legislation to encourage a replenishing and conserving of our forest wealth. Our valuable land will not return to the woods; our poor and broken lands cannot return too soon.

Waterloo Co., Ont.

ANSON GROH.

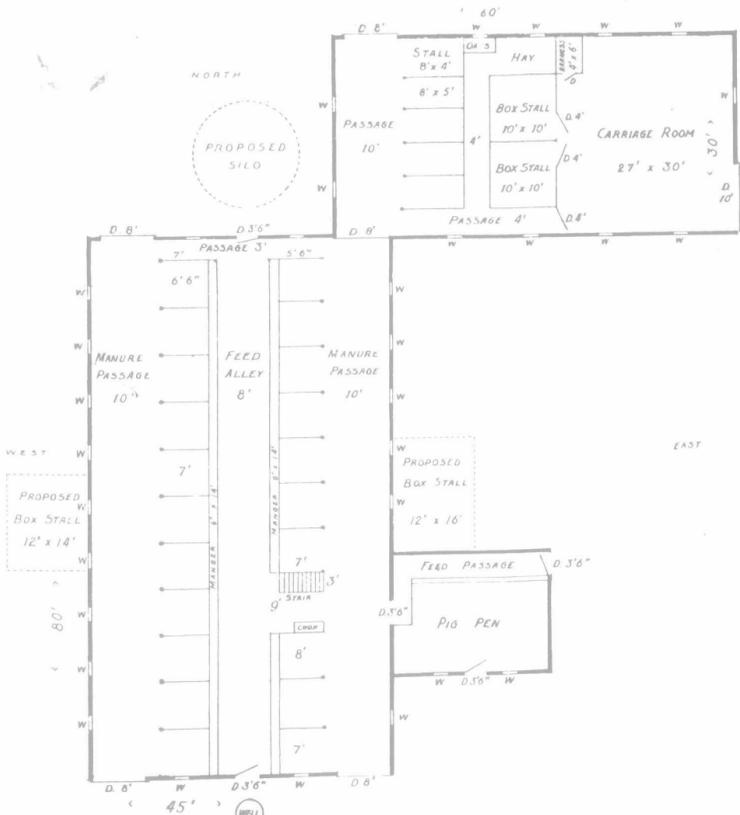


A Path to Prosperity.

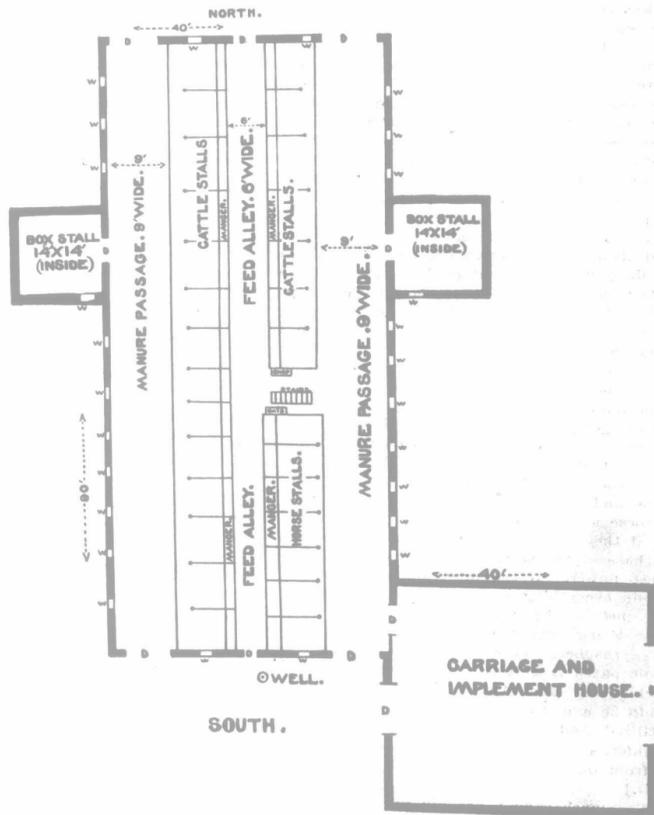
I received the premium, "Veterinary Elements," by A. G. Hopkins, and I am well pleased, but will not be satisfied till more of our neighbors enjoy the reading of your valuable paper, as we find it a path to prosperity. Wishing you a prosperous year. WM. WATT. Lambton Co., Ont.

And you are sure your label is marked up for 1906?

We are waiting for that renewal.



Barn of J. P. Beattie.



Basement plan of J. H. McLary's barn.

The Cross-pollination of Plants.

By Eunice Watts, Auburn, N. S., with notes by Mr. John Dearness, London.

In order to understand anything about the cross-fertilization of plants, we must first learn the structure of the blossoms. If we examine an apple blossom, we find underneath green leaves, called sepals; above these are five petals, the most conspicuous part of the flower, while in the center rise the pistils, which are surrounded by a whorl of stamens.

The sepals are persistent, protecting the blossom bud before it opens; in the apple they form the five tiny appendages round the eye of the fruit. The petals fall soon after the flower has been fertilized, their mission being to attract the insects. The stamens are modified leaves, consisting of anther and filament, corresponding to leaf stalk and blade of ordinary leaves. The anthers are divided into four chambers, in which are produced the pollen grains, or fertilizing dust. [Ganong, in "The Teaching Botanist, page 147, says: "Another common error is that of attempting to homologize the parts of the stamen and of the carpel with the parts of the green leaf."—J. D.]

The stamens and pistils, although generally the most inconspicuous parts, are really the most essential. The pistil is also a modified leaf, though it is difficult to realize this; it is composed of three parts, ovary, style, and stigma.

The ovary is a partitioned cell, in which grow the ovules, or rudimentary seeds; in different plants it varies in shape and size. The ovules are attached to the ovary wall by a tiny stalk, and they eventually become the seeds when fertilized.

The style is not present in all flowers, but its use is to elevate the stigma, and to secure pollination.

On top of the style grows the stigma, or pollen receptacle; it has a corrugated surface, which serves to retain the pollen; it also secretes a sweet, sticky substance, which causes the pollen to adhere, but its chief use is to nourish the grains, and to enable them to grow down the style, until they reach the ovules. Such growths are called pollen tubes; the sweet secretion does not appear until the stigma is ripe enough to be pollinated.

Pollination begins to take place when the pollen grain is deposited on the stigma; if all the conditions are right, it begins its downward course, forming the cylindrical pollen tube, which threads its way between the tissues of the style, absorbing its nourishment from the food which the stigma has prepared for it.

Nature has arranged many devices to secure cross-pollination. Some flowers cannot be naturally fertilized by their own pollen. Many flowers are necessarily crossed; willows bear one sex only on each tree, while the cucumber family bear two sexes on one plant, yet in different flowers. Nature employs many agents to bring about a cross; perhaps the most effectual one is the wind, which pollinates grasses, sedges, and pines.

It is noticeable that wind-fertilized flowers are inconspicuous, mostly blooming in the springtime, when winds are prevalent. They produce an abundance of pollen, which is blown hither and thither, almost every blossom being fertilized, although much of the pollen is wasted; this waste being provided for by the production of a large amount of pollen in such plants. Water is less common in aiding cross-fertilization, yet many of the water flowers are pollinated through this agency; one of the most interesting methods occurs in Vallisneria. The plants produce staminate and pistillate flowers; the staminate opening below the water, while the pistillate rise to the surface and expand; meanwhile the staminate are preparing to set free pollen, which also rises to the surface, and floats until it comes in contact with the stigma; then the pistillate flower is drawn down to the bottom by the coiling of the long stalk, and the seeds mature in safety.

[The staminate flowers do not open below the water. They break off, come up to the surface, and then shed their pollen around the pistillate flowers.—J. D.]

Many flowers are adapted to cross-fertilization by insects; indeed, some flowers depend wholly upon them for their pollination. Only certain kinds of insects are useful in aiding cross-fertilization; these are those with hairy backs, bees, moths, flies, butterflies, and some kinds of beetles come in this class; insects like ants, smooth-backed beetles, bugs and the like, are of no use in pollination, especially crawling ones, which the plant discourages, and even checks their visits to the flower. [Some observers say that Scrophularia's pollen is carried or transferred by ants.—J. D.]

Insects are attracted by brightly-colored petals, the shape and perfume of the flower. The most important of these are the bees; they do everything systematically; if they are visiting foxgloves, they always begin at the base of the spike, thus transferring pollen from the ripest flowers to the ones above. Not only does the bee do everything systematically, but thoroughly, rising long before the majority of insects have stirred, and never tiring until the sun is setting. If a bee is visiting a raspberry patch, it continues to do so until the whole patch is finished. If it went from raspberries to blackberries, and then to roses and other flowers, it would be a mutual loss, for the flowers would fail to be fertilized, and the quality and color of the honey would be inferior. [As a rule, nectar-seeking insects do not go from one to another kind of flower at haphazard.—J. D.]

Too much cannot be said of the importance of bees in orchards; few people realize how much work they do, or how necessary they are in aiding the setting of fruit.

Many trees cannot set fruit at all, unless they are cross-fertilized; this is evident in peach and melon culture under glass; each blossom must be pollinated by transferring pollen on a brush from flower to flower in the case of the peach, but in the melon house a staminate flower is inserted in a pistillate one. Some varieties of apple are self fertile; that is, they are able to set fruit with their own pollen; such varieties are the Baldwin and Greening, but it is quite possible that even they would be better for a cross. Often the best varieties are self sterile; that is, they cannot set fruit unless insects deposit foreign pollen on their stigmas; the Bishop, Pippin, Gravenstein, Red Astrachan, Primate and others belong to this class, therefore it is better to mix varieties in an orchard. ["Cross fertilized" is not the appropriate word. Some trees do not self fertilize, because either (1) they do not produce virile pollen, or (2) they need assistance from insects, etc., to convey it.—J. D.]

All the pruning, grafting, fertilizers and tillage count as nothing towards the production of fruit, unless the blossoms are pollinated, and this cannot be accomplished except by the presence of insects.

While the bees are rendering this service, the flowers spread for them a feast of nectar, which the insects carry home and manufacture into honey, wax, and with pollen, bee bread; thus the bee depends upon the flower for existence, just as truly as the flower depends upon the bee.

While everything is done to encourage the bees, just as many plans are devised to keep off their relations, the ants. Like the bees, the ant family is a hard-working set, but they seem to lack application, and have the misfortune to be of little use to the flowers; most of them crawl, and as this is a more laborious method of reaching flowers than flying, they crawl up the first stalk they come to, regardless of the family of plants—that is, if they can ascend it. As ants have shiny backs, they do not retain the pollen; if they did, they would probably waste it on other plants of different orders, and as it is produced at great expense to the plants, they cannot afford to waste it; so downward pointing hairs are grown on the stalk, which prevent the robbers' ascent; endless other devices are arranged—the bowls formed by two leaves growing together in honeysuckles and teasels, which hold the rain water, and drown all climbing adventurers. Exceptions occur, when the flowers encourage ants as a protection against browsing quadrupeds; even then they are never allowed inside the flower, sweets being secreted on the outside for their benefit. [One seldom finds water held by amplexical leaves for any length of time.—J. D.]

Flies, unlike bees, are not attracted by sweet perfumes; generally the most vile-smelling flower is a fly's delight. The calla family is characterized by its evil odors; it is supposed to lure flies by an odor like that of decaying meat. In the calla we find two rows of flowers, the lower pistillate, and the upper staminate at the base of the white trumpet, which is ordinarily called the flower; above these whorls is a row of downward pointing hairs, forming a trap at the bottom and guarding the floral chamber. Flies are attracted by the odor, and proceed down the spathe to investigate, only to find that when they have passed the barrier of hairs they are prisoners. In vain they fly upwards. In so doing, they jar the pollen on the pistillate flowers, which is just what the plant trapped them for; when they have worked at this for three days the hairs wither and release them. [I have read of this treatment of insects by a species of aristolochia; perhaps it is also true of calla.—J. D.]

The evening primrose, honeysuckle and many others are nocturnal flowers, for the same reason that others are diurnal, to secure cross-pollination. It is noticeable that evening flowers have long necks, or corolla tubes, down which no bee could get its prolegs, and they often remain closed during the day, opening only at the approach of night. Nocturnal flowers are white, yellow, or some light color, which stands out in the gathering gloom, when others, by reason of their colors, have faded from view. This is only another device to ensure cross-fertilization—by moths. These insects are attracted from long distances by the sweet perfume of evening flowers, which is often more powerful after the twilight has deepened; it is a noiseless call to the night workers to come on duty when everything is silent. The moths uncoil their spiral tongues, and suck the nectar from the base of the deepest flowers, at the same time brushing the anthers and stigmas with their hairy, almost feathery little bodies.

All these contrivances show how beautifully nature has arranged plans for cross-fertilization. The aim of all plants is to perpetuate the species. A plant must grow where the seed falls—it has no choice of site—consequently must adapt itself to its surroundings; it is only those that possess the greatest adaptive power that can survive—not necessarily the largest or strongest. Plants which have this power most developed are those that have been cross-fertilized; crossing strengthening the type, while inbreeding weakens it. Crossing plants has long been practiced by man. The progenitors of the apple of to-day were once crabs, sour as vinegar, perhaps no larger than a bullet, and almost as hard, but centuries of patient selection and waiting have brought the apple to its present-day perfection. Enormous strides have been taken during the last fifty years in its culture and improvement, and this is but a single instance of what has been accomplished in the amelioration of our fruits, largely through the agency of cross-fertilization. At most every other fruit known to man would give as striking examples. In view of all this, is it too much to say

that no other single factor has wielded so potent an influence in the plant world as has cross-fertilization? [Selection rather than cross-pollination. Both go together, but usually the first is of greater importance in respect to improvement of varieties.]

Oats and some other plants are fertilized before the flower opens. Chlorophyll-digestion is a factor vastly more important than cross-fertilization.—J. D.]

Fireside Philosophy.

When everyone else plunges, stand pat.

Labor is valuable nowadays. Are you wasting any this winter?

Theory is a matter of principle; practice a matter of detail.

How about the manure heap? Fermentation loses us nitrogen; leaching loses us nitrogen, potash, and more or less phosphoric acid. Leaving the manure in the barnyard mortgages our time next spring. Can we afford these leaks?

Sow barley on the old root or fodder-corn patch near the barn, and seed it down to clover this spring. Convenience is not an adequate reason for growing roots year after year on the one spot. These old root patches are sink-holes which annually swallow up many tons of manure badly needed in other fields, while the same fields are almost certainly in need of a cultivated crop. "It is time for a change."

The essence of the principle justifying a law to exempt woodlands from taxation is that any legislation is warranted which helps to bring the interest of the individual into line with the interest of the public.

When dissatisfaction begins to brew there is nothing like bringing things to a head. The recent discussion on the hog question, culminating in the conference at Toronto, undoubtedly did much to clear the air, and the hog business is on a better basis because of it. If packers can now be persuaded to discriminate in price against the thick, fat hog, there will remain no reasonable ground for complaint.

Approves of Exemption.

To the Editor "The Farmer's Advocate":

You are certainly in order in drawing attention to the condition of our remaining portions of forest, and to the need for energetic action, if they are not to be completely cleared off. That in many sections very little timber remains is well known to all. In the country surrounding London there are not nearly so many trees per acre as in the city itself, and the city trees are much the most thrifty. Something seems to be out of joint when more growthy forest in its natural condition can be seen in Springbank Park than for miles around. Probably the most feasible plan to create an interest in the preservation of wood-lots would be as you suggest—for the Legislature to pass an Act permitting municipalities to exempt from taxation, say ten acres, on every hundred-acre farm, on condition that it was reserved strictly for the growth of timber, all stock being rigidly kept out. By this means some inducement would be given to farmers to co-operate with the Government in forest preservation, and attention would be drawn to the possibility of keeping up on the wood-lot a healthy and continuous growth of timber. Many farmers do not believe that there is such a possibility. The idea has prevailed that, not only does it pay to cut down the woods and buy coal for fuel, but that it is impossible to save them, anyhow; they are doomed. The first notion is not so firmly held as it once was, the rise in the price of lumber—barrel timber, for instance—being such as to stagger people; but the belief that it is now too late to do anything is common. Government action, especially if along the line of bonus by tax exemption, would do much to dispel this error, and people would soon learn that a wood-lot can be kept thrifty and productive simply by keeping stock out. The one objection to the suggested system of paying people to do what, in the public interest, they ought to do of themselves. But as it is clearly in the public interest to have the country dotted with clumps of forest, the objection loses most of its force.

Middlesex Co., Ont. T. BATY.

Always Welcome.

Received my premiums Saturday evening. We are all highly pleased with them. They exceed our highest expectations. "The Farmer's Advocate" is always a welcome guest at our home. I always enjoy "the news of the day." Wishing your paper every success, and again thanking you for the premiums, I am,

HENRY TOCHER.

The Uses of Lime in Agriculture.

Lime itself is not usually valued as a direct fertilizer. Its action is indirect. What it does is more, perhaps, in the nature of stimulating the soil than of furnishing fertilizing materials. It has, however, a not important place in practical agriculture, and could be used to excellent advantage on many farms in this Province. In Lambton we have not a few acres of low-lying, swampy soils—soils which are called sour, and on which the ordinary farm crops do not thrive. Then, too, we have, in common with other parts of the Province, considerable areas of rather heavy clay land that is heavy to work, that bakes and is difficult to manage. On each of these kinds of soil lime has a beneficial effect. It corrects the sourness of the one, and relieves the tough, tenacious nature of the other. It makes the swampy soil sweet and fertile, and fit for the growth of plants, by acting chemically upon the vegetable acids whose presence induces the sourness, while it relieves the tenacity of the clays by a physical action in which the soil granules are caused to coagulate together into grains of larger dimensions, forming a soil that is more readily cultivated, more friable, more easily drained, and less likely to bake if worked when wet. We wish to consider briefly these two uses to which lime may be applied.

Swampy soils are soils formed in low-lying areas from the seepage drained into them from the surrounding higher land and from the growth and decay of water plants, mosses, etc., which finally produce a soil sufficiently fertile to sustain certain of the higher plants, but which are seldom capable of producing to the best advantage any of the ordinary agricultural crops. These soils may not occur in very large areas—in fact, in most cases their extent is quite limited—but wherever they do exist, their occurrence is due to the same cause, and the same remedy may be applied in correcting them. By the farmer they are termed "acid" or "sour," and their acidity or sourness is due to the fact that in their formation, through the fermentation or breaking down of the vast quantities of organic matter, mosses, sphagnum, etc., of which they are composed, a great amount of humic acid is liberated, and this, finding in the soil no base, such as lime or potash, with which it may unite, forming in the process the neutral, harmless salts, as are formed in all soils under suitable conditions, is forced to remain in the acid form—a form in which it cannot act as a plant food, nor, if present in any appreciable quantities, permit even of plant growth. Drainage may have some effect in correcting this acid condition, but its action is not rapid enough. We must employ something that will produce a more immediate result, and in this instance that something is lime. If the souring of the soil is due, as we have shown, to the presence of free acid, and if this acid is present for the reason that no base-forming element, such as calcium, is in the soil with which it may unite to form a salt, then the addition of this basic element—and lime is the cheapest form in which it may be procured—has the effect of acting chemically on the acid, changing it into the harmless form, sweetening the soil and fitting it for agricultural purposes.

Such is the action of lime on peaty soils. The effect it produces is chemical. On clays, however, its action is of a somewhat different nature, being largely physical. To understand this action clearly, it is necessary for us to know something of soil physics. Most farmers have a more or less hazy knowledge of the physical properties of the soils they are working, but few there are who know definitely the nature and constitution of the material whose cultivation and management is their vocation. It might not, therefore, be entirely without the subject to discuss it briefly here.

Soils are graded physically, according to the size of the particles of which they are composed, and, under this classification, fall naturally into the three great groups—gravels, sands and clays. Mixtures of these in different proportions with the vegetable mould, organic matter or humus, form the various types of loams. The distinguishing and peculiar characteristic of a clay is the extreme minuteness of its soil particles. It is this fineness of grain structure, together with the presence of the sticky, adhesive kaolin common to all clays, that renders these soils so compact in texture and so tenacious and stiff if cultivated when not in proper condition. The purpose of any remedy is to increase the size of the grains, to render them less adhesive, to increase the open spaces between them, and make the whole soil more open and porous. Underdrainage, the plowing down of green crops, or frequent manuring, accomplishes this result to some extent, but, as in the case of swamp soils, the most immediate result will follow the application of something that is, by its very nature, adapted to produce quickly the desired effect, and again that something is lime.

It is a well-known fact that standing water in a clay soil will usually appear muddy or discolored. Dissolve a piece of clay in a beaker of water, and the solution requires from a few hours to several days to become clear. Add to the mix-

ture, however, a small quantity of lime water, and the matter in suspension settles almost immediately. The lime acts upon the minute clay particles very quickly. They gather together into grains, getting larger and larger, until their weight is such that the water can sustain them no longer, and they sink. The lime has induced a flocculation or coagulation of the particles. Their adhesiveness is materially lessened. They will not pack together so closely, and the porosity and friability of the mass becomes correspondingly greater. Practically the same result follows the application of lime to the soil in the field. The minute granules coalesce into larger-sized grains, and these, from their very nature, must produce more pore space, a free circulation of air, greater root range, and a soil that is generally more easily cultivated and less likely to "bake," if by chance it should be worked when wet.

Ordinary farm soils contain, under most conditions, sufficient quantities of lime for their present and future needs, hence it would be an economic mistake to apply it for any purpose whatever. In the circumstances cited, however, it may be very profitably and advantageously employed. We have noted some very marked results following its application to clays, while its use on sour, acid soils invariably results in a very noticeable improvement in the quantity and quality of the crop produced. Its use, however, is hardly indicated under any other conditions ordinary in Ontario. About fifty bushels per acre is the usual dressing applied in any convenient way and at any reasonable season, after being allowed to thoroughly air-slake. It is better to apply lime often and lightly than to use in larger quantities at longer intervals.

Lambton Co., Ont.

Berlin's Beet-sugar Factory.

The beet-sugar industry in Ontario has now given us four years' experience, during which time ample opportunity has been afforded for careful observations of its relation to agriculture in particular, and to other industrial lines in general. To agriculture the industry has proved itself to be of almost essential importance where its benefits have once been felt. Each year the acreage under the cultivation of beets has increased, and each succeeding year the farmers have more readily made contracts with the company, proving the incorrectness of the impression that some persons held at first, namely, that the farmer would not grow beets. The reason of the increased interest taken by farmers in this industry rests, in the first place, on the fact that it pays them to cultivate the beet, but in addition to this fact all are recognizing an improvement in the soil's condition through the cultivation of the beet, and many hundreds of stockmen are now feeding beet pulp to their animals, with much better results than the most sanguine anticipated.

To the beet-growers of the Berlin factory there have been distributed for the 1905 crop of beets \$289,547.77, showing an average return per acre of \$53.78, based on an exact measured acreage under crop. There is no other crop in the farmer's rotation that gives such high average cash returns. The 1905 beet crop measured nearly fifty per cent. greater than that of 1904, yielded an average of 10.7 tons of net clean beets per acre, and produced a total tonnage fifty per cent. greater than in 1904. Each year the output of sugar has increased, reaching in 1905-6 a quantity sixty per cent. greater than in 1902-3, and thirty-two per cent. greater than in any former year.

Few actually realize the enormous amount of business done during the short period of the factory's campaign. This, however, may be judged of to some extent by the quantity of freight and number of carloads of beets, pulp, sugar, coal and other material conveyed to and from the factory. Berlin received no less than 1,570

carloads of beets, 223 of coal, 62 of stone, 10 of coke, while it has or will send out no less than 267 cars of beet pulp and 300 cars of sugar, composing a total of not less than 51,000 tons of freight carried by no less than 2,435 cars.

As to the future of the industry in Ontario, one important fact, at least, past experience has demonstrated, namely, that factories properly located and managed will, in the course of a few years, be warmly appreciated by its farmers. Each year our acreage prospects have improved in a manner causing us to believe that the time is near at hand when we shall be enabled to make up our required acreage by selecting the most careful and successful growers. At the time of writing the factory has a much larger acreage than upon the same date in any previous year, and we fully anticipate, if the flow of contract acreage coming in continues, the possibility of having to close our acreage books before the time of seeding.

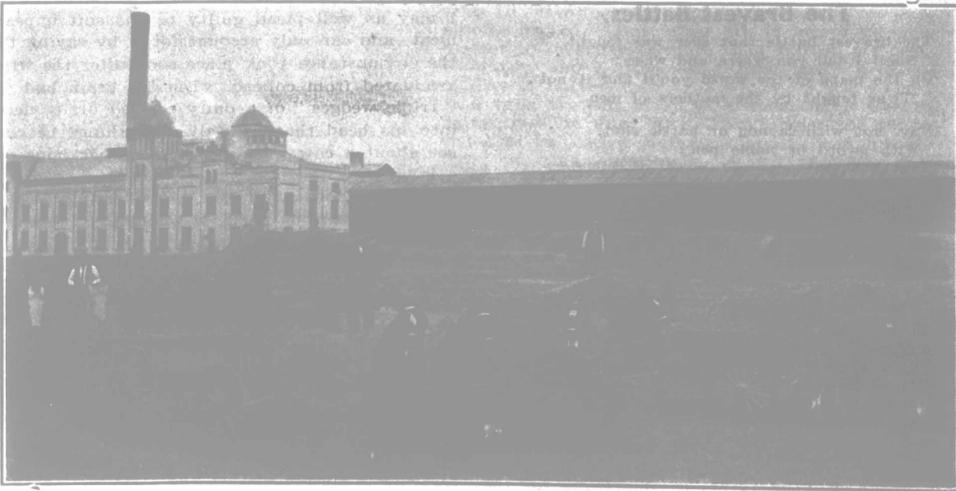
There have been besides the above, 10,775 wagon loads of beets delivered, and several thousand loads of beet pulp teamed back to the farms to feed stock.

WATERLOO.

Experience in Bean Culture.

To the Editor "The Farmer's Advocate":

Some time ago you asked me to write our experience on bean culture. I have felt rather timid in writing to a paper that is so generally taken as an authority on farm topics, many farmers scarcely ever questioning anything that comes from "The Farmer's Advocate." This is a poor policy, as no one method will be successful in all localities and under all circumstances. I am sending you the method we have followed for the last few years with fairly good success, not that this is the best method, but hoping it may start a discussion on the subject, and the best method be found, as the best is none too good. At one time the raising of beans was one of the main industries of this section. But the prices went so low farmers thought it was too hard on the land for the profit derived, and therefore went into stock-raising or some other line; but as prices have again advanced, farmers are going back to beans. In considering this question under present conditions, the scarcity of help is one of the main problems, and how to raise them with the least amount of labor must be the aim. In the first place, I would say get a good serviceable team of horses; then make your fields as long as convenient, so as to save time in turning, and also the horses from trampling out so much of the crop in cultivating. In manuring the ground, we haul out of the box stalls in the winter and spread as evenly as possible, letting it lie over summer, and pasturing the field. In the fall we plow it under, and the manure gives no trouble and better results than if plowed under directly after being hauled out, besides making the pasture a good deal better. We have tried both ways, and find that letting the manure lie on the ground over summer makes a great difference on the crop, and has a tendency to destroy any weed seeds that may be in the manure. The next spring after the ground has been plowed, and the winter's frosts have had a chance of mellowing it, as soon as the ground is sufficiently dry to work properly, we go on with the cultivator or disk harrow and work up a nice seed-bed, then leave the ground for a week or so. This gives the fowl seed a chance to germinate. A few days before it is time to plant we go over it again and work the ground up. This will be liable to destroy any weed seeds that may be near enough to the surface to grow throughout the summer. Then, about the 24th of May or the 1st of June, according to the season, we plant. Some use the bean planter, and others the ordinary 11-hoe drill. If it is a wet



At the Berlin, Ont., Sugar-beet Factory.

Hauling in several thousand tons of beets; piled outside during the rush of delivery.

season the bean planter is the best, as it leaves a ridge on the row, and the water cannot lie in the hollow and bake the ground. But the bean planter needs two men to follow it, while one man can work the drill and put in more in a day. When the beans are showing through the ground, we put the harrow on them. This kills any small weeds that may have escaped the first cultivating, and also levels in the hollow made by the drill. Then, in a day or two, they are ready for cultivating. Some use a two-horse cultivator made for the purpose, but I am conservative enough to believe that better work can be done with the one-horse cultivator. However, that is a matter of opinion. The last few years we have cultivated the beans but twice, and have not found it necessary to hoe at all, cultivating once as soon as the beans are large enough and again as soon as you see any weeds appearing, or as late as you can before they begin to blossom or cover the row. When the pods begin to get yellow or ripen, go in and pull the beans, then take a side-delivery rake and turn them out (which will handle as much as six men can the old way with forks). When they are thoroughly dry haul them in, or, if it should be a wet season and the ground damp, they may need turning, which can be done quickly with the side-delivery rake. As beans are apt to draw moisture, care must be taken to get them in dry, or they will spoil in the mow.

After the bean crop is off, the land is in good shape for fall wheat; all that is necessary is a few strokes of the cultivator to loosen the soil. We planted only ten acres this year, off which we threshed 270 bushels from the machine, but as beans weigh more than 60 pounds to the bushel, they should weigh out nearly 300 bushels, for which we have been offered \$1.45 per bushel. We did not put over two weeks' work for one man on the crop after they were sown—cultivating, harvesting, and all combined—so that, under favorable circumstances, bean-growing is a fairly profitable line of farming. Hoping that others may be influenced to give their methods of bean-raising for the benefit of all, I am a staunch advocate of "The Farmer's Advocate."

Kent Co., Ont. GEO. B. NEWMAN.

Nice Sides of Bacon.

To the Editor "The Farmer's Advocate":

May I venture to write a few lines to your valuable paper regarding bacon hogs and how I raise them? At present I have two white sows, one a Yorkshire, the other Yorkshire and Berkshire cross; also one pure Berkshire sow. I breed my white sows to a Berkshire hog, and my Berkshire sow to a Yorkshire hog, and get all white pigs. I have not had a crippled pig for years. I never rush them in feeding. They have always paid me well, as I always get the best price, as they all turn out select. Now as to long bacon, is it not the packer alone that is looking for it to add a little to his profit? Does not the consumer look for the best, nicest and sweetest, regardless of length? Why, then, feed the longest and largest of any breed to no profit? I wish to say a little of what I have learned from cutting up pork into sausage, having done more than the average farmer at this business. I never had any trouble to fill an order for a fat side, but an order for something nice, not too fat, was harder to fill, and I want to say that the nicest side by far that I ever found was in a Berkshire about one year old. I, however, do not mean to be understood that the Berkshire is the only breed that has a nice side, as I believe the age had more to do with it than the breed. In conclusion I would say, that if I were feeding for my own curing and eating, I would not try to have them finished in six months, but give them plenty of time to get size without so much fat.

York Co., Ont. T. McD.

The Bravest Battles.

The bravest battle that ever was fought,
Shall I tell you where and when?
On the maps of the world you'll find it not;
'Twas fought by the mothers of men.

Nay, not with cannon or battle shot,
With sword or noble pen;
Nay, not with eloquent word or thought,
From the mouths of wonderful men.

But deep in the walled-up woman's heart—
Of woman that would not yield,
But bravely, silently bore her part—
Lo! there is the battlefield.

No marshalling troop, no bivouac song,
No banner to gleam and wave!
But, oh these battles; they last so long,
From babyhood to the grave.

—Joaquin Miller.

The Weekly is the Best.

I used to think when you changed "The Farmer's Advocate" to a weekly it would not be so good, but now I think it is improving all the time, and is better than ever. Renewal enclosed. Wishing you continued success, I am, Yours truly,
Carleton Co., Ont. JAMES A. ROBINSON.

THE DAIRY.

A Year's Milk and Butter Record.

Reg. No.	Name.	Age in years.	Pounds of milk.	Average per cent. of butter-fat.	Estimated lbs. of butter.	Value at 22 cents per pound.
11132	Irena	7	8944	4.1	427	\$93.94
11129	Peace	7	8157	4.	394	86.68
11119	Dinah	7	7674	4.2	375	82.50
17602	Constance	4	7813	4.1	373	82.06
19895	Millie	5	7556	3.9	343	75.46
11125	Lady Ethel	7	7005	4.2	343	75.46
11124	Infelice	7	7137	4.	332	73.04
8881	Miss Violet	8	7489	3.9	331	72.82
6264	Minnie May	13	6986	4.	325	71.50
11118	Delta Maid	7	7064	3.8	312	68.64
13044	Jessie of Kelso	5	6674	3.9	291	64.02
11130	Peggotty	7	6728	3.7	289	63.58
17611	White Rose	5	6151	4.	287	63.14
17197	Miss Vernie	4	5943	4.	272	59.84
11402	Ruth of Kelso	6	5969	3.8	260	57.20
	Spotty	9	7934	4.1	379	83.38
	Gipsy	9	7410	4.2	362	79.64
	Lizzie	8	7828	3.7	337	74.14
	Topsy	4	7518	3.8	333	73.26
	Flossie	9	7519	3.8	333	73.26
	Red Rose	7	6751	4.	315	69.90
	Jane	8	7019	3.8	311	68.42
	Maggie	4	6806	3.8	300	66.00
	Carrie	13	5707	4.5	300	66.00
	Tena	8	6781	3.7	293	64.41
	Jenny	11	6018	3.7	285	62.70
	Doll	3	5473	4.	255	56.10
	Jersey	8	4635	4.6	248	54.56
Average per cow.....			6956	3.9	321.6	\$70.75
Total amount of milk.....			194,789 lbs.			
Total amount of butter.....			9,005 lbs.			
Value, at 22 cents per lb.....			\$1,981.10			
Value of skim milk, at 15c. per cwt.			245.49			

The above is the record of my herd for 1905. Owing to good pasturage all season, we fed no grain from May 15th to October 20th. Had we done so, I think the record would have been better. W. F. STEPHEN.
Huntingdon, Que.

[Note.—This is dairying in black and white. We consider that Mr. Stephen deserves the highest praise for his enterprise in keeping such a record. Let us hear from others engaged in the good work.—Ed.]

Prof. Dean Replies to Mr. Bollert.

To the Editor "The Farmer's Advocate":

May I have three short whacks at that "nut" (issue Feb. 1st)?

1. It was far from my thought to reflect on the integrity of breeders of pure-bred cattle. I have always assumed that a man is honest until he has proven to be a rogue, rather than that he is a rogue until he proves to be honest. In the particular instance referred to, I wot that through ignorance he did it.

2. The most unkindest cut of all is that which my good friend Mr. Bollert gives, when he suggests that "more brains" should have been exercised in the purchase of these pedigreed cattle. I may as well plead guilty to the soft impeachment, and can only account for it by saying that the circumstance took place soon after the writer graduated from college, when his brain had the "triple wedges" of a dairy cow so firmly driven into his head that the only other things he could see about a cow were a prominent backbone and a long, slim tail.

3. The formation of "Cow-testing Associations" in various parts of Canada, to test common cows, and the fact that the Dominion Department of Agriculture have, or shortly will have, provided machinery whereby breeders of pure-bred dairy stock may have their cows tested officially, are two signs of the times which point to a revival among owners of dairy cows. There are, no doubt, difficulties in the way, but Canadian pluck and determination will overcome all these. Nothing can stop the ball which has now been set rolling. If seven-day tests have been of the "greatest benefit" to one breed, then tests for a longer time ought to be of greater benefit, not only to this breed, but to all the breeds concerned. I sincerely trust that this work of testing cows will be carried on by all those interested in the improvement of dairy stock.

H. H. DEAN.

Know Your Cows.

CO-OPERATIVE TESTING OF COWS.

One of the most important points brought up at the Eastern and Western Ontario Dairymen's conventions last month, was the testing of cows by co-operative testing associations. It was announced that the Dominion Minister of Agriculture, Hon. Sydney Fisher, had expressed his willingness to supply a Departmental man to do the testing wherever twenty or more farmers in a locality were willing to purchase the necessary inexpensive outfit of scales, sample bottles and sampling dipper, and undertake to weigh the milk of each cow for a specified number of days each month, and take the samples for testing. One cow-testing association had already been formed, at Cowansville, P. Q., as reported in our issue of January 18th, by turning up which number our readers will gain from the by-laws an exact idea of the simple character of the organization. The Dairy Branch of the Department of Agriculture is anxious that more of these associations be organized, and is ready to assist in their formation wherever there is a prospect of a sufficient number of dairymen being interested. Those desirous of launching such a scheme in their locality may correspond with Dairy Commissioner J. A. Ruddick, Ottawa, Ont., or with Mr. C. F. Whitley, Experimental Farm, Ottawa.

While the Dairy Commissioner deserves credit for introducing this co-operative cow-testing movement, it was brought out at the Western Dairymen's convention that the chances of success will be greatest where the farmers organize themselves and do not rely upon the Government employee. It was suggested that dairymen should organize with the creamery of cheese-factory district as the unit of territory, the maker doing the testing for the patrons. This is a good plan, and should result in a considerable enlightenment of cow owners, a weeding process, an increased milk supply, and, consequently, an improved quality of milk—for it is the general experience of makers that when the patrons of a district commence to take an interest in the production of their herds they are more open to suggestions of all kinds; progress is manifested in their whole dairy work, and they are far more likely to take first-class care of their milk.

DON'T WAIT FOR A CO-OPERATIVE TESTING ASSOCIATION.

But in cow-testing, as in other matters, we believe the greatest success will be achieved by those who undertake the work individually. Cow-testing associations are all right for such as will not undertake the work otherwise. Then, too, no dairymen who really wishes to get at the true inwardness of profitable production will be satisfied with weighing the milk of his cows only three days a month. It should be done every milking in the year, and an exact record kept. Why? For the sake of the lessons it teaches and the assistance it gives one in feeding. In most of the talk about milk records, undue emphasis is laid on the opportunity for weeding out the poor cows. This certainly is a most important advantage, but it is far from being the only one. A DAILY MILK RECORD ENABLES THE INTELLIGENT HERDSMAN TO GET MUCH BETTER YIELDS FROM THE COWS HE ALREADY HAS. It increases his interest in the herd, and when he gets his interest focussed on the welfare of his cows he is going to take more pains, do better work and get bigger yields. In dairying, as in all phases of stock husbandry, the man is the most important factor in the equation of success. The trouble with most dairying is too much cow and too little man. The milk record pays first, then, because it stimulates the personal factor. It enables one to feed better. He can tell pretty accurately the effect of any change in feed or management; he can study the individuality of his cows; the ration that best suits one cow will not be best for another. There is a wider difference in the requirements of individual cows than the majority of people suspect, and surprising possibilities in catering thereto.

THE MILK RECORD AN EDUCATOR.

Milk records are an invaluable educator. They teach the importance of good feeding, balanced rations, succulence, comfortable quarters, kindness, attention, regular and careful milking, and dozens of other things that bulk quite respectably on the profit-and-loss sheet. They take dairying from the chaos of guesswork and place it on a business basis. The keeping of individual records would pay handsomely even if one never discarded a single cow. Of course, nothing is more certain than that he would find some to discard at once, and others which he would keep only until he had raised up heifers from the best cows to take their places. The possibility of thus improving the average production by more intelligent care and by selection are immense, and the satisfaction of the work is an additional compensation. Some claim that keeping records takes too much time in this day of scarce labor. As a matter of fact, the time required is comparatively little, and the high price of labor, so far from being a deterrent, should be regarded as the strongest possible reason for doing this work. The dairymen who cannot afford to pay present prices of labor as the one with poor-yielding cows, and the longer he keeps on with the old cows and the old methods the harder will it be to make ends meet.

AN EXPERIENCE WITH THE DAILY RECORD.

A little experience may be in order here. Five years ago the writer was in charge of a small herd of ordinary cows, most of which were due to calve along

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in March and April. In spite of usual care the milk flow was gradually falling off during November and December, the average yield in each month being about 2 lbs. per head per day less than in the preceding month. A small scale was obtained and hung up in the stable, a board was tacked up beside it, and on the board a ruled sheet on which to record each cow's morning, evening and total daily yield. This was January 1st. By the end of the month the average daily yield per cow had increased from a little over 12 to 13 1/4 lbs. per day; by the end of February it had increased nearly another pound; through the first half of March it held about steady, as some of the cows were approaching parturition. From then on it decreased till the cows freshened again. What was it that enabled us to arrest the shrinkage and actually increase the flow by an average of 2 1/4 lbs. a day for each cow under these circumstances? There was no particular change of weather, or conditions; very little more meal was fed, and more roots. The secret was here: From the time we began to keep track of the milk yields everybody on the farm developed a new interest in the cows. The milkers were more prompt, more regular and more careful in stripping; the feeding was more regular; drafts in the stable were avoided, so far as possible; the meal ration was varied judiciously, some cows being given more and others less than before; the dog's liberties with the cows when out in the yard were curtailed, and in every reasonable way they were given a chance to do their best. There was not a great deal more time spent in the stable, and what little extra there was meant just so much less lounging around the house, so it did not represent much money value. The actual time spent in weighing the milk amounted to not over ten minutes a day for a herd of six cows, and figuring up the records required one or two evenings a month. The weighing was continued by the writer as long as he was on the farm, and discontinued for a few months on his return later on, and practiced with similar results on another herd since. There was no Babcock tester within reach, so no testing was done, and the mere milk records were not a reliable guide for weeding out the poor cows, but the increased production per cow was ample compensation for the time spent, and the experience was by far the most valuable gained in all the years on the farm. The best way to raise a race of good dairy herdsmen is to get a lot of boys and young men interested in daily milk records. For our part we would not think of dairying without keeping such a record. It is the chief corner stone of success in dairy husbandry, and no man who wants to make a real profit out of his cows can afford not to keep a record. It will pay anyone, but it will pay best the intelligent and careful dairyman, for he will draw the most valuable conclusions from the data he gathers, and apply his knowledge to the best purpose.

HOW TO KEEP A RECORD.

The keeping of a milk record is exceedingly simple. All you do is to weigh the pail of milk, deduct the weight of the pail, and mark down on a sheet tacked up beside the scales the amount of each cow's milk. A small dipperful (about half a fluid ounce) of milk is then taken and placed in the sample jar, in which is a chemical preservative, made by mixing 7 parts potassium bi-chromate with one part corrosive sublimate. In each bottle put about the quantity that will lie on a ten-cent piece. In hot weather a little more might require to be added at the end of two weeks. When adding sample of milk twice daily, give the bottle a rotary motion, and keep it closed with a turned wooden cork. The testing may be done once a month by the creameryman, by yourself, or some neighbor who has a Babcock tester.

A FAIR BASIS ON WHICH TO COMPARE THE COWS

Below is a convenient form to use in keeping the daily record, also a form, according to which a monthly summary may be kept in a special book—one page for each cow—showing number of days milking, total pounds milk, average per cent. of fat, estimated pounds fat, and total points for the month's production. At the end of the year each cow's monthly records may be summarized.

A word of explanation may be necessary as to the object of the column, "cow's monthly score." It is not fair to compare cows, especially where butter is being made, nor yet where the cheese factory pays according to test, on a basis of milk yield alone. Neither is it fair in any circumstances to compare them on a basis of fat yield alone. A cow giving 6,000 lbs. of milk containing 200 lbs. butter-fat, is more valuable to a farmer than a cow giving 5,000 lbs. milk containing the same quantity of fat. The former cow yields an extra thousand pounds of skim milk, which to any good feeder is worth, at a low estimate, \$2.00 for feeding calves or pigs. To arrive at a fair estimation of the relative value of various cows, it is necessary to take account of both milk and butter-fat, and a very simple way of doing it is to credit each cow with one point for each cwt. of milk, and one point for each pound of butter-fat.

In all calculations care should be exercised not to become so absorbed in the figures as to lose sight of physical points, such as ease of milking, constitution and general vigor of cow, etc. The wise dairyman, therefore, will secure all the facts and figures possible, set down all he can in black and white, and there will still be plenty of room to use his judgment.

DAILY MILK RECORD FORM.

Month of.....

Date.	Time.	Daisy.	Belle.	Spot.	Total of herd for day.
1	M				
	E				
2	M				
	E				
3	M				
	E				
Etc.	M				
	E				
31	M				
	E				
Totals					

YEARLY MILK AND BUTTER-FAT RECORD FOR EACH COW.

Cow, Bessie.

Month.	Days Milking.	Lbs. Milk.	Per cent. Fat.	Estimated Lbs. Fat.	Cow's monthly score. 1 point for each cwt. milk. 1 point for each lb. fat.
January ...	31	400	3.6	14.4	4+14.4=18.4
February...					
March.....					
Etc.....					
Total	300	5000		180	50+180=230

Those who wish to go further and keep account of the average amount of feed consumed might find the following form, supplied on application by J. H. Grisdale, of the Experimental Farm, Ottawa, useful by way of suggestion. One can afford not to bother with feed calculations at first. Let a man get really interested first in milk records and other calculations will be adopted more and more.

The daily record is the way to success in dairying. Will you take it, or will you drift?

FEED RECORD.

For week ending.....

Description of Mixture of Meal Fed.....

Cow.	Kind of feed.	Quantity Fed During Day.						Total.
		Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	
Meal...							
Hay...							
Ensl'g							
Roots							
Meal...							
Hay...							
Ensl'g							
Roots							

The Tale of the Scales.

Let me tell you what happened to my herd within a week. Friday night and Saturday morning they gave 426 pounds of milk. I was obliged to be away from home from Saturday morning till Sunday night. Then, Monday I attended to matters that kept me away from the barn. Saturday night and Sunday morning the herd gave 402 pounds. Sunday night and Monday morning they gave 393 pounds, and Monday night and Tuesday morning 374 pounds. I looked over my weights and found a general shrinkage, which meant neglect, pure and simple. Once upon a time, if my men had told me

everything had been attended to properly, I should have had to believe it; but the scale in the dairy barn is much like the tape in the stock speculation, only surer. Learn to read its records and you will have a pretty fair idea of what is happening, even if you are not at the actual scene of activity.

One of the most difficult things on the dairy farm is to convince your men that you know the signs which indicate conscientious effort or neglect on their part. I sometimes wonder if I look like a fool or act like one; it certainly takes some men a long time to find out that I am onto my job.—[Thomas Hollis, in Jersey Bulletin.

Milk Strainer and Milk Stool.

To the Editor "The Farmer's Advocate":

We have frequently read of a cloth strainer being preferable to metal for milk, but have never noticed any mention of what cloth is best, or how it is used. Long ago we began using a cloth for straining milk, and, as a consequence, have had no more use for a milk pail with a strainer. For a long time, however, we failed to "catch on" to the best way of using this cloth strainer. We used an elastic band to go over the top of the can and around the cloth strainer. As this would frequently be lost or missing, we fortunately thought of common clothes pins for this purpose, and so far have found nothing better. They are neither expensive nor hard to procure, and not only easily put in place, but stay when they are there. It goes without saying that cloth is better than any metal can possibly be. I am not sure what cloth is best, but we find nothing better than five-cent factory cotton. One yard will make four strainers. If you are using a cream separator, the cloth strainer and clothes pins will work fine, only a longer strainer and more pins will be necessary. For those who use the shallow pans it is not quite so handy, but I would not use these any more if I could possibly help it, even though I could find no other use for them; they are hardly up-to-date.

We have in use, also, an easily made milk-stool, which combines a seat for the milker and a place in which to set the pail. A board about an inch thick, 21 inches long, and 10 inches wide, two legs in front, 6 or 7 inches high, and two at the back, one inch longer. The seat is about 3 inches or so higher than this, and about half the length of the whole, leaving room to set a pail in front. The front part of the stool is better rounded a little, and to prevent the pail, which tips forward a little, from slipping off, a piece of a barrel hoop can be nailed around the front, and have it project up one-fourth in. or more. The side supports of the seat are a little under at the front, to allow for the slant caused by the front legs being shorter than the back ones. Some of the advantages of such a milk stool are that the pail can be kept clean no matter where you milk; there is less danger of the cow kicking it over or stepping into it; the milk splashes less, and so, unlike the usual three-legged variety, it is not easily upset. G. A. DEADMAN.
 Brussels, Ont.

"Quality and Quantity of Butter."

To the Editor "The Farmer's Advocate":

At your request, I should like to make the following comments on the very important question of "Quality and Quantity of Butter." We were pleased to see that this year Prof. McKay put QUALITY first, and did not lay so much emphasis on "Quantity" as was done last year, whereby some of our buttermakers got into the slough of dissatisfaction and tried to automobile up the hill of difficulty. The buttermaker who tries to waterlog his butter is treading on dangerous ground. But, after all, it is not an easy matter to incorporate more than sixteen per cent. of water, and at the same time make a good quality of butter.

A brief account of an experiment made by our dairy class on Jan. 30th, 1906, under the supervision of Instructor McDougall, will throw a little light on this question. A lot of cream was divided into three equal parts by weight, and churned under the same conditions as far as possible. No. 1 was treated in the usual way, and contained 13.98 per cent. moisture. No. 2 was washed with the rollers in motion, and contained 14.11 per cent. moisture. No. 3 was washed and salted with brine, and contained 15.83 per cent. moisture. The yields of butter were 62 1/2 pounds, 62 1/2 pounds, and 62 1/2 pounds, respectively, from the three lots. On Friday, Feb. 2nd, samples from lots 2 and 3 were scored by the instructors and class, without knowing how or when made. Nearly all were agreed that No. 2 was inferior butter, especially in being "gritty" and "mottled." The results in this case of No. 2 method, washing with rollers in motion, agree with results obtained during last summer and in December, 1905. There was no increase in the quantity or moisture of the butter, more than might occur as the results of experimental error. It would seem to us that a good deal of "guff" has been said or written on this

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subject. I am reminded of an old gentleman whose early education had been neglected, but who was a faithful attendant at the Sunday School. On one occasion, when reading a well-known passage, he read as follows "They strained at a gate and tried to swallow a saw-mill."

Seriously, I should consider it a great mistake if Canadian buttermakers were to get the reputation of making "waterlogged" butter, as such butter is not wanted in any market, and especially not in British markets, where merchants say that it will not keep, neither will it "stand up" well on the counter. One of the chief faults with Irish butter is that it tends to contain too much water, so English dealers say. Good butter should contain from 12 to 15 per cent. water, and it is never advisable for a buttermaker to exceed 15 to 15½ per cent, as this is near the danger line (16 per cent.), and he has no means of knowing readily how much moisture there is in his butter, hence it is better to err on the safe side and keep out of the clutches of the law. It is no doubt a fact that much Canadian butter is too dry, especially in winter. The wise plan is to aim at the "happy medium."

There is another point in this question which should not be lost sight of. The water of butter is nearly all added or extraneous water, and in many cases it comes from wells, the purity of which may at least be questioned; hence, the more of such water there may be in butter, the greater the danger of bad flavors, due to germs found in impure water, which would multiply in butter unless kept at a very low temperature. For this reason, some advise the pasteurization or filtration of all water used in washing butter. No doubt, in many creameries this would pay. My advice to Canadian buttermakers is to go slow in this question. "Be sure you are right, and then go ahead," is very good advice for a man in almost every line of business, and may well be taken into serious consideration by creamerymen.

Ontario Agricultural College. H. H. DEAN.

GARDEN ORCHARD.

The Hotbed.

Now that March-hotbed-making time is approaching, those who wish to have early vegetables may think about bestirring themselves in the matter.

According to a writer in Garden Magazine, the making of a hotbed is, after all, an affair so simple as to call for few of the misgivings with which it is usually regarded. This writer made a successful hotbed as follows: The warmest, most sheltered place in the garden was chosen, the bed marked out and excavated to a depth of four feet. A post was set in at each corner, and the framework about made of 1 x 10-inch boards, one board being placed at the front and two at the back, to secure the necessary slope towards the south. Fresh horse manure, well tramped, then drenched with water, was put in to a depth of three feet, and the frame closed up. After two days, the soil for making the bed was added. Soil for hotbeds, by the way, should be a rich, friable loam, with a little sand mixed in, if possible. Manure from old hotbeds, mixed with about two-thirds loam, is excellent. The soil, when in the hotbed, should be about six or eight inches in depth.

To keep the bed warm, a second wall was built to the north and at the ends, about two feet back, and the intervening space filled up with clay and manure. The best covering for the glass frames, put on at night and during cold weather, was found to be a light mattress, made of cotton, and filled with straw, with a covering of waterproof material over all. Old carpet, however, with a covering of boards, has been found to answer the purpose very well.

After the soil has been put on, it should be left until it has warmed through and the weed seeds have germinated; then the surface should be made fine with a rake, and the seeds planted. Afterwards, but ordinary care in watering, and ventilating by raising the sashes somewhat during the warmest part of the day, will be necessary.

Green, in Vegetable Gardening, says clear horse manure heats too violently, and unless the manure gathered contains considerable straw, recommends mixing it with an equal bulk of leaves or fine litter. To prepare the manure, he advises gathering it fresh into a pile, and when it has got nicely started to heat, turning the pile over, throwing the outside manure into the center of the heap, and breaking up all lumps. In a few days it will start to heat again, and may then go into the frames.

POULTRY.

The Poultry Industry of Canada.

(Continued from page 203.)

Canada secures from the poultry-yard a yearly return equal to \$14.13 per family, the eggs yield a value of \$9.60 every year, the poultry killed or sold for export a value of \$1.28, and the sum of \$3.25 represents the value of hens and chickens in active business. The banner province in this respect is again Prince Edward Island, with a total of \$20.69 per family, closely followed by Manitoba with \$17.74, and by Ontario with \$16.50, while Nova Scotia follows in the rear with but \$8.39; the Province of Quebec has \$9.84.

While Ontario's hens lay an average of 93 eggs a hen, and Manitoba's 83, and Prince Edward Island's 85, and Quebec's 91, and New Brunswick's 86, Nova Scotia's hens lay 108 eggs in a year. If everybody goes into chicken-raising and egg-production, where will we all get a market?

HOME MARKET.

The home market, with a production of 84,000,000 dozens, our Canadian consumption was last year not fully supplied; in 1902 we exported 12,000,000 dozens, and had, say, 72,000,000 dozens for home consumption. We needed quite a number to put under the hens and into incubators, but we had probably an annual home consumption of 68,000,000 dozens, say 12 dozens (making allowance for added eggs) per head of the population. That looks large, but it is not one egg in two days for each person; and then, consider how largely eggs enter into daily use in household cooking, in confectionery shops, bakeries and other businesses, and in arts and sciences.

The British Isles imported last year 198,500,000 dozens, Russia sending 68,000,000, Denmark 38,000,000, Germany 31,000,000, Belgium 23,000,000, France 16,000,000, and Canada 7,333,000 dozens. We sent fewer dozens last year than in the preceding year, though here again I note a compensation: While the average price of the 198,500,000 dozens was 16 1-5 cents per dozen, Canada's eggs had a value of 19 cents. We are being beaten by the Russian hens, which are contributing more and more to the wants of the British consumer. Shall we let the Russian hen continue to carry off one-third of this enormous business, valued at \$32,000,000 or \$33,000,000 yearly? While we send but little more than one-twenty-eighth, Russians send one dozen in every three. Canada one dozen in every twenty-eight! Perish the thought!

The review just mentioned will give a fair idea as to where we stand in the poultry world. Our aim should not be neglected in improving the poultry as egg producers. It has been a grand encouragement to poultry-raisers to look over high prices in the year just past—1905. It bids well for those who take some pains and attention in producing an egg-laying strain. There will be a better remuneration for those who try to supply eggs for export or home consumption. I am glad of the idea most farmers are taking in the past few years—that of giving their feathered pets better care and attention. Not a score of years ago farmers had the opinion that their fowls should lay and return them a profit, whether they were even fed or had shelter. In place of comfortable buildings, as many have now, they were compelled to roost in tree-tops, on fences, or in open shed lofts, where the fowls suffered in all stages of diseases, and still had to scratch their living around the field or yards.

But as the old people of past generations have passed away and their children have taken their places, they have become persuaded to a certain degree that the poultry-yard of their farms, with a little care and attention, will yield them a fair profit for time and money expended, and they have also found out that if the Canadian hen was cast to dreams there would be a falling off in the nation's revenue. Farmers are building neat and comfortable buildings, and introducing pure-bred poultry, and are approving of the poultry industry. Compare the poultry industry with the sheep, swine, etc., and see the result. They yield a larger percentage of profit for time and money expended than any other branch of farm work.

Renfrew Co., Ont. J. W. DORAN.

THE FARM BULLETIN.

A subscriber who sent us a legal enquiry re ownership of parcel of land, accompanied with pen-and-ink diagram of lots, omitted to enclose his name. In no case can we undertake to answer questions without the full name and address. If the enquirer will forward name and address the question will be dealt with.

According to a press despatch, one of the first activities of the Agricultural Department of the new Government of Saskatchewan, is in the direction of eradicating smut from grain. To this end farmers are being notified that bluestone will be tested free of charge, so that no farmer need use chemical of doubtful quality in treating his seed. The work will be in charge of Dr. C. Charlton, the Department's bacteriologist.

At the thirtieth annual convention of the New Brunswick Farmers' and Dairymen's Association, held at Fredericton, January 23rd and 24th, the following officers were elected: President, Donald Innes, Tobique River; Vice-President, F. E. Sharp, Midland; Recording Secretary, Bliss M. Fawcett, Upper Sackville; Corresponding Secretary, Thos. A. Peters, Fredericton; Treasurer, Harvey Mitchell, Sussex.

At a meeting of the Niagara Falls Hunt Club, a resolution was adopted, calling for an amendment to the game laws of Ontario, to provide for increasing the hunting license fee for non-residents from \$25 to \$100, and enacting such laws as will prevent the exportation of game from the Province. Farmers who have been annoyed by the hunters that throng our woods every fall to shoot in sport the birds and animals that enliven our woods will agree that the license fee cannot be raised too high.

Dominion Cattle-breeders' Association Annual Meeting.

The annual meeting of the Dominion Cattle Breeders' Association was held in Toronto, Feb. 8th., the President, A. W. Smith, Maple Lodge, Ont., in the chair. The report of the Executive Committee showed that at the Provincial auction sales, held under the auspices of the Association, 61 animals sold at Guelph for an average of \$74.77; 33 at Ottawa for an average of \$78.26; 14 at Port Perry for an average of \$79.65, and 5 at Campbellcroft for an average of \$57.

At the Ontario Winter Fair, Guelph, 1905, the number of entries was 5,017, as against 4,319 in 1904. The total amount of prizes awarded in 1904 was \$8,188.50, and in 1905, \$8,961.20. The gate receipts in 1904, \$1,843.10, and in 1905, \$2,105.

The financial statement showed a balance on hand of \$127.95.

In a discussion regarding the prize-list for the dairy test at the Winter Fair, considerable difference of opinion was expressed as to the value of a two days' test, but owing to the educational character of the Winter Fair generally the consensus of opinion was that this feature should be continued, and letters from breeders were read asking for an extended classification. A motion was also carried that the Canadian National Exhibition Association be asked to reinstitute milking tests. A letter from the Dominion Minister of Agriculture regarding the work of an advanced registry for pure-bred cows, and the promise of the Minister to provide an inspector to supervise this work was favorably received.

OFFICERS ELECTED.

The following Officers and Directors were elected for 1906: President, A. W. Smith, Maple Lodge; Vice-President, Col. J. A. McGillivray, Bedford Park; Secretary-Treasurer, A. P. Westervelt, Toronto; Provincial Vice-Presidents—Ontario, Arthur Johnston, Greenwood; Alberta, C. W. Peterson, Calgary; British Columbia, F. M. Logan, Victoria; Sask., G. Wright, Regina; Manitoba, Dr. S. J. Thompson, St. James; Maritime Provinces, Prof. Cumming, Truro, N. S. Directors for breed societies—Shorthorns, Jno. Isaac, Markham; T. E. Robson, Ilderton; Herefords, supplied by Executive of Hereford Association; Galloways, Col. D. McCrae, Guelph; R. Shaw, Brantford; Aberdeen-Angus, J. W. Burt, Coningsby; Alex. Kinnon; Ayrshires, W. W. Ballantyne, Stratford; Holsteins, R. S. Stevenson, Ancaster; G. W. Clemons, St. George; Jerseys, left to Executive of Jersey Cattle Club; General Director, Chas. Calder, M. P. P., Brooklyn; Ontario Agricultural College, Prof. G. E. Day.

Delegates to the National Record Board—A. W. Smith, Col. McGillivray, A. P. Westervelt. Representatives to the Ontario Advisory Board to be named by the Directors of the various associations.

Shire Horsemen Congregate.

The annual meet of the Canadian Shire Horse Society took place in the Repository, corner Nelson and Simcoe Streets, Toronto, Thursday, of the convention and spring show week. The Secretary reported a much improved financial condition on the part of the association, the members deciding to relieve the financial plethora by a grant of \$50 to the Canadian National, and an equal sum to the Clydesdale and Shire spring stallion show then in progress. Mr. Wellington and others expressed their belief that the English draft horse was surpassed by none, mention being made of the sale of a Shire gelding in Toronto recently, at a figure well over \$300. Mr. Hendrie stated that from practical experience with the Shires on city pavements, they had proved the equal of any and superior of most draft breeds for cartage purposes. The election of officers followed, and provoked a little controversy when the attempt was made to place a couple of Western men on the list, one individual holding that the society was a provincial one, and should be supplied by its own residents, a view not held by any of the other members, as the elections showed. Appreciative mention was made of the gold medals donated by the English Cart Horse Society to the Toronto and Winnipeg shows; Dr. Hopkins taking occasion to point out that a small grant, say of \$25, to Winnipeg by the Canadian Shire Horse Association, would help advertise the breed in the West. The suggestion was not acted upon.

The following officers were elected: Honorary President, F. W. Hodson, Live-stock Commissioner, Ottawa; President, James M. Gardhouse, Weston, Ont.; First Vice-President, William Hendrie, Jr., Hamilton, Ont.; Second Vice-President, Dr. A. G. Hopkins, Winnipeg. Vice-Presidents for the Provinces—Quebec, Robert Ness.

Howick; New Brunswick, T. A. Peters, Fredericton; Nova Scotia, Prof. Cumming, Truro; Manitoba, George Greig, Winnipeg, Man.; Alberta, C. W. Peterson, Calgary; British Columbia, S. R. O'Neil, Vernon; P. E. Island, Hon. Frank Hassard, Charlottetown. Directors—Joseph Dalgety, London; James Henderson, Belton; W. E. Wellington, Toronto; John Gardhouse, Highfield; A. H. Eckford, High River, Alta.; William Wilkie, Toronto; Colonel J. A. McGillivray, Uxbridge. Delegates to fairs and associations—Industrial Exhibition, John Gardhouse and James Dalgety; Western Fair, H. Wade and E. C. Attrill; Central Exhibition, Ottawa, F. M. Wade and Campbell Smith; Horse-breeders' Association, James M. Gardhouse and James Dalgety; Registrar, F. M. Wade, Ottawa, Ont.; Secretary-Treasurer, Henry Wade, Parliament buildings, Toronto.

Holstein-Friesian Breeders Meet.

The 23rd annual meeting of the Canadian Holstein-Friesian Breeders' Association, held in Toronto, Feb. 6th, was attended by a very large, enthusiastic and intelligent gathering of breeders from the provinces of Ontario, Quebec, New Brunswick, Nova Scotia and Alberta. The President, Mr. Matt. Richardson, Caledonia, Ont., in an able address, congratulated the members of the Association on the unprecedented success of the past year in sales of stock, in dairy production, and in profitable prices. The report of Secretary-Treasurer G. W. Clemons, and of the Executive Committee, read by the Assistant Secretary and Registrar, Miss Clemons, showed that 1905 had been the banner year in the history of the Association, there having been a gain of registrations over the previous year of 943 cows and 690 bulls, or a total of 1,633. Transfer certificates had been issued to the number of 1,302 during the year. During the year, 58 records of cows were accepted for the Record of Merit, 42 being first tests, and 17 for additional tests. Three bulls had been entered on records of four or more daughters, and 59 new members had been received during the year. The Treasurer's report showed receipts from all sources of \$4,629.23, including a balance from the previous year, and a balance on hand on Feb. 3rd of \$2,450.

On the recommendation of the Executive, \$100 was voted to the Secretary in consideration of the preparation of the card system of indexing, whereby a convenient index of every animal in the whole eight volumes published is now available. On motion, it was resolved to continue the payment of the five-dollar fee to owners of cows submitted for test and qualifying for the Record of Merit.

Grants to leading exhibitions as special prizes for Holstein cattle were donated to the amount of \$800, distributed as follows: Toronto Industrial, \$100; Dominion Exhibition, Halifax, \$100; Winter Fair, Guelph, \$100; Ottawa Winter Fair, \$100; Sherbrooke, Que., \$100; Winnipeg Industrial, \$50; Western Fair, London, \$50; Canada Central, Ottawa, \$50; New Westminster, B. C., \$50; Amherst, N. S., Winter Fair, \$50; Charlottetown, P. E. I., \$25; Calgary, Alta., \$25.

The election of Officers for the current year resulted as follows: President, R. S. Stevenson, Ancaster; 1st Vice-President, A. C. Hallman, Breslau; 2nd Vice-President, G. A. Gilroy, Glen Buell; 3rd Vice-President, D. Mallory, Frankford; 4th Vice-President, H. Bollert, Cassel; Secretary-Treasurer, G. W. Clemons, St. George, Ont.; Directors—James Rettie, Norwich; Stanley Logan, Amherst, N. S.; E. K. Herrick, Abbotsford, Que.; J. W. Richardson, Caledonia. Delegates to leading fair boards—Toronto, W. G. Ellis, W. Shunk; London, H. Bollert, G. W. Clemons; Ottawa, W. W. Brown, G. A. Gilroy; Winnipeg, A. B. Potter, D. Munroe; Calgary, A. S. Blackwood; Sherbrooke, F. E. Came, E. K. Herrick; Halifax and Charlottetown, S. Logan, W. M. Lee; New Westminster, J. W. Steves, T. J. Laing.

On motion, the Executive was authorized to nominate judges for the leading exhibitions, and also to prepare a list of qualified judges, from which local fair boards may make selections.

A suggestion by members from Quebec and the Maritime Provinces, for the appointment of a vice-president for each Province, authorized to organize a provincial association for the furtherance of the interests of the breed, was freely discussed, and was referred to the Executive for consideration and possible action at next annual meeting. Regarding a memorandum from the Dominion Minister of Agriculture, presented by J. B. Spencer, Assistant Live-stock Commissioner, relative to the supervision by a Government inspector of yearly tests of cows for milk and butter-fat production, it was resolved that no action at present be taken by the Association.

The Ontario Winter Fair Association Annual Meeting.

The annual meeting of the Ontario Winter Fair Association was held in Toronto, February 9th, the President, Mr. Arthur Johnston, Greenwood, in the chair. The report of Secretary-Treasurer A. P. Westervelt showed that the amount paid out as prizes at the 1905 fair was \$7,739.75, as compared with \$7,299.50 paid in 1904. The gate receipts at the 1905 fair were \$2,100.70, as against \$1,843.10 in 1904.

The financial statement showed receipts, \$13,650.96, and expenditures, \$13,802.03, leaving a balance due the Treasurer of \$151.07.

OFFICERS ELECTED FOR 1906.

President, Arthur Johnston, Greenwood; Vice-President, J. A. McGillivray, Bedford Park; Secretary-Treasurer, A. P. Westervelt, Toronto; Chairman of Executive Committee, W. W. Ballantyne, Stratford.

Canadian Hackney Association Annual Meeting.

The annual meeting of the Canadian Hackney Horse Breeders' Association, convened in the Repository, Toronto, on the evening of Feb. 7th, and the meeting was well attended, the President, Mr. Robert Miller, Stouffville, in the chair, who referred to the growing popularity of and demand for Hackney sires for the production of high-class carriage horses. The report of Secretary-Treasurer Wade showed a balance on hand of \$750, and an increase of 10 in the membership. On motion, \$200 was granted as prizes to each of the principal exhibitions in the Dominion.

OFFICERS ELECTED FOR 1906.

President, E. C. H. Tisdale, Beaverton; 1st Vice-President, O. Sorby, Guelph; 2nd Vice-President, W. Kenfrew, Toronto; Secretary-Treasurer, H. Wade, Toronto. Directors—R. Miller, Stouffville; T. A. Graham, Claremont; R. Beith, Bowmanville; R. W. Davis, Toronto; Geo. Raikes, Barrie; W. Kenfrew, Toronto; C. R. Bennett, Russellton.

Delegate to Toronto Exhibition—President E. C. H. Tisdale. Delegates to the National Record Association—Robert Beith, Bowmanville; G. W. Pepper, Toronto.

Dominion Swine Breeders' Association Annual Meeting.

The Dominion Swine-breeders' Association was held in Toronto, February 8th, and was well attended. The President, Mr. Thos. Teasdale, Concord, Ont., in opening the meeting, referred to the scarcity of hogs, the good prices prevailing and in prospect, and advised breeding the best and feeding judiciously, in order to meet the demand for a good type of hog. The report of the Executive showed a prosperous condition, the balance on hand being over \$2,500.

OFFICERS ELECTED FOR 1906.

President, R. H. Harding, Thorndale; Vice-President, D. C. Flatt, Millgrove; General Director, Thos. Teasdale, Concord. Directors—George Green, Fairview; J. E. Brethour, Burford; D. DeCoursey, Bornholm; Wm. Jones, Zenda; W. M. Smith, Scotland; J. C. Smith, Hintonburg; Jos. Featherston, Streetsville. Secretary-Treasurer, A. P. Westervelt, Toronto; Representative Ontario Agricultural College, Prof. G. E. Day, Guelph. Delegates to Fair Boards—National Exhibition, Toronto, D. C. Flatt, Millgrove, and S. Dolson, Alton; Canada Central, Ottawa, P. O. Collins, Jr., and R. Clark; Western Fair, London, D. DeCoursey and Geo. Green; Winter Fair, Guelph, G. B. Hood and Wm. Jones; Winter Fair, Ottawa, D. Barr and R. Clark.

The Dominion Shorthorn Association Annual Meeting.

The 20th annual meeting of the Dominion Shorthorn-breeders' Association, held in Toronto, Feb. 6th, attracted a large attendance, members being present from the Provinces of Ontario, Quebec, Manitoba, Saskatchewan and Alberta. The President, W. G. Pettit, Freeman, Ont., in his opening address congratulated the members on the very prosperous condition of the association, and the very considerable saving of expense in the administration of its affairs under the new system of National Records. The annual report of the Secretary, Registrar and Executive Committee, read by Mr. Henry Wade, Secretary, referred to the prevailing prosperity of Canadian farmers generally, and of Shorthorn breeders in particular. The prospect for trade with foreign countries, in the way of sales of Shorthorn cattle, are encouraging, satisfactory sales having been made during the past year to buyers from Japan, as well as the United States.

The financial statement showed receipts for the past year from all sources, in round numbers, \$20,779, including a balance from the former year of \$3,834; and disbursements, \$16,945, leaving a balance on hand of \$4,834, an increase of \$4,853. The total membership is now 2,538, an increase for the past year of 533. In 1905 the society was paid for 11,763 registrations, and 2,859 transfers and duplicate certificates, as against, in 1904, 9,648 registrations, and 3,735 changes of ownership. Volume 23 of the herdbook, recently published, contains pedigrees of 12,000 animals, an increase of 1,770 over Vol. 22.

The grants made last year to exhibitions in the various Provinces, as prizes for Shorthorns, amounted to \$3,250. The amount granted, provisionally, to exhibitions this year is \$4,800, an increase of \$1,550, distributed as follows: Toronto, \$2,000; Winnipeg, \$750; Calgary, \$400; Regina, \$300; New Westminster, \$100; Halifax, \$100; Quebec, \$200; St. John, \$100; Charlottetown, \$100; Winter Fair, Guelph, \$500; Winter Fair, Amherst, \$150; Winter Fair, Ottawa, \$100.

It was also resolved to duplicate all first prizes won at the International Show, Chicago, by Canadian exhibitors with Canadian-bred Shorthorns in the pure-bred classes, or with steers sired by pure-bred Shorthorn bulls. A motion to accept for registration in the Dominion Shorthorn Herdbook, pedigrees of cattle with ancestry recorded in the English Herdbook up to Vol. 40, was carried.

OFFICERS ELECTED FOR 1906.

President, W. G. Pettit, Freeman; 1st Vice-President, A. W. Smith, Maple Lodge; 2nd Vice-President, T. E. Robson, Ilderton; Secretary-Treasurer, Henry Wade, Toronto. Directors—(C List), W. D. Cargill, Cargill; S. Dymont, Barrie; John Isaac, Markham; A. G. Hopkins, Winnipeg; C. M. Simmons, Ivan; (B List), P.

Talbot, M.P., Lacombe, Alta.; J. T. Gibson, Denfeld; H. Smith, Exeter; John Davidson, Ashburn; John Gardhouse, Highfield; (A List), J. G. Barron, Carberry, Man.; F. W. Brown, Portage la Prairie, Man.; James M. Gardhouse, Weston; E. C. Attrill, Goderich; Thos. Russell, Exeter. Delegates—To Dominion Cattle-breeders' Association, John Isaac, Markham, Ont., and T. E. Robson, Ilderton, Ont.; Toronto Industrial Exhibition, W. G. Pettit, Freeman, and Robert Miller, Stouffville; Western Fair, James Crearer, Shakespeare, and C. M. Simmons, Ivan, Ont.; Central Canada Fair, Ottawa, Norman Wilson, M.P., Cumberland, and D. McLaren, Dunmore, Ont.; Provincial Exhibition, Halifax, N. S., F. L. Fuller, Truro, N.S., and F. W. Thompson, St. Lawrence, N.S.; Provincial Exhibition, New Brunswick, Senator Josiah Wood, Sackville, N.B., and Bliss Fawcett, Sackville, N.B.; Provincial Exhibition, Prince Edward Island, C. C. Gardiner, Charlottetown, P. E. I., and John Richards, Biddeford; Winnipeg Industrial Exhibition, Dr. A. G. Hopkins, Winnipeg, and J. G. Washington, Ninga, Man.; Calgary Exhibition, R. K. Bennett, Calgary, Alta.; C. W. Peterson, Calgary, Alta.; Brandon, Man., Exhibition, Henry Nichol, Brandon, Man., and Wm. Chalmers, Hayfield, Man.; Regina, Assa., Exhibition, George Kinnon, Cottonwood, Assa., and Paul Brett, Regina, Assa.; New Westminster Exhibition, T. W. Patterson, Ladner, B.C., and W. H. Ladner, Ladner, B.C.; Victoria Exhibition, F. C. Pemberton, Victoria, B.C.; Sherbrooke, Que., Exhibition, H. J. Elliott, Danville, Que., and H. W. Burton, Huntingville, Que.; Maritime Winter Fair, Amherst, N.S., J. Rupert Coates, Nappan, N.S., and C. A. Archibald, Truro, N. S. Henry Wade, Secretary-Treasurer, Toronto, Ont.; H. Gerald Wade, Registrar and Editor, Ottawa, Ont.

Ayrshire Breeders' Annual Meeting.

The general annual meeting of the Canadian Ayrshire Breeders' Association, held in Toronto, Feb. 7th, was largely attended by members from the Provinces of Ontario and Quebec. The President, Mr. Alex. Hume, Menie, Ontario, on opening the meeting delivered an excellent address, in which he congratulated the members on the improved demand at advancing prices, and the general success of the breed in milking tests, and of the society, as evidenced by the fact that a larger number of pedigrees have been registered during the past year than in any other year since the inception of the association, there being 2,036 pedigrees recorded and 685 transfers and duplicate certificates issued, as stated in the report of the Registrar, Mr. J. W. Nimmo.

A committee of the directorate, appointed for the purpose, waited upon Hon. Nelson Montath, Ontario Minister of Agriculture, with a request that a more representative class of Ayrshires be secured for the Agricultural College Farm at Guelph. The Minister acknowledged the justness of the complaint as to the class of Ayrshires at that institution, and intimated that steps would be taken looking towards improvement in this regard.

Mr. J. G. Clark, Chairman, presented the report of the Advanced Registry Committee, and read a memorandum received from the Dominion Minister of Agriculture, Hon. Mr. Fisher, intimating his willingness to provide and pay an inspector for one year to supervise yearly tests of cows for milk and butter-fat production, and expressing his wish that the breed societies decide at their annual meetings upon the qualifications required of animals for advanced registration, when the necessary arrangements will be made by the Department for carrying out these plans. A committee, consisting of Messrs. J. G. Clark and W. F. Stephen was appointed to make the necessary arrangements on the part of the association.

On motion, Messrs. R. Ness, Howick, and J. G. Clark, Ottawa, were appointed representatives of the association on the National Record Board. A motion was adopted, asking the Dominion Minister of Agriculture for a grant of \$1,000 towards the salary of an accountant for the National Record Association. A recommendation of the Executive, that the services of Mr. Henry Wade be retained as Honorary Secretary and consulting Registrar, at an annuity of \$200, and that he be made a life member of the association, was adopted unanimously.

ELECTION OF OFFICERS.

The following were, by ballot, elected directors of the association: John McKee, Norwich, Ont.; Alex. Hume, Menie, Ont.; W. W. Ballantyne, Stratford, Ont.; J. G. Clark, Ottawa; Alf. Kains, Byron, Ont.; Wm. Stewart, Menie, Ont.; N. Dymont, Clappison's Corners, Ont.

The Board of Directors met and appointed the following officers for the current year: President, Robert Hunter, Maxville, Ont.; Vice-President, J. G. Clark, Ottawa; Sec.-Treas., W. F. Stephen, Trout River, Que. Vice-Presidents for Provinces—Ontario, Alex. Clark, Brinston's Corners; Quebec, R. Ness, Howick; Manitoba, Dr. S. J. Thompson, St. James; Saskatchewan, J. C. Pope, Regina; British Columbia, A. C. Wells, Sardis; New Brunswick, H. M. Parlee, Sussex; Nova Scotia, Fred S. Black, Amherst; Prince Edward Island, Jas. Easton, Charlottetown.

Judges recommended for leading exhibitions: National, Toronto, A. Kains, Byron, and W. F. Stephen, Trout River; reserve, Geo. McCormack, Rockton. Western Fair, London, John McKee, Norwich; reserve, Geo. McCormack, Rockton. Central Canada, Ottawa, H. Bollert, Cassel.

Canadian Horse-breeders' Association Annual Meeting.

The annual meeting of the Canadian Horse-breeders' Association was held in the Repository, Toronto, Feb. 9th, Dr. Andrew Smith in the chair. The Secretary, Mr. H. Wade, Toronto, read the annual report, which showed a prosperous condition of the society, there being a cash balance on hand of \$5,536. On motion, \$750 was granted as prizes at the Canadian Horse Show, and \$200 to the open-air show, the grant to the Spring Clydesdale and Shire Show being left to the Executive.

The election of officers for 1906 resulted as follows: President, Thomas A. Graham, Claremont; First Vice-President, O. B. Shepherd, Toronto; Second Vice-President, Wm. Hendrie, Jr., Hamilton; Secretary-Treasurer, Henry Wade, Toronto. Directors, representing breed societies: Hackney, Thos. A. Graham, Claremont, and E. C. H. Tisdale, Beaverton; trotting and pacing, Samuel McBride and G. W. Pepper, Toronto; Shires, J. M. Gardhouse, Weston, and W. E. Wellington, Toronto; Clydesdales, Wm. Smith (Columbus), John Bright (Myrtle), and Thos. A. Graham (Claremont); harness, hunter and saddle, J. J. Dixon and O. B. Shepherd, Toronto; pony, W. J. Stark and Dr. J. O. Orr, Toronto; Thoroughbred, D. A. Smith, Toronto; Open-air Parade Association, Noel Marshall and Jesse Applegarth, Toronto.

Dominion Sheep-breeders' Association.

The annual meeting of the Dominion Sheep-breeders' Association, held in Toronto, February 9th, was perhaps more largely attended than any previous annual meeting in the history of the association. This circumstance is doubtless due to the great demand prevailing for breeding sheep, in response to the high prices being paid for wool and mutton, as remarked by the President, Mr. J. M. Gardhouse, of Weston, Ont., in his opening address. The splendid success of Canadian sheep-breeders in prize-winning at the International Exposition at Chicago was also referred to as indicative of the high-class character of Canadian flocks. The representatives of this society and of the National Record Board, appointed to interview American Record Associations, with a view to effecting affiliation of Canadian and American records, reported encouraging prospects of progress in that direction, the proposal being that all pedigrees of sheep registered in American records shall go automatically into the American records.

OFFICERS ELECTED.

The following are the officers elected for 1906: President, J. M. Gardhouse, Weston; Vice-President, John Campbell, Woodville; Secretary-Treasurer, A. P. Westervelt, Toronto. Directors—For Cotswolds, D. McCrae, Guelph; Leicesters, A. Whitelaw, Guelph; Lincolns, John T. Gibson, Denfield; Southdowns, John Jackson, Abingdon; Shropshires, W. A. Dryden, Brooklin; Hampshires and Suffolks, Geo. L. Teller, Paris; Oxfords, T. R. Arkell, Arkell; Dorsets, Col. J. A. McGillivray, Bedford Park; Ontario Agricultural College, Prof. G. E. Day, Guelph; General Director, R. H. Harding, Thorndale. Representatives to National Record Board, Col. McGillivray and J. M. Gardhouse.

Annual Meeting of Dominion Grange.

The annual meeting of the Dominion Grange opened in Victoria Hall, Toronto, on Wednesday, February 7th. Chairman Killam, of the Railway Commission, had notified the Grange, with reference to the resolution passed at last meeting, to have the speed of trains limited while passing unprotected crossings in villages, towns and cities, and to regulate shuntings at important crossings, that the Commission hoped to take this matter up in the near future.

The resolutions included the following:

Abolition of the Senate.
Abolition of farm buildings from taxation.
That no action be taken on the subject of exemption A motion submitted, "That actions for damages against municipalities be limited to such claims as can be made under the common law," was passed with an amendment to provide for some commission or arbitration in such cases.

That the Government be asked to re-consider the legislation of last session regarding salaries, pensions and indemnities.

Resolutions were passed, complaining of the rapidly increasing expenditure by the Dominion Government; requesting that any changes to be made in the customs tariff be in the direction of lowering rather than increasing it; disapproving the system of bounties and subsidies; asking that the railways be not allowed to discriminate in favor of or against any passengers carried in Canadian territory; recommending that express rates be placed under control of the Railway Commission; requesting the Ontario Government to make further efforts to secure a larger proportion of agricultural immigrants for Ontario, and asking the Government to pass such legislation as will effectually protect the public from the automobile nuisance.

A recommendation was adopted: "That the Government be urged to pass at the coming session a bill to tax railways on the same basis as other property; 85 per cent. of taxes collected from all railways to go to the municipalities, and 15 per cent. to the Government; that the Provincial Government should retain full right to control rates to be charged by electrical power companies to the advantage of the public rather than to the undue advantage of the few."

Officers elected are: Master, J. G. Lethbridge, Strathburn; Overseer, R. A. Sutherland, Vice, Secre-

tary, W. F. W. Fisher, Burlington; Treasurer, James Fallis, Newbridge; Chaplain, W. Goodfellow, Stroud; Lecturer, W. L. Smith, Toronto; Steward, A. A. Carruthers, Whithy; Assistant Steward, W. E. A. Peer, Freeman; Gatekeeper, J. Todd, Gilford. Executive Committee—J. G. Lethbridge, W. F. W. Fisher, Jabel Robinson, Middlemarch.

To the deputation which laid some of these recommendations before the Government, Premier J. P. Whitney said the Province should have control of the rates charged by the electrical power companies. He was emphatic as to the need of legislation in regard to automobiles, and also said: "I think there is no harm in my saying the Salvation Army will very likely be enabled by this Government to settle a number of townships within the next year—outside of laborers."



Thomas A. Graham.

President Clydesdale Horse Association of Canada.

The Canadian Clydesdale Association Annual Meeting.

The 19th annual meeting of the Canadian Clydesdale Horse-breeders' Association, held in Toronto, Feb. 8th, was attended by about 200 members, and was one of the largest and most enthusiastic meetings in the history of the society, as a result of the very active demand and high prices prevailing for heavy-draft horses, to which fact the retiring President, Mr. Wm. Smith, of Columbus, Ontario, referred in his exceedingly able address at the opening of the meeting, in which he reviewed the history of the Canadian spring show of Clydesdale and Shire horses from its small beginning to its present high standing. Mr. Smith also referred with pride to the signal success in prize-winning of Canadian exhibitors at the International shows at Chicago, gracefully ascribing praise to the splendid enterprise of the firm of Graham Bros. as leaders in upholding the Canadian standard at those great exhibitions.

A motion was adopted, leaving to the directors the appropriation of the money grants from the society to leading exhibitors to be offered as prizes for Clydesdales.

OFFICERS ELECTED FOR 1906.

Honorary President, F. W. Hodson; President, Thos. A. Graham, Claremont; Vice-President, John Bright, Myrtle; Secretary-Treasurer, Henry Wade, Toronto; Registrar, F. M. Wade, Ottawa. Vice-Presidents for the Provinces—Ontario, Robert Beith, Bowmanville; Manitoba, J. A. S. MacMillan, Brandon; Alberta, John A. Turner, Calgary; British Columbia, H. A. Vasey, Ladner; Saskatchewan, Geo. Mutch, Lundon; Quebec, Robert Ness, Howick; Maritime Provinces, W. W. Black, Amherst. Board of Directors—Peter Christie, M. P., Manchester; Wm. Smith, Columbus; A. G. Gormley, Unionville; James Henderson, Belton; E. C. H. Tisdale, Beaverton; James Torrance, Markham; John Boag, Ravenshoe. Delegates to Fair Boards—Toronto, Peter Christie, M. P., Manchester; Ottawa, Wm. Smith, Columbus, and Geo. Gray, Newcastle; Western Fair, London, J. W. Innes, Woodstock, and Jas. Henderson, Belton; Quebec and Sherbrooke, R. Ness and Geo. Stewart, Howick; Winnipeg, Geo. H. Greig and Henry Nichol. Delegates to the Canadian Horse-breeders' Association—Wm. Smith and John Bright.

Notice of motion was given by Dr. A. G. Hopkins, of Winnipeg, that at next annual meeting the question of a higher standard of registration for imported stallions and mares shall be dealt with, in order to bring them under the same rules as to the number of registered crosses as are required for Canadian-breds to entitle them to registry here.

The Fourth Annual Canadian Clydesdale and Shire Show.

"Greater than has been," aptly describes the fourth annual Canadian Clydesdale and Shire Show, held in the Repository, Toronto, February 7th, 8th and 9th. Favored with ideal weather, patronized by large and enthusiastic crowds, with an entry far in excess of any former year of a class of horses of which Canadians may well be proud, a class that for size, conformation, style, action and quality could hold their own with those at any like exhibition in the world. The judges were Mr. John Bright, of Myrtle, and Mr. Robert Beith, of Bowmanville, assisted by Mr. Robert Graham, of Bedford Park, with Peter Christie, M. P., of Manchester, as referee. That their work was well done, was proven by the almost entire absence of dissatisfaction.

CLYDESDALES.—The first class called was Clyde stallions, foaled previous to January 1st, 1902, of which nine lined up, and a more even lot has seldom, if ever, been seen together in a Toronto show-ring, confirming our oft-repeated remark, that the quality of recent importations shows a decided improvement over those of former years. It took the judges considerable time to decide on the ribbon bearers in this class, as several of them were very even in the more prominent Clydesdale characteristics. The first-prize horse was found in Smith & Richardson's newly imported Olympus, by the banner son of Baron's Pride, Up-to-time, a horse of great scale, with model underpinning. A very close second was R. Ness & Sons' model Clydesdale, The Rejected, a horse that has carried the red and blue out of many a show-ring. Third went to O. Sorby's grand quality horse, Prince of London, a horse that, did he carry a little more weight and feather, would be very hard to turn under. Fourth was found in T. H. Hassard's Breadalbane, a worthy son of Hiawatha, a horse possessing a vast amount of substance and quality, and a strong favorite with many of the onlookers. Fifth went to Wm. Duncan's Prince Orla, a horse that required considerable looking over to fault. Seldom are judges called on to face a harder problem than this class presented, and that their decision gave general satisfaction was plainly evident.

The next class in order was stallions foaled in 1902, of which there were 11 entries, which for size, style, quality and action galore was here in abundance, and the judges had their work cut out for them from the drop of the hat. Here the premier aristocrat was found in Smith & Richardson's lately landed horse, Mascot, a worthy son of Baron's Pride. Second was found in Graham & Renfrew's wonderfully well-put-up colt, Recruit, a horse that in motion instinctively draws all eyes in his direction; third went to Smith & Richardson, on that big, quality colt, Prince Cairnbrogie; fourth to T. H. Hassard's Pearl Finder, a horse of great scale and quality; fifth to James Henderson's Minmore, a stylish, natty-going horse, that had many admirers. Another horse in this class that commanded a great deal of admiration was T. Mercer's Knight of Glamis, that, unfortunately, happened with a slight accident that caused him to go a little lame when moved in the ring, which, of course, was Mr. Mercer's loss, as had he been all right he would have stood a good chance of carrying off very high honors.

Stallions foaled in 1903 were next in order. In this class 14 came out, an exceptionally even, well-balanced lot, that taxed the judge's skill to pick out the winners. Graham & Renfrew's Celtic Lad was finally decorated with the red, a decision that met with the general approval; second went to Chas. Bennett's Moneriffe Baronet, a colt showing a heap of quality; third to Smith & Richardson's Baron Richardson, a colt that had many admirers for higher honors; fourth to J. A. Boag's Lord Durham, an exceedingly good, all-round colt, and only the exceptionally high-class company he was in presented him being at the top; fifth went to Smith & Richardson's Blacon Prince.

Stallions foaled in 1904 were next in order, and the call brought out half a dozen colts that showed a rare combination of size and quality, and of the form that makes future winners. First in this class went to one of Graham Bros.' importations, in Blacon Chime, owned and exhibited by Graham & Renfrew, a very sweet colt, full of quality and a grand mover. Second went to Smith & Richardson's Celtic Prince; third to Smith & Richardson's Baron Smith; fourth to J. A. Boag's Forgiven Chief; fifth to J. A. Boag's Ardnahee, and sixth to A. Aitchison's Gallant James.

Canadian-bred Clydesdale or Shire stallions, foaled previous to January 1st, 1904, made one of the most interesting classes of the show, from the fact that all the candidates were Canadian-bred, and the animals lined up were living testimonials to the fact that Canada and Canadians are quite capable of breeding as good a class of animals as the world produces. Erskine Lyndoch, property of John Vipond, rightly carried off the red. He is a horse of grand quality and very hard to fault. A. Doherty's Golden Conqueror was placed second; he shows a trifle more substance, but not quite so much quality. R. L. Graham's Admiral was placed third; this horse showed size and a goodly amount of quality, but did not move quite so well. O. Sorby's Prince Patriem was placed fourth; a grand, good type of quality horse. Fifth went to J. W. Cowie's Alexander Macqueen.

Stallions foaled on or subsequent to January 1st, 1904. In this class six came forward at the call, and they were a very even lot—a credit to their breeders. Graham & Renfrew's Superior, a colt full of quality and a flashy mover, was placed first; second went to Chas. Stewart's Chief Harmony, a larger colt, but of

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not so much quality; third went to Smith & Richardson's Newbie; fourth to Crawford Bros.' Macqueen's Champion; fifth to Alex. Doherty's Donald Macgregor.

SHIRES.—Shire stallions foaled previous to January 1st, 1903, were four in number; a big, heavy-boned, typical lot. O. Sorby's Bramhope Blackthorn was placed first; a horse of outstanding excellence and an ideal Shire. A very close second was J. Gardhouse & Sons' Coleshill Royal Albert, a horse of not quite so much substance but a little more quality. Third went to Rowland Keevil's Medbourne Heirloom, a large, good kind of horse that many preferred to either of the others. Fourth went to J. B. Hogate's Albert's Model, a horse that could act rings around the others, as what horse could not with "Scotty" on the rein?

Stallions foaled in 1903 were only two, but what was lacking in numbers was more than made up in quality. J. M. Gardhouse's Nateby King was placed first; he is an exceedingly sweet-topped horse, has ideal Shire underpinning, and acts grandly. J. B. Hogate's Falstaff 3rd came in for second place, and a right good one he is.

Stallions foaled in 1904 had only one entry, Thos. Irving's Whitehall Prince.

For the Shire championship, J. M. Gardhouse's Nateby King and O. Sorby's Bramhope Blackthorn were pitted against each other, the red, white and blue being finally pinned on Sorby's Bramhope Blackthorn.

Stallion colts, either imported or Canadian-bred Clydesdales, or Canadian-bred Clydesdales or Shires, foaled subsequent to or on January 1st, 1905. In this class J. W. Cowie's Royal Chattan got first, and Jas. Richardson's What Care I was placed second. Of mares in this class, four came forward, first going to a big quality mare owned by C. R. Bennett, Baron's Lily; second to Chiming Bell, also the property of C. R. Bennett; third to Smith & Richardson's Madge of Hallcroft, and fourth to T. H. Hassard's Miss Gilmour, all imported.

The class for Clydesdale mares imported, those tracing to imported mares and those bred up from Canadian mares, foaled on or subsequent to Jan. 1st, 1903, was not only a strong one, but was made up of a class of mares the like of which has seldom been seen together in this country. They were a very even lot, and kept the people guessing where the ribbons would go. Jas. Richardson's Fragrance, a model of the breed, imported by Prouse & Innis, was placed first. A. G. Gormley's Queen of Maple Grove was placed second. J. A. Boag & Son's Imp. Lucetta got third. Fourth went to T. H. Hassard's Imp. Miss Harrison. Fifth went to W. T. McCaugherty's Imp. Gloriana, and sixth to J. A. Boag & Son's Imp. Rockhall Rosie.

In the class for Canadian-bred Clydesdale or Shire mares foaled previous to Jan. 1st, 1903, were four entries. Smith & Richardson's Baroness was an easy first, and afterwards won the championship as best Clydesdale mare, any age. J. W. Cowie's Heather Erskine was placed second. Jas. Richardson's Lady Union Bank was placed third, and Alfred Mason's June, fourth.

In the class for Canadian-bred Clydesdale or Shire mares, foaled on or subsequent to Jan. 1st, 1903, J. A. Boag & Son captured first on Jessie Macarlie. Second went to Smith & Richardson on Flora Annis; third to Richard Gibson on Belvoir Duchess, and fourth to Smith & Richardson on Maggie Pium.

Shire mares foaled previous to Jan. 1st, 1903. This class brought out two, J. M. Gardhouse's Black Jewel, which was decked with the red, and John Gardhouse & Son's well-known prizewinner, Laura, on whom was placed the second; Black Jewel finally winning the Shire female championship.

In the section for Shire mares foaled on or subsequent to Jan. 1st, 1903, three faced up for honors, all the property of J. B. Hogate, of Weston. First went to Inevly Torfrida; second to Parkside Heroine, and third to Humber Violet.

For heavy draft geldings, three years and over, A. Doherty's Robbie Burns got first. The Dominion Transport Co.'s Charlie, second; the same Company's Prince Arthur, third, and J. W. Cowie's Grey Prince, fourth. The prizes for heavy draft teams, in harness, went, first to O. Sorby on Lily Charming and Miss Charming, second to J. Boag & Son on Bush Maggie and Lady Brown, both imported.

The prize-list will appear in the next issue of "The Farmer's Advocate."

Maritime Auction Sale.

The third Maritime auction sale was held in the Winter Fair Building, at Amherst, on Friday, February 2nd, 1906. Nearly all of the cattle offered were in good breeding condition, and a few of them could be ranked as first-class stock. Only three of the bulls sold for more than \$100. Two of these were from the herd of C. A. Archibald, Truro, and were both sired by that noted old herd bull, Robert the Bruce, by Imp. Indian Chief; the other was from the herd of Oscar Chase, Port Williams, N. S., and was sired by Right Stamp. The highest price paid was \$120, for the 23-months-old roan bull, Royal Bruce, sold to the Amherst Agricultural Society. Three Ayrshire bulls were offered, but were not sold. One Guernsey bull was sold for \$45. Seventeen Shorthorn bulls and nine Shorthorn females were sold. The executive of the Maritime Stock-breeders' Association met the evening before the sale and again on Friday evening. The annual meeting of the association will be held in April.

Notes from Algoma.

I have read your references to New Ontario lately, and thought you would like communications from settlers in this district. I have been in Algoma nine years, and like it well; would not exchange for old Ontario. I bought 160 acres for \$450, now would not take \$3,000; others have done as well. Climate is fine; the summer season is a little short; the winters are cold, but dry and steady. This winter has been exceptionally fine; the winters are the harvest for this new country, as there is a great amount of timber taken out in the shape of lumber, pulp wood, railroad ties, shingle timber, telephone poles, etc. There is always plenty of work at good wages, both for men and teams. Wages in the camps now are \$26 to \$35 and board; teams, \$2.00 to \$2.75, and found. In the spring on the drive they get \$2.00 a day, and good men more. As soon as the mills start in spring, \$1.75 is low, and as high as \$3.00. As to markets for grain and produce, prices are much better here, as the lumber camps need large quantities of hay, oats, potatoes, turnips, carrots, parsnips, cabbage, beets, butter, beef, pork, etc. We raise good crops of hay, oats, barley and peas. Wheat does not seem to do well, although I have seen as fine crops as ever were. All kinds of roots do well; also small fruits.

I live five miles from the busy town of Thessalon, which is a good market for all kinds of produce, also wood. The town has two sawmills, each cutting about 80,000 feet per day; fine woollen mill; two planing mills; foundry, and other necessary shops; one chartered bank and one private bank. Supplies can be bought as cheap as in Toronto. There are three good churches, also schools. The Township of Thessalon is free from hotels and saloons. There is a good gravel road, well graded, with sewer-pipe culverts right through the Township past my place; also telephone line, church and school 1/2 of a mile away, post office 1/2 mile. There are hundreds of farmers in old Ontario who have their farms hopelessly mortgaged; also many on rented farms who have to deny themselves the luxuries and some of the necessities in order to meet their payments, and yet they hang on, afraid to venture to a new country. Why not raise what cash they can and make a new start? I venture to say they will never regret it. This district is far ahead of the Northwest for a poor man, as he can always obtain work at good wages when he can spare time from his farm. Good demand and wages for girls. A. I. HOPKINS.

Algoma.

P. E. Island.

The second day of February (midwinter), fields all bare. There has been very little frost for a month, and almost none the last ten days. The thermometer has kept at about 40 for a week. Roads are almost impassable. Most all Island ports open; no ice even on the north coast. Winter steamers have not missed a trip since they went on the route. This time last winter we were snowed under, railroads all blocked up, and no communication with mainland. What savant can tell us the why of all this? The buds on the fruit and forest trees are developing, and we fear that if we have severe weather later it will discount next year's fruit crop. The ice is so thin on the bays and rivers that very little oyster mud is being secured. This will be quite a drawback to some sections, where they depend so much on this fertilizer. The clover that was so well covered with snow all the first of the winter looks green now, but we fear if this soft weather continues a while longer, and is followed with frost, it may be hoove out. Stock is wintering well, with lots of feed and to spare. Hens are laying well, as a result of the fine weather, and getting out on the bare ground. Pork is mostly marketed; what is left is bringing as high as \$8.50 per hundred (dead). A great deal of beef is going forward to Maritime markets. It looks as if beef would be scarce in the spring; good, fair beef is worth about 7c. dead.

The Seed Show last month was a pronounced success. All enjoyed the visit of that veteran agriculturist, Mr. Rennie. Since the Seed Show a delegation, consisting of F. W. Broderick, Maritime representative of the Canadian Seed-growers' Association, and Mr. Newman, the Secretary of that institution, accompanied by our Commissioner of Agriculture, and Theodore Ross, Instructor in Nature Study, have been addressing meetings at all principal points along the line of the railway. At these meetings there are contests in judging agricultural seeds and weed seeds. Great interest is being developed in this matter, and great good will result. Many farmers do not recognize the seeds of noxious weeds among their grain or grass seed. These meetings will give them that information, and thus help them to select only pure, clean seed. The Institutes are discussing many important subjects connected with the advancement of our agriculture. One of the most interesting of them is "What ought to be done with our Government stock farm?" Everybody is agreed that the way it has been managed in the past, it is little or no use to the general farmer, though he has to pay a large deficit on its work every year. It seems to be the opinion that if it is to exist longer as a Government institution, and be of value to our agriculture, that the stock be culled out and sold to the butcher, except those which are first-class; and that only the very best in both dairy and beef cattle be purchased in future, and that they be better housed and cared for, to make them an object lesson of what good breeding and proper feeding will do. A Government institution that keeps stock that is inferior to that kept by some

of our breeders, and that is run at a loss—though there are very few experiments worked out—is, to say the least of it, of a very questionable benefit to the Province. W. S.

Nova Scotia Farmers' Convention.

The Nova Scotia Farmers' Association met in their annual convention at Truro, on Monday evening, January 29th, President Hugh Frazer in the chair. The President, in his opening address, referred to the general progress of the year, and the fact that we had generally good crops, and prices are now high for almost all kinds of farm products. He also referred to the work of the Agricultural College, and to the Institute work being done throughout the Province, and concluded with a strong admonition for the farmers of Nova Scotia to make an extra effort to produce more, so that we would supply and hold our home market for farm products.

Prof. Frank T. Shutt, of Ottawa, addressed the convention on "Economic Maintenance of Soil Fertility," speaking of the mineral constituents of the soil, of which almost any soil contains an abundance, and of the organic elements which it is our especial duty to preserve and increase. He gave some very excellent hints about the management of farmyard manure, and pointed out that fermentation always means a loss, and that manure is never afterwards worth so much as it is the day it is produced. He also spoke of the value of the liquid stable manure, both on account of its nitrogen and potash, and on account of these elements being held in solution, and, consequently, readily available. Prof. Shutt answered a good many questions in regard to application of manure in winter and supplying, or, at least, preserving the humus in the soil.

The Directors' report, read by the Secretary, reviewed the work of the association for the year, speaking particularly of the Institute work, the work of the Exhibition Commission, and the committee appointed to meet the Tariff Commission. The financial statement showed a balance of \$190.17 on the right side of the ledger.

Tuesday afternoon Secretary Bryan read a paper on "County Farmers' Associations," which elicited a good deal of discussion, and, moved by John Donaldson, it was resolved that, whereas the Institute work in this Province is now carried on from three heads, viz., the Secretary of N. S. Farmers' Association, the Agricultural College and the Provincial Secretary for Agriculture, a committee be appointed to confer with the heads of these several departments, with a view to consolidating the Institute work. Committee, Wm. Vinten, C. H. Black, W. O. Creighton, J. Chute, John Donaldson.

Jos. P. Landry gave a very interesting and instructive address on the production of eggs in winter, describing a cheap and comfortable henhouse, also mode of feeding and management. This paper brought out considerable discussion. W. H. Woodworth pointed out that it is necessary to give some special attention to the management of chickens, in order to make the business profitable, just as it is necessary to give attention to any line of business to make it profitable.

At this juncture of the meeting the Tariff Commissioners, Hon. Messrs. Fielding and Patterson, were ushered into the hall, and Mr. Fielding explained that having a short time in Truro between trains, they were pleased to attend the convention of the Nova Scotia Farmers' Association, and to consider any representations which might be made to them. Mr. E. J. Elliott, of Annapolis, asked for the continuance of the duty on apples, and the reduction of the duty on agricultural implements. S. J. Moore, Shubenacadie, made the point that farming is not paying as large dividends on the capital invested as other industries, and that farmers as a class are in favor of a reduction rather than increase of duties. Other speakers followed along similar lines.

The evening session was a very profitable one, and the programme consisted of an address from Prof. Cumming on "The Live-stock Interests of Nova Scotia"; an address from B. W. Chipman, Secretary for Agriculture, on the work his department had done in improvement of the live stock of the Province, and an address from that grand old veteran seedsman and farmer, Wm. Rennie, on cultivation of the soil and selection of seeds.

Wednesday morning was taken up with reports of committees and election of officers, the following being elected: President, H. Miles Chipman, of Nictaux; 1st Vice-President, C. H. Black, Amherst; 2nd Vice, J. L. McKay, Shelburne. Directors—E. J. Elliott, Bridgetown; S. A. Cook, Yarmouth; Andrew McPherson, Pictou; Malcolm McLeod, Loch Lomond; Wm. Vinten, Antigonishe. Auditors—M. G. De Wolfe, Kentville, and W. McNeil, Digby. Exhibition Commissioners—Jos. R. Wyman, Yarmouth, and David Logan, Pictou.

On Wednesday afternoon the delegates went over to the Agricultural College, and Prof. Shutt gave an address on balanced rations, after which Prof. Cumming conducted the delegates to the stock pavilion, where some specimens of each of the breeds of horses and cattle were paraded, and then the barns and poultry houses were visited, and the delegates expressed themselves as very much pleased with the quality of the stock and the convenience of the arrangements for stabling and feeding.

On Wednesday evening Prof. Sears, Horticulturist of the Agricultural College, gave a lecture on cultivation and management of an orchard, illustrating his lecture by lantern views, and the convention closed with the National Anthem. The convention was the largest ever held, including about eighty delegates from agricultural societies and other organizations. C. H. B.

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MARKETS.

Toronto.

LIVE STOCK.

Export Cattle—Choice, \$4.60 to \$5; good to medium, \$4 to \$4.50; others, \$3.75 to \$4; bulls, \$3.50 to \$4, and cows, \$2.75 to \$3.50.

Butchers' Cattle—Picked lots, \$4.40 to \$4.60; good to choice, \$4.10 to \$4.40; fair to good, \$3.50 to \$4; common, \$2.50 to \$3; cows, \$2.50 to \$3.75; bulls, \$1.75 to \$2.25; canners, \$1.75 to \$2.50.

Stockers and Feeders—Offerings light. Short-keep feeders, \$3.60 to \$4; good feeders, \$3.40 to \$3.65; medium, \$2.50 to \$3.50; bulls, \$2 to \$2.75; good stockers, \$2.80 to \$3.50; rough to common, \$2 to \$2.70; bulls, \$1.75 to \$2.50.

Calves—3½c. to 7c. per lb.
Sheep and Lambs—Sheep, \$4.50 to \$5 for export ewes, and 3.75 to \$4.25 for bucks and culls. Lambs, \$6.50 to \$7.10 per cwt. for grain-fed, and \$5.50 to \$6.50 for mixed.

Hogs—\$6.50 per cwt. for selects, and \$6.25 for lights and fats.

HORSES.

Trade in the local market last week has been stimulated to some extent by the horse show, held on Wednesday, Thursday and Friday, which attracted a number of town members, who were looking for supplies. The offerings were again mainly drafters and blocks, and they met an excellent demand in the sale-rings, as did also a few drivers which came on the market. So far as prices are concerned, there is very little change to record, values as a rule holding steady at previous levels. Dealers discussing the market outlook are very optimistic, and look for a continuance of firm prices and a brisk demand for some time to come. Following is the weekly range of prices: Single roadsters, 15 to 16 hands, \$150 to \$175; single cobs and carriage horses, 15 to 16.1 hands, \$125 to \$170; matched pairs carriage horses, 15 to 16.1 hands, \$300 to \$500; delivery horses, 1,100 to 1,200 lbs., \$150 to \$170; general-purpose and expressers, 1,200 to 1,350 lbs., \$150 to \$180; drafters, 1,350 to 1,750 lbs., \$165 to \$200; serviceable second-hand workers, \$60 to

\$75; serviceable second-hand drivers, \$60 to \$70.

BREADSTUFFS.

Wheat—Ontario—No. 2 white, 79c. to 79½c.; red, 78½c. to 79c.; mixed, 78c. to 78½c.; goose and spring, 74c. to 75c., all at outside points.

Millfeed—Bran, in bags, outside, \$16.50; shorts, \$17 to \$17.50.

Oats—35½c. to 36½c., outside.

Barley—No. 2, 49½c.; No. 3 extra, 46c. to 46½c.; No. 3, 43c. to 43½c.

Peas—79c., outside.

Rye—70c., outside.

Corn—Canadian, 43c., Chatham freights; American firmer, No. 3 yellow, 49½c. to 50c.; mixed, 49c. to 49½c., at Toronto.

Buckwheat—51½c. to 52c.

COUNTRY PRODUCE.

Butter—Creamery, 24c. to 25c.; solids, 23c. to 24c. Dairy lb. rolls, good to choice, 21c. to 22c.; large rolls, 18c. to 19c.; medium, 18c. to 19c.; tubs, 20c. to 21c.; inferior, 17c. to 18c.

Cheese—13½c. for large, and 13½c. for twins.

Eggs—New-laid hold firm. Demand for all kinds active; 24c. for new-laid, 17c. for storage, and 17c. for limed.

Poultry—Choice, dry-plucked are quoted:

Fat chickens, 10c. to 11c.; thin, 7c. to 8c. Fat hens, 7½c. to 8½c.; thin, 6c. to 7c. Ducks, 12c. to 13c.; thin, 6c. to 8c. Geese, 10c. to 11c. Turkeys, 14c. to 15c. for choice small lots.

Dressed Hogs—\$8.50 per cwt. for car lots here.

Potatoes—Ontario, 65c. to 75c. per bag, on track, here; 75c. to 85c., out of store; Eastern, 70c. to 80c., on track, and 80c. to 90c., out of store.

Beans—Prime, \$1.65 to \$1.75 per bush.

Baled Straw—Dull, at \$6 per ton for car lots, on track here.

FARMERS' MARKET.

(Retail Prices.)

Dressed hogs, light, cwt., \$9; heavy, \$8.50. Butter, 24c. to 26c. Eggs, 25c. to 30c. Spring chickens, dressed, 7c. to 8c.; live, 5c. Old, dressed, 7c.; live, 4c. Turkeys, dressed, 14c. to 15c.; live, 12c. Geese, live, 8c.; dressed, 10c. to 12c. Potatoes, per bag, 65c. to \$1.

Onions, peck, 30c. Apples, bbl., \$2 to \$3.50. Beets, peck, 20c. Cabbages, dozen, 50c. Beef, hind quarters, 7c. to 8c.; fore quarters, 4½c. to 5½c.; carcass, 6c. to 7c. Lambs, 10c. to 11c. Veal, 8½c. to 10c. Mutton, 9c. to 9c.

Chicago.

Cattle—Common to prime steers, \$3.40 to \$6.35; cows, \$3 to \$4.40; heifers, \$2.25 to \$5; bulls, \$2 to \$4; calves, \$3 to \$8; stockers and feeders, \$2.40 to \$4.60.

Hogs—Choice to prime, heavy, \$5.95 to \$6.05; medium to good, heavy, \$5.90 to \$6; butchers' weights, \$5.95 to \$6.05; good to choice heavy, mixed, \$5.90 to \$6; packing, \$5.65 to \$6.

Sheep and Lambs—Sheep, \$3.50 to \$6; yearlings, \$5.50 to \$6.40; lambs, \$6.30 to \$7.40.

Buffalo.

Cattle—Steady; prime steers, \$5.50 to \$5.75; shipping, \$4.75 to \$5.40; butchers', \$4.50 to \$5.25; heifers, \$3.50 to \$5; cows, \$2.50 to \$4.50; bulls, \$2.75 to \$4.50.

Veals—\$5.50 to \$9.50.

Hogs—Heavy, \$5.30; mixed, \$5.30 to

\$5.35; Yorkers and pigs, \$5.25 to \$5.30, roughs, \$5.25 to \$5.45; stags, \$3.50 to \$4.

Sheep and Lambs—Lambs, \$6.25 to \$7.70; yearlings, \$6.50 to \$6.65; wethers, \$5.50 to \$6; ewes, \$3.50 to \$5.75; sheep, mixed, \$3 to \$5.60; Western lambs, \$7.25 to \$7.35.

British Cattle Market.

London.—Cattle are quoted at 9½c. to 12c. per lb.; refrigerator, 9c. to 9½c.

Montreal.

Live Stock—Exporters pleased to note improvement in demand and increase in price of cattle in Britain. Feature of local market has been the hog situation. These have been somewhat cheaper, owing to moderate offerings and weakness of the English market for bacon. Prices had ruled high, 7½c. having been refused. Got down last week, however, to 7 1-3c. to 7 2-5c. for selects. Choice steers, 4½c. to 5c.; good to fine cattle, 3½c. to 4½c.; medium, 3½c. to 3¾c., and common, 2½c. to 3¼c. Sheep and lambs firm and steady at 4½c. to 6c., respectively, for best. Calves, \$3 to \$5 each. Some very large milch cows sold at \$50 to \$65 each, the general run of best being \$35 to \$50 each.

Horses—There is a good demand for all sorts of horses for the city trade, but very few enquiries are coming in from the country as yet. Requirements of transport and cartage firms in the city appear to be large, owing, principally, to the bad roads, and this occasions a firm market. There is said to be a good demand from farmers in the markets of the West. Prices here are steady, at the following ranges: Coal-cart horses, weighing 1,350 to 1,450 lbs. each, are selling at \$175 to \$225; express horses, 1,100 to 1,300 each, sell at \$150 to \$200; light draft, 1,400 to 1,500, selling at \$175 to \$225; heavy draft, 1,500 to 1,700 each, \$250 to \$300 each; fine driving and saddle animals bring \$300 to \$500, according to desirability, and broken-down old animals, \$75 to \$125.

Butter—Choice Ontario dairy, 20c.; choicest winter creamery and Octobers, 22c. to 22½c., according to quality, and undergrades down to 21½c.

Cheese—Very little interest at present. The make in England is said to be small, but stocks are rather larger than expected, the result being that the edge is off the market, and the general view of prices is rather less, at 13c.

Poultry—Holders demanding 13c. to 15c. for finest turkeys, according to quality; chickens ranging from 10c. to 12c. Ducks are about 11c., and geese, 10c. to 11c., fowl being from 6c. to 8c. Smaller lots a fraction higher.

Dressed Hogs, etc.—Quotations for fresh-killed, abattoir-dressed stock are 10c. to 10½c.; country-dressed, 8½c. to 9½c., according to quality. Provisions held steady at 12½c. to 13c. for large hams, and 13½c. to 14c. for small, long clear bacon and green flanks being 11½c. Barrel pork ranges from \$19.50 to \$21.50 per bbl., lard being 7½c. for compound, and 12c. to 13c. for pure.

Hides and Tallow—Dealers have been paying shippers 11½c. for No. 1 stock, 10½c. for No. 2, and 9½c. for No. 3, f. o. b., Montreal, and selling to tanners at an advance of ½c. per lb. The quality of the hides is just commencing to deteriorate, and the grub appearing. Receipts are light, also demand. Calf skins, 13c. for No. 1, and 11c. for No. 2, per lb. There is the customary even trade in horse hides at \$2 each for No. 1, and \$1.50 for No. 2. Rendered tallow, 4½c. per lb., and rough tallow, 1½c. to 2½c.

Potatoes—Dealers selling in broken lots, delivered into store, at 70c. per bag of 90 lbs. for best.

Seeds—Clover is now pretty well out of farmers' hands, but is still arriving. Timothy is just starting to come along freely, having been delayed somewhat. Prices are steady, dealers offering shippers \$6.25 to \$7 per bush, 60 lbs., country points, for red clover; \$4 to \$6.50 for alsike; \$2.25 to \$3.50 for timothy per 100 lbs.

Grain—Oats are still strong, and 39c., 40c. and 41c., store, Montreal, is being bid freely, for Nos. 4, 3 and 2, respectively. Stocks are light, and demand fair.

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Life, Literature and Education.

Our Next Literary Society Topic.

Essays on "Popping the Question" are coming in rapidly, and we are now assured that our Literary Society, as judged from results, is an established institution and a recognized success. Next time we are to have a debate. The subject is not a hard one, yet one which is of deep moment to farmers' sons and daughters. Besides, it is one which affords ample room for discussion, as there is much to be said for each side. Here it is:

"Resolved that a High-school Education Qualifying for a Teacher's Certificate is of More Advantage to a Farmer than an Education Qualifying Him for a Diploma from a Business College."

This time we have decided to make the "time" much shorter than previously; we think interest in the Society will be better whetted so. Hence all essays must be sent to this office not later than March 1st. Other rules governing the debate are as follows:

1. Essays must not contain more than 500 words.
2. Take either side you like. Decision will depend more on the strength of the points than the numbers who enter.
3. Full name and address, with nom de plume, if one is used, must accompany each contribution.
4. Write neatly, and on but one side of the paper.

We have every confidence that our readers will join in making this debate a most animated one. When writing, state whether, in event of securing a prize, you would prefer a book or a pin.

An Appreciation of the Novel.

If I am not one of the "Oldest Inhabitants" in the F. A. Home Magazine circle, I am assuredly an old-time reader. As such, I would like to say that whoever originated the idea of the F. A. & H. M. L. S. deserves a vote of thanks from us. It was a happy thought. A friend of mine used to say to me most impressively, "Thoughts are things." Of a truth, they are, and most apparent to the senses when somebody gives them form and life. This Literary Society is going to be very much alive. Therefore, whoever gave the idea reality, should have a still more hearty vote of thanks. It makes our Home Magazine just about perfect. By contribution or suggestion we can all help to make it "Go." I like it because it is a sure indication that there is "something doing." Let us all take a hand in it.

But this is not what I was going to say. I'm one of those men who believe in "speaking out in the sun." My say is about novel-reading, which our friend, Mr. J. Taylor, so sweepingly censures. It can be carried to a debilitating ex-

cess, and not a few novels are a combination of froth and trash, but the standard fiction of the literary world is a precious heritage, and lives because it is the expression of truth in classic form. Our friend reminds me of a speaker who, in my hearing, at a convention, once declared that if he had his way he would "burn 'em all up." Whew! As a youth, I delighted in the fairy tale and "Robinson Crusoe," and hope I'll never grow too old to love them. Childhood is a happy world of romance. Uncle Tom's Cabin is fiction, but it helped powerfully to free enslaved millions. George Eliot's "Romola" is fiction, but it portrays with all the vividness of an ancient seer the peril of tampering with conscience and the consequent deterioration of character. In Victor Hugo's imperishable "Les Miserables" we have enacted before us the lifelong conflict of God and Satan for the mastery of a human soul, and witness in Jean Valjean the glorious recovery from sin and selfishness to Christian service and self-sacrifice. Stevenson, whose rare life was lately portrayed in these pages for us, describes in "Dr. Jekyll and Mr. Hyde" the terrible battle between good and evil, as the Apostle Paul describes it in the seventh chapter of Romans, from whence the novelist drew his inspiration. Hawthorne's "Scarlet Letter" points to the tribulations of conscience, the necessity and nobility of repentance, and the confession of sin. Well would it have been for many a blasted life had the moral of that matchless fiction, so we call it, been early burned into the consciousness. Space fails me to enumerate others, but our well-chosen shelves are full of them. The world owes a debt of gratitude for the reforms and the moral progress which the novel has hastened on. These great books illustrate and emphasize eternal truth, and reverently let me say, the Divine Teacher Himself utilized the very method and vehicle of thought in the story of the "Prodigal Son," and, in scores of other instances.

I hope this friendly discussion will help us to discern what is great and good in the realm of fiction. If we come to understand the novel of merit, and what it has done to cheer, relieve and uplift humanity, we shall be better prepared to appreciate its true place in the world's best literature, and be less sweeping in our condemnations.

T. W. SAVAGE.

John Ruskin.

There are those among us who, reading here or there a chance sentence, glittering like a gem, perhaps, among the more common pebbles of some magazine, and followed by the meager subscription, "Ruskin," have been inspired to seek out some of the ponderous tomes written by this eminent critic of art and life—"Modern Painters," "Seven Lamps of Architecture," "Stones of Venice," etc. Assiduously, perhaps, we have wandered over page after page, wading, sometimes painfully, through much which, by reason of limitations of circumstance, we could grasp but imperfectly, yet held to our reading for the sake of the jewels scattered

here and there for all men, and only to be found by a steadfast going on.

How we have longed during such hours for the purse and the leisure which would permit a European trip, to see with our own eyes the cathedrals he describes; to examine and compare from the originals the pictures of Claude, and Constable, Perugino, Leonardo, Michael Angelo, and, above all, of the much vaunted Turner; and to prove if, by such means, we could get a grip upon even a few of those things which Ruskin has seemed to seize upon with superordinary vision. And yet, possibly, with neither the purse nor the leisure, we might have done better. There are books and books filled with magnificent engravings of the cathedrals. There are prints—devoid of coloring, to be sure, yet giving some clue to the idea—of nearly all the famous paintings, and to be had from two to five cents apiece, quite suitable for framing, too, from Brown & Co., Beverly, Mass.; Perry



John Ruskin.

Co., Malden, Mass.; Cosmos Co., 296 Broadway, New York, and others.

Nevertheless, even without these illustrations, we have felt amply compensated in reading Ruskin. Not only a critic of art, with a grip upon language comparable only to that possessed by some of the best among the poets, he has written some of the finest passages of English in our literature. See, for example, this scintillating bit of description: "Then let us pass farther towards the North, until we see the Orient colors change gradually into a vast belt of rainy green, where the pastures of Switzerland, and poplar valleys of France, and dark forests of the Danube and Carpathians stretch from the mouths of the Loire to those of the Volga, seen through clefts in grey swirls of rain-cloud and flaky veils of the mists of the brooks, spreading low along the pasture lands; and then, farther north still, to see the earth heave into mighty masses of leaden rock and heathy moor, bordering with a broad waste of gloomy purple that belt of field and wood, and splintering into irregular and grisly islands amidst the northern seas, beaten by storm,

and chilled by ice-drift, and tormented by furious pulses of contending tide, until the roots of the last forests fail from among the hill ravines and the hunger of the north wind bites their peaks into barrenness; and, at last, the wall of ice, durable like iron, sets, deathlike, its white teeth against us, out of the polar twilight." Or, this daintest of pastels, whose subject is the cloud-bank of the summer sky: "Who, among the whole chattering crowd, can tell me of the forms and precipices of the chain of tall white mountains that girded the horizon at noon yesterday? Who saw the narrow sunbeam that came out of the south and smote upon the summits until they melted and mouldered away in a dust of blue rain? Who saw the dance of the dead clouds when the sunlight left them last night, and the west wind blew them before it like withered leaves? All has passed, unregretted as unseem. . . . And yet it is not in the broad and fierce manifestations of the elemental energies, not in the clash of the hail, nor the drift of the whirlwind that the highest characters of the sublime are developed. God is not in the earthquake, nor in the fire, but in the still, small voice."

Yet, not only is the charm of Ruskin confined to his fine writing, on account of which, he complained, he was sometimes read rather than for the sake of the truths he tried to bring out. His deepest fascination lies in the bits of philosophy to which he wanders off again and again, and again, whether he describes a Gothic window, a cloud passing over the heavens, or a bit of Venetian glass. And why should he not wander off, since, underlying all his criticisms on art, there heaved continually his one great object—to raise mankind and render it happier. Ruskin was a man with a purpose. Does he speak in appreciation of a painter? It is because he recognizes that upon the true artist lies the "responsibility of a preacher." Does he laud a type of architecture? It is because he perceives the mind of man working through that architecture—all noblest architecture but the expression of a noble idea, a noble manhood. Does he rave over a cloud, or sunbeam, or the shadows beneath a tree? It is because he considers that we should "receive the word of God from clouds, and leaves, and waves." And all of these things he would impress upon us for our good.

He would have mankind reach its highest possible development, and he pleads well the cause of the middle classes—the great horde of manual workers, compelled, too often, to lead mechanical lives. Individual, interested effort, invention, must be cultivated at all hazards, and no man must be a slave. "But, above all," he says, "in our dealings with the souls of other men, we are to take care how we check, by severe requirement or narrow caution, efforts which might otherwise lead to noble issue; and still more, how we withhold our admiration from great excellences because they are mingled with rough faults. Now, in the make-and nature of every man, however rude or simple, whom we employ in manual labor, there are some powers for better things; some tardy

imagination, tottering steps of thought there are, even at the worst; and, in most cases, it is all our own fault that they are tardy or torpid. You can teach a man to draw a straight line, and to cut one; to strike a curved line, and to carve it; and to copy and carve any number of lines or forms, with admirable speed and perfect precision; and you find his work perfect of its kind; but if you ask him to think about any of those forms, to consider if he cannot find any better in his own head, he stops; his execution becomes hesitating; he thinks, and ten to one he thinks wrong; ten to one he makes a mistake in the first touch he gives to his work, as a thinking being. But you have made a man of him for all that. He was only a machine before—an animated tool."

One would like to go on quoting from Ruskin more of these words of wisdom, which each one of us—since to so great an extent each man's mind and body are his own work—may apply in greater or lesser degree to himself. But we have not space. We shall, however, be satisfied if we have so stimulated anyone's curiosity as to induce him to read Ruskin, especially the 6th chapter of the 2nd vol. of "Stones of Venice," in which he has embodied his creed. "Modern Painters," the writing of which occupied him during twenty years, he considered his masterpiece, yet to us this work may be of less value, debarred as we are from acquaintance, at first hand, with his hero, J. M. W. Turner. Nevertheless, "Modern Painters" will well repay the reading. Other volumes are: "Seven Lamps of Architecture," "Unto This Last," "The Two Paths," "Crown of Wild Olives," "Munera Pulveris," "Sesame and Lilies," "Time and Tide by Weare and Tyne," and "Præterita."

As for the life of Ruskin, we have little to do with that, since, in his work, we have Ruskin the man. Suffice it to say that he was born of Scottish parents in London, Feb. 8th, 1819, that he travelled much with his father, who was a wealthy wine merchant, and in those travels developed that keenness of observation and love for beautiful things which became such an instrument in his later life. He was educated at Oxford, where he held for some time the Slade Professorship of Fine Arts. In his reading, Carlyle was his hero, as was Turner in art. On his unhappy marriage the lime-light has already, perhaps, been too vividly thrown. Ruskin died in 1900, at Brantwood, his beautiful estate, on Coniston Water, in Lancashire. He was buried at Coniston, and a monument was erected in Westminster Abbey as a tribute of honor to this, the last great leader of thought of the early Victorian era.

One cannot close without suggesting that a study of Ruskin at this time, when the fight against class privileges in Great Britain has resulted in so sweeping an overthrow of the Conservative Government, might be especially opportune. Ruskin, notwithstanding the fierce opposition which he encountered, was yet seen enough, as remarked by an English writer, to foreshadow much of England's twentieth-century legislation. In an aristocratic era, he was essentially democratic. May not the recent appointment of John Burns—the first laboring man who was ever granted a seat in the English Cabinet—be but a further index to the fact that, as regards social ethics, Ruskin lived ahead of his time?

Dr. William Osler recently recited a quaint old cure for gout: "First, pick a handkerchief from the pocket of a spinster who never wished to wed; second, wash the handkerchief in an honest miller's pond; third, dry it on the hedge of a person who never was covetous; fourth, send it to the shop of a physician who never killed a patient; fifth, mark it with a lawyer's ink who never cheated a client, and, sixth, apply it hot to the gout tormented part. A speedy cure must follow."

News of the Day.

Canadian.

Mr. A. H. U. Colquhoun, of the Toronto News staff, has been appointed Deputy-Minister of Education for Ontario.

The New Minister of Marine and Fisheries.—Hon. Louis Phillippe Brodeur, who was sworn in as Minister of Marine and Fisheries at Ottawa on Feb. 6th, has long been looked upon as one of the most eminent Liberals in the Province of Quebec, especially during his term of office as Minister of Inland Revenue. He was born at Belœil, Quebec, in 1862, and was educated at St. Hyacinthe College and Laval University, from which he was graduated with the degree of LL. B. Subsequently he entered the legal profession, and early in his career became identified with political life. He was speaker of the House of Commons from 1901 to 1904. Besides being an excellent speaker—either in French or English—he has a ready pen, and was at one time on the editorial staff of *Le Soir*. Mr. Brodeur has represented the constituency of Rouville in Parliament since 1891, but is now being pressed to run as candidate for Maisonneuve, the constituency represented by the late Mr. Proulx. Maisonneuve is the largest constituency in Canada, having a population of 80,000, of whom 25,600 are voters.

British and Foreign.

A revolutionist movement is said to be brewing in Persia.

Japan has decided to increase the tonnage of her navy to 400,000.

The Earl of Aberdeen was enthusiastically welcomed in Dublin on his recent state entry as Lord-Lieut. of Ireland.

The first passenger train has successfully passed through the Simplon Tunnel in the Alps. The tunnel, it will be remembered, is 12½ miles long, and its construction cost over 100 lives and 4,000,000 pounds in money.

The conference at Algieras has come to its first grave issue—the question of control of police in Morocco. France wants control of the semi-military police, while Germany objects on the ground that France would thus become virtually the master of Morocco's political future.

A Curious Situation.—In the new Liberal Ministry there is but one Irishman, James Bryce. The Irish Nationalists could not be represented, because they are pledged not to accept any office under the Crown, but to sit with the opposition members until Home Rule is granted. Hence, Mr. Redmond and his followers find themselves in the curious situation of sitting with the Tories under the present Government, whereas they sat with the Liberals during the Balfour regime. Nevertheless, although Ireland is so insignificantly represented in the Cabinet, the Irish have many friends there, among them Sir Henry Campbell-Bannerman himself, John Morley, Herbert Gladstone, John Burns and the Earl of Aberdeen; and although absolute Home Rule may not be granted under the present Government, many reforms of deep moment to Ireland may be looked for in the not far distant future.



Can We be Sure of God?

Then said Jesus to those Jews which believed on Him, If ye continue in My Word, then are ye My disciples indeed; and ye shall know the truth, and the truth shall make you free.—St. John viii.: 31, 32.

"They must upward still and onward, Who would keep abreast of Truth."

"What is truth?" said Pilate, and that is the question men are everywhere asking to-day. Someone has declared that the symbol of this age is an interrogation point. It is not enough to tell intelligent men and women that the Bible says so-and-so, for the Bible itself is on trial; it is being tested and minutely examined, weighed in the balances by learned scholars—will it stand the ordeal? Shall we join the ranks of those who say that God's Word is above man's criticism? Are we afraid that it will not come out of the furnace as gold tried in the fire, but will be destroyed as chaff that is burnt with fire? Let us venture to look this burning question of the present day squarely in the face, it will surely force itself on our attention before long. Anything that is true will bear the closest scrutiny; in fact, it courts inquiry and the more light that can be brought to bear on it the better. Anything that is not true will surely be exposed sooner or later—the sooner the better. Let us never fear to bring our faith to the light; if we shrink from the light, then it is very plain that we have little faith in the truth of the faith we profess. It is well that we should know the "certainty" of those things wherein we have been instructed. In these days, it is not enough to say, "The Bible must be true, because my mother taught me to believe in it." A child naturally accepts his mother's statements confidently, but a man must have stronger grounds for his faith than that. It is folly to shut one's eyes to the results of modern Biblical research, to say obstinately, "I will not listen to a word the higher critics are saying, I will hold the opinions I have always held, without examining them at all." That was the plan adopted by Saul of Tarsus, when he zealously and conscientiously tried to crush out what he considered to be a heresy, without taking any trouble to examine its claims. Though he acted conscientiously, his position was a very narrow and mistaken one.

Now, I don't profess to believe in the higher criticism, but neither do I venture to condemn a movement which has enlisted on its side so many good and learned men. Let them find out all they can about the Bible, and the world will be enriched by their hard study and patient researches. But let us not fear that the ark of God can be shaken. "The Scripture cannot be broken," says our Lord, and it has already endured many dangers and weathered many storms. Gamaliel's advice is, I think, very sensible: "Refrain from these men, and let them alone; for if this counsel or this work be of men, it will come to nought; but if it be of God, ye cannot overthrow it; lest haply ye be found even to fight against God."

We say that the Bible is the "inspired Word of God," but do we all mean the same thing by that statement? One man says: "I believe that the Bible is an infallible Book, and that every word in it is absolutely true." One might think that the 60 or more books which we find bound together for our convenience had dropped down from heaven, ready printed for our benefit in the English language. But, as a matter of fact, we have more than one English version—I have two at my elbow now, with a third version of the Psalms. These differ considerably, and they have been translated from old MSS. which differ even more. If we can only believe that the Bible is the inspired Word of God by accepting the literal inspiration of each word, then which of these many versions are we to believe word for word?

Is our faith in the inspired record of the Creation any less strong because the rocks, which do not lie, have proved beyond the shadow of a doubt that the world was not created in six of our short days? If we could go back to that belief, how cramped and poor it would be, as compared with the grand sweep of God's great Days. So also we may accept the deep, spiritual reality of the story of the Fall, without feeling quite sure that Eve talked to a literal serpent or picked fruit off a literal tree. In fact, it comes home to us with far more force, if accepted spiritually, for we know the sad consequences of listening to the Old Serpent's subtle temptations, and plucking the forbidden fruit from the tree of knowledge of good and evil. We, too, can understand that the punishment for sin is banishment from a happy Garden of Eden, a garden of innocent pleasure from which sin shuts us out.

If not from our own experience, at least we have the overwhelming testimony of a great multitude, which no man can number, that the Bible has proved itself, and is continually proving itself, the "Word of God." This it does, not by historical research—though that is valuable in its place—but by its marvellous power of striking home to the hearts of sinful men. No criticism can dull the edge of God's Word, for it is, in every age, "quick and powerful, and sharper than any two-edged sword, piercing even to the dividing asunder of soul and spirit, and of the joints and marrow, and is a discerner of the thoughts and intents of the heart." Anyone who denies this must deny the personal experience of innumerable witnesses, and measure his bare word against theirs. He must also try to prove a negative. Just because he may not have felt the power of that Sword of the Spirit, that is no proof whatever that others have not felt it. The Bible has inspired untold millions to live noble and beautiful lives, and to hold up to the world grand and lofty ideals. How do we know that such things are true, that love is nobler than selfishness, courage than cowardice, kindness than cruelty? Surely we can all recognize soul-beauty without having to be told that it is beautiful. It is folly to argue with a man born blind about a beautiful sight, and if a man's spirit cannot instinctively recognize the beauty of courage, love or purity, then it is only wasting time to try and prove it to him. We do not need miraculous proof that the Scriptures, which testify of Christ from Genesis to Revelation, hold up before eager, hungry humanity the one ideal life the world has ever seen. Throw all the light possible on that one Figure, hanging between earth and heaven with arms outstretched for love's dear sake, and still no flaw can be found in Him. Still we struggle upward after Him—to whom else can we go for the words of eternal life? We must try to reach the best we see. No criticism of the Bible can shake the confidence of one who "knows" Whom he has believed. Outside proofs may fail when the hours of trial come; they are so far away in the past, and we must have a "present help" in the time of trouble, a present help that never fails a soul that hangeth upon God. He has never left Himself without a witness, not only an outward witness, but the absolute certainty of a soul that hears for itself the Voice of God. Over and over again St. Paul speaks of this inner witness, "the earnest of the Spirit in our hearts." We have still much to learn about the Bible and about God, we must "upward still and onward," if we want to keep abreast of Truth; for truth is not like a dead language, it is glowing with life—life which is shown by growth—and it has a new message for each generation and for each individual soul. God has yet many things to reveal to His listening disciples, who are continually learning more and more of His beautiful secrets. Each one receives from the King a token of favor, a "white stone, and in the stone a new name written, which no man knoweth saving he that receiveth

it." He meets the need of each soul, and His revelation is different to each, as each soul's needs are different.

"God is so good, He wears a fold Of heaven and earth across His face, Like secrets kept, for love untold, But still I feel that His embrace Slides down by thrills through all things made, Through sight and sound of every place, As if my tender mother laid On my shut lids her tender pressure, Half waking me at night, and said, 'Who kissed you in the dark, dear guesser?'"

HOPE.

The Souls of the Children.

"Who bids for the little children—body and soul and brain? Who bids for the little children—fair and without a stain? Will no one bid? What, no one—for their souls so pure and white, And fit for all good or evil which the world on their pages may write?"

"I bid," cries Beggary, howling. "I bid for them one and all! I'll teach them a thousand lessons—to lie, to skulk, to crawl! They shall sleep in my lair, like maggots; they shall rot in the fair sunshine; And if they serve my purpose, I hope they'll answer thine."

"And I'll bid higher and higher," says Crime, with wolfish grin; "For I love to lead the children through the pleasant paths of sin. They shall swarm in the streets to pilfer, they shall plague the broad highway. 'Till they grow too old for pity and ripe for the law to slay."

"The prison and the gallows are plenty in the land; 'Twere folly not to use them, so proudly do they stand. Give me the little children—I'll take them as they're born, And feed their evil passions with misery and scorn."

"Give me the little children, ye good, ye rich, ye wise, And let the busy world spin round, while ye shut your idle eyes; And your judges shall have work, and your lawyers wag the tongue, And the jailers and policemen shall be fathers to the young."

—Charles McKay.

Faith's Stairways.

Long years ago, on a day of thick fog and pouring rain, I ascended a mountain by an old bridle-path over the slippery rocks. A weary, disappointed company we were when we reached the cabin on the summit. But toward evening a mighty wind swept away the bank of mist, the body of the blue heavens stood out in its clearness, and before us was revealed the magnificent landscape stretching away to the sea. That scene was at the time, and has often been since, a sermon to my soul. It taught me that faith's stairways are over steep and slippery rocks, often through blinding storms; but God never loses his hold on us, and if we can endure to the end, he will yet bring us out into the clear shining after rain.

So it's better to hope, though the clouds run low, And to keep the eye still lifted; For the clear blue sky will soon peep through When the thunder cloud is rifted.

—Theodore L. Cuyler, D. D.

The Humorist.

By W. H. Wilson.

Thrice happy is the man who sees The quaint, ludicrous side of things, For in the stress of daily life This insight heals a thousand stings.

The sorrows of a suffering world Are lightened whereso'er he goes, For people hear his genial laugh And cease to think about their woes.

Long live the man whose heart is fresh, Who smiles beneath the darkest skies; Who to this weary world reveals The humor that around us lies!

—Four Track News.



Lawn Planning.

A glance at the accompanying lawn pictures will show, perhaps, more forcibly than any amount of talking, the fatality of making any mistake in lawn-planning. The Italian, a severely formal type, while suitable enough for some situations in public gardens or on immense estates, is,

What enticingly cosy nooks suggested beneath the big trees on the left! Note, too, the masses of shrubbery bunched up towards the house to conceal the foundations and form a sort of softening connection between the house and the rest of the landscape. The fine house in this case, of course, adds to the effect, yet a tasteful vine-covered one of fewer pre-



Formal Italian style of lawn decoration. Not to be recommended for a farm. Stiff, and hard to keep in order.

as will be seen, entirely out of place for the sole lawn on a farm. It is a style of which one must tire wofully in time, looking, as it does, as though forever on dress parade—nothing cosy or restful about it. Who, for instance, could ever think of going out in a "Mary Ann" wrapper to peel a big dish of potatoes in the shade of one of those stiff, dignified "Queen Ann" trees? Or who could ever feel like tumbling down in his

tensions, whether brick, stone, frame, or log, would, in such a situation lose little in point of attractiveness. An ideal way of securing a desirable situation when building a new house is, when practicable, to choose the location in a hardwood grove, then clear out the trees as desired. If, however, there be no grove, it can only be said that trees grow as rapidly in artistic as in in-artistic positions, and it remains for us



Simple and restful. Note the broad spaces and shaded nooks. The massing of low shrubbery near the house is very effective.

to see that the best and most home-like results possible are attained in the planting.

Planning the Garden.

The following, by Eben Rexford, the most eminent florist in America, contains a few hints well worth noticing at this time of the year:

"January is not too early to begin making plans for next summer's garden. Go over the catalogues, and decide on what you will have, and then set about deciding where you will have it. Take into consideration the size, the habit, and the color of the plant before you locate a bed for it. Keep the large plants in the background, graduating them according to their height. Hit-or-miss arrangements are generally most unsatisfactory. The little plants get where the big plants ought to be, and inharmonious colors get jumbled together in a fashion absolutely painful to the eye that is keenly sensitive to color-harmony. Therefore, consider your material well before you decide where you will put it. It is an excellent idea to make a diagram of your garden. Where you have an outline of it on paper, it materializes, in a sense, and you see things more clearly than when you carry the plan in your mind. Therefore, make a sketch of it, and when you have made this sketch over, as very likely you will more than once, before seed-planting time is here, you will have something definite to work to. This, you will find, greatly simplifies matters. We have all seen the amateur gardener, who begins in some part of the garden and makes a bed for Petunias or Asters, or some other plant, and then goes on to make a bed for something else, and so keeps on without giving any thought to the garden as a whole. The result is always unsatisfactory. It lacks coherence, unity and general harmony. Every bed seems striving to be independent of every other bed, precisely in the same manner in which each was planned. It is simply a collection of beds, and not a garden in the true sense of the term. Always consider the garden as a whole, rather than the units of it separately. Bear that in mind, and you will avoid many of the mistakes amateur gardeners fall into. This will oblige you to locate each plant with due regard to its neighbors, and to the place it is fitted to fill, and no colors that clash, no plants that are out of place because of size, will annoy you when too late to remedy matters."

Seasonable Hints.

Don't be in too great a hurry to take your Fuchsias, Geraniums, Gloxinias, etc., up out of the cellar; leave them there resting until on in March. They will do all the better during summer for their period of "hibernation."

If you have Cyclamens in bloom now, see to it that they are never permitted to dry out. A Cyclamen corm which has once become thoroughly dry, whether in bloom or out of it, is usually quite worthless afterwards. Other plants, which will be the better of more water than is given by the regulation "water when dry" rule are Asparagus, Ferns, Begonia, Petunia, Leopard Plant, Sanseveria, Calla. In the case of all of these, the drainage must be good, and no water left standing in the saucer. The Umbrella Plant, being a water plant, cannot have too much water, and is successfully grown by placing the pot in a vessel filled with water. Never spray the foliage of hairy-leaved plants.

If earthworms in the soil are injuring the plants, drive them out by using lime water, a teaspoonful of the lime water to a pint of clear water, applied once a week. The lime water will help also to sweeten the soil, if it has become sour. Two or three applications of weak soda water, put on at intervals of ten days, has also been recommended for the latter purpose.

Name of Plant Wanted.

"Muriel," Mount Wolfe, Ont., writes: "Would you kindly inform me what is the proper treatment during and after the flowering season of the plant commonly called the 'Companion'? Should it be placed in the cellar after flowering?"

Ans.—We do not know the plant you mention under the name given. If you write us a description of it, we may be able to tell, or, perhaps, some reader may be able to give the more scientific name. Practically all flowering plants require to be rested after flowering, put in the cellar and given very little water for the space of two or three months.

Pity Not Yourself.

(By Maxim Gorky, the Russian Novelist.)

Honor to the men who are strong in spirit, the manly men, men who serve truth, righteousness and beauty. We know them not, for they are proud and ask no reward. We see not how joyously they offer up their hearts to be consumed. Illuminating life with a bright blaze, they compel even the blind to see. It is necessary to make the blind see—the blind who are so many. It is necessary that all people should be made to see with terror and disgust how coarse, unjust and senseless is their life. Long live the man who is master of his desires! The whole universe is in his heart. The throes of the whole world, the suffering of humanity is in his soul. The evil and dirt of this life, its falsehood and cruelty, are his enemies. He freely gives all his hours to the war, and his life is filled with tempestuous joys, noble wrath and unbending pride. Pity not yourself—this is the proudest, the most beautiful wisdom on earth. Honor to the man who is incapable of pitying himself. There are two elements in life—decay and combustion. The cowards and the misers choose the first, the manly and generous men the second; everyone who loves the beautiful will know where to seek for the noble and exalted.

The hours of our life are sad, empty hours? Let us fill them with beautiful deeds without pitying ourselves, and then we shall live beautiful hours full of joyous exultation, full of burning pride. Long live the man who cannot pity himself!—[Current Literature.

A Necessity to Letter-writing.

There is a lawyer in Atlanta, who formerly had in his employ a colored boy by the name of Sam. One day, Sam sought out his employer, and stated that he desired the lawyer to see to a "pertikler" business for him. "You see, suh," said he, hesitatingly, "I've got a gal dat I wants you to write a letter to."

"Oh," said the lawyer, with a smile, "and what is to be the subject of your epistle?" The lawyer put to Sam some further interrogatories, such as "Do you want to marry her? Does she love you?" etc., to all of which questions Sam gave a decided "Suttinly, suh!"

The lawyer proceeded, with care, to compose the letter, which, when finished, he submitted for Sam's approval.

"I know you'll 'scuse me, suh," said the darkey, scratching his head, "if I offer a suggestion—some po'try like this:

"De rose am red
An' de vylets blue;
De pink am pretty,
An' so is you."

Without a smile, the lawyer inserted the poetic sentiment desired, and then asked if that were all. After another pause, while Sam again scratched his head by way of reflection, he added: "I think, suh, 'dat dere's one mo' thing dat ougter go in, an' dat is: 'I hopes dat you'll please 'scuse dis pore, mis'able writin' an' de bad spellin'."—[Success.

Opportunity.

By Edward Roland Sill.

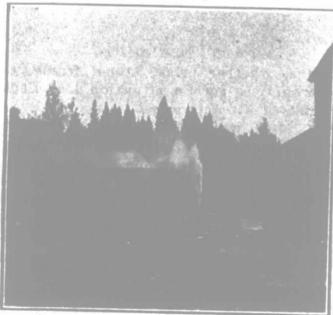
This I beheld or dreamed it in a dream,
There spread a cloud of dust along a plain,
And underneath the cloud, or in it, raged
A furious battle, and men yelled and swords
Wavered, then staggered backward,
hemmed by foes.
A craven hung along the battle's edge,
And thought, "Had I a sword of keener steel—
That blue blade that the king's son bears—but this
Blunt thing—" He snapped and flung it
from his hand,
And, lowering, crept away and left the field.
Then came the king's son, wounded, sore
bestead,
And weaponless, and saw the broken
sword,
Hilt buried in the dry and trodden sand,
And ran and snatched it, and with battle shout
Lifted afresh, he hewed his enemy down
And saved a great cause that heroic day.
—Selected.



"A Winter Evening in the Country."

A friend of mine, living in the country, invited a number of young people, of whom I was one, to spend the evening at her home, which was about five miles from the town in which we lived. She told us she would have a sleigh sent in for us, instead of the uninteresting ride out on the car. Of course, we all accepted, and in due time were ready. We gathered at one house, and got well wrapped in furs and cloaks, with a goodly supply of shawls, in case of a storm. We are just completing our wrapping when the sleigh dashed up to the door. In it was our friend, with a few other young people and the driver. It was an old-fashioned bobsleigh, with plenty of straw in the bottom, and room enough for all. We were soon seated and wrapped in the robes. Then we started with a great jingling of bells and much laughter—everyone ready to enjoy anything in store for her.

It was a beautiful night. The moon was shedding her light on the track ahead of us, making it glimmer like polished steel. The air was just cold enough to be bracing, and between talking and singing, our destination was reached before we were aware of it. We were soon out of the sleigh, and trooping up the veranda steps, as hungry as wolves, and nothing loath to get around the bright, crackling fire that awaited us. By the time we were warmed and unbundled, another sleigh load from the



Fountain at home of Mr. Dickson, St. Joseph's Island, formed by a small hole in the pipe that conveys water to grist mills.

neighborhood drove up. Greetings were soon exchanged, and we were ready for the rosy-cheeked apples, popcorn, hickory nuts and homemade candy which were passed around.

After we had partaken of our lunch, we played games and had music, and then went out for a snowball game in the moonlight. We soon had enough of that, and, having had our faces washed, retired to the house, where we were treated to a drink of rich sweet milk.

By this time it was half-past ten, and we began to get ready for home, fastening each button securely, as the snow was falling. The sleigh soon drove up to the door, and we tumbled in, calling good-bye to those in the door, as we swung out of the gate. Our friend was riding back with us, and she ordered the driver to take us home by another road, which was a little bit longer, but we didn't mind that. It gave us a chance to enjoy the ride more, and enjoying it we were, when we found ourselves in a snow-bank. In turning a corner, the sleigh had tipped. No one was hurt, and we brushed the snow off, and piled in again, with much gusto. We travelled the remaining part of the road without any accident, and unloaded at our door, just stopping long enough to thank our kind friend and throw her a parting snowball before going in.

The girls came in and got warmed before going to their respective homes, and in talking over the events of the evening, we came to the conclusion that this was

one of the most pleasant evenings we had spent, and that the country people were not to be pitied so much as we before thought them to be.

JENNIE SEXSMITH (age 15).
Ridgeway, Ont.

Snowflakes.

A few simple words once sent as an affectionate message to the large band of little ones, who in other lands, as well as here and there in our own, are known as the "Ministering Children's League," their motto being: "No day without a kindly deed to crown it."

Look at the Snowflakes, so tiny and small,
Falling so softly, and covering all
With mantle so pure, so spotless, so white!

Making us think we're in Fairyland quite.
No one can count them, and no one can tell
Just at what moment each beauteous thing fell:

But we know that God sent it, and bade it lie still
In feathery whiteness, its own place to fill.

"But that's such a small one! Sure no one would note
Should a truant wee Snowflake choose elsewhere to float!"

You might not, nor I, but the Father above
Would know it had failed in its errand of love.

So, little League Sisters, will gather and grow
The kind daily deed each has promised, you know,
Till, together, you'll weave a garment as fair
As the mantle of snow which is spread everywhere.

The dear Saviour will watch every effort you make,
And surely will bless it, if done for His sake.

So be true to your motto each dear little Band,
And go lovingly forward, with hand joined in hand.

H. A. B.

Edith is one of the several hundred thousand New York children who live in flats or apartments, and she knew something of the prejudices of owners against small folk. It was in her second school year that the severe teacher propounded the perplexing question:

"Mrs. Jones has seven children; if there were seven more how many children would Mrs. Jones have?"

Among the hands raised on high, none wriggled more insistently than that of Edith, and the teacher turned to her.

"Edith may tell us; how many children would she have?"

"Enough," replied Edith, solemnly and confidently.—[Everybody's Magazine.



The same fountain after Jack Frost has done his work. A pyramid of ice 47 ft. 6 in. high.

What the World Wants.

Men who cannot be bought.
Men whose word is their bond.
Men who put character above wealth.
Men who possess opinions and a will.
Men who see the divine in the common.
Men who will not lose their individuality in a crowd.

Men who will not think anything profitable that is dishonest.

Men who will be as honest in small things as in great things.

Men who will make no compromise with questionable things.

Men whose ambitions are not confined to their own selfish desires.

Men who are willing to sacrifice private interests for the public good.

Men who are not afraid to take chances, who are not afraid of failure.

Men of courage, who are not cowards in any part of their natures.

Men who are larger than their business, who overtop their vocation.

Men who will give thirty-six inches for a yard and thirty-two quarts for a bushel.

Philanthropists who will not let their right hand know what their left is doing.

Men who will not have one brand of honesty for business purposes and another for private life.

Young men who will be true to their highest ideals in spite of the sneers and laughter of their companions.

Clergymen who can hear a louder call than that of public applause, larger salary, or a fashionable church.

Statesmen who will not pack caucuses, pull wires, or be influenced in their policy by personal motives.

Magnanimous souls who do not look upon everybody they meet for the possible use they may be to them.

Men who are true to their friends through good report and evil report, in adversity as well as in prosperity.

Single-hearted people who do not look at every proposition from the point of view of "What is there in it for me?"

Journalists who will not write scurrilous, scandalous articles merely because their editor-in-chief wishes them to do so.

Young men and women who can stand erect and independent while others bow and fawn and cringe for place and power.

Men who do not believe that shrewdness, sharpness, cunning and long-headedness are the best qualities for winning success.

Merchants who will not offer for sale "English woollens" manufactured in American mills, or "Irish linens" made in New York.

Lawyers who will not persuade clients to bring suits merely to squeeze fees out of them, when they know very well that they have no chance of winning.

Men who have the courage to do their duty in silence and obscurity while others about them win wealth and notoriety by neglecting sacred obligations.

Physicians who will not pretend to know the nature of a disease when they do not, or experiment on patients with drugs with which they are not familiar.

Men who are not ashamed or afraid to stand for the truth when it is unpopular, who can say "no" with emphasis, although all the rest of the world say "yes."

Men who have the courage to wear threadbare clothes and to live simply and plainly, if necessary, while their competitors revel in luxury purchased by crooked methods.

Men who have gained such complete control of themselves that they can pass through the most exasperating situations without doing or saying an unpleasant thing, without losing their temper or flying off their center.

Men who can stand before a demagogue and scorn his treacherous flatteries without winking.

—Success.

Recipes.

Fruit Cake.—One cup butter, 1 cup sugar, 1 cup molasses, 3 cups "Five Roses" flour, ½ cup milk, 1 cup chopped raisins, 1 teaspoon cloves, cinnamon and allspice, 2 eggs, 1 teaspoon soda.

Sponge Cake.—One and a half cups sugar, 2 cups "Five Roses" flour, 4 eggs, 1 teaspoon baking powder. Mix, and add 1½ cup hot water.

A Refuge in Distress.

A fellow's father knows a lot
Of office work and such,
But when it comes to things like what
A boy wants, he ain't much.
For when it comes to cuts or warts
Or stone bruise on your toes,
A fellow's father don't know, but
A fellow's mother knows.

A fellow's father, he looks wise
And says: "A-hem! A-hem!"
But when it comes to cakes and pies,
What does he know of them?
He knows the price of wheat and rye
And corn and oats, it's true,
But if you got the leg ache, why,
He don't know what to do.

And if you burned your back the time
That you went in to swim,
And want some stuff to heal it, why,
You never go to him,
Because he doesn't know a thing
About such things as those,
But you just bet, and don't forget,
A fellow's mother knows.

And if your nose is sunburned, till
It's all peeled off, and you
Go to him for some healin' stuff,
He don't know what to do.
He's just as helpless as can be,
But when a fellow goes
And asks his mother, why, you see,
A fellow's mother knows.

A fellow's father knows a lot,
But it ain't any use,
So if a fellow's really got
The leg ache or a bruise,
Or if there's anything he wants
He gets right up and goes
And asks his mother, for, you see,
A fellow's mother knows.

—J. W. Foley, in N. Y. Times.

Mother.

How many buttons are missing to-day?
Nobody knows but Mother.
How many playthings are strewn in the way?
Nobody knows but Mother.
How many thimbles and spoons has she missed?
How many burns on each fat little fist?
How many bumps to be cuddled and kissed?
Nobody knows but Mother.
How many muddy shoes all in a row?
Nobody knows but Mother.
How many stockings to darn, do YOU know?
Nobody knows but Mother.
How many little torn aprons to mend?
How many hours of work must she spend?
What is the time when her day's work will end?
Nobody knows but Mother.
How many cares does the mother-heart know?
Nobody knows but Mother.
How many joys from her mother-love flow?
Nobody knows but Mother.
How many prayers by each little white bed?
How many tears for her chicks has she shed?
How many kisses for each darling head?
Nobody knows but Mother.

Little Wife.

I care not for the rising storm,
I do not heed the cold,
Nor listen to the angry wind
That roars around the world.
I only know my journey's o'er,
For just ahead I see
The light that tells my little wife
Is waiting there for me.

My gentle wife! my darling wife!
My soul's own joy and pride!
Ten thousand blessings on the day
When you became my bride.
I've never known a weary hour
Since I have held your hand—
I would not change my worldly lot
For any in the land.

So sweetly from her loving lips
The blissful welcome falls!
There is no happiness for me
Outside our humble walls.
I had indeed would be my heart,
And dark the world would be
Without this dear, little wife
Who ever waits for me.

—George Cooper.



I had written a big elaborate thing for this week's Ingle Nook, but now I'm not going to publish it. Because, you see, I want to give you chatters all the space I can. The Ingle Nook is the one little spot in which we may gather and talk away without any especial subject, about whatever we choose, and pity would it be were I to monopolize all of the time.

I am glad to see the chatters gathering back in force. Didn't we have a fine grist of them last week?—one coming, and then another, with her perplexities. And I do so hope that you will, all of you, help me in straightening out especially knotty problems—just as though we were all sitting around the grate with our sewing, or our fancywork, each one ready to tell what she knows. . . . I think I made a great sally at the business last week (you see I'm blowing my own horn since there's no one else on hand to blow it for me), but I got completely stuck on those Banbury tarts! And not a soul has come to the rescue yet either! I hope "A Young Housekeeper" isn't getting uneasy, for I know I am.

However, nonsense aside, I am very, very glad, indeed, that our readers are availing themselves of the Ingle Nook as a knot-loosener. We'll try as hard as we can, and if all the knots aren't loosened, why no one will be to blame. . . . Here's another plan I've been thinking of, which I think may be carried on very well along with the question-asking. Along with your question (or without any question at all, if you choose) send your best recipe—just one, and your very best one. In this way we'll soon gather up a fine collection, and it will be so interesting for some of us here in Ontario to try a recipe sent by some one, say in Nova Scotia, or away up among the dear old Laurentians of Quebec, or vice versa. Besides, there is a very interesting plan afoot for our "About the House Department." We wish to put something beside recipes in it sometimes, and having good, tested recipes in the Ingle Nook occasionally, will leave just the opportunity. . . . Now, don't be curious, but keep watching "About the House."

Of course, I don't mean to tie you down to cookery in the Ingle Nook. Chat away in it, about whatever you like. In that way we'll get better acquainted with you; but the question and recipe plan is just one to work in with other things.

Just a word more—it seems dreadfully hard to stop talking to-day—I'm getting completely out of patience with our Maritime Province and Quebec people. They let us Ontarians (wasn't it "Ontarioans" the Toronto News had it a while ago? What a mouthful!) jabber away as much as we please, and seldom even venture to put a word in edge-ways. We really wish to be friendly, but how can we be if there's no response at all from the people of the East? . . . There, we're reaching out our hand as far as we can. Don't you see it? And won't you folk along the St. Lawrence and the sea give us a chance of seeing a big, hearty answering "paw" come back to us with the sunrise?

Well, this time, I'm positively "through." Don't forget the Banbury tarts—and—and—oh, yes, cleaning out tea-kettles, if you know anything sure to be good.

DAME DURDEN.
"The Farmer's Advocate" office, London, Ont.

From Forget-me-not.

Dear Dame Durden,—Allow me to take advantage of your cordial invitation to step into your cosy corner in order to elicit some information. I have been a silent admirer of your circle for a year; and why not before, you will ask. To which query I may reply: We only then entered our subscription for "The Farm-

er's Advocate," and but a few months previously I had abandoned the teaching profession, and accepted, "for better or for worse," a farmer as a husband. How does that sound, Dame Durden—what would you infer the result to be? To my mind, "human words are frail" to express the superiority of my present life on the farm over that of my former occupation—though also a very ennobling profession.

But oh, the daily routine of a farmer's wife! What pleasant variations! What opportunities of assisting and communicating with one's husband! What true domestic happiness in the cheerful evenings spent with our much-loved music! But pardon my wandering from the subject in question. Thus far I have accomplished several of the mysteries of housekeeping, but yet lack the degree of excellence which more experienced farmers' wives have attained.

May I ask how to make nice roast-beef gravy, also a good pudding sauce? Doubtless, both are very simple, but have presented difficulty to an amateur cook.

Have I not written to considerable length for a newcomer? Hoping I am not usurping a former nom de plume in your charming circle, I shall choose

FORGET-ME-NOT.

Dear Forget-me-not, I have enjoyed every word of your little letter, and feel that I know you very well indeed. You see I have taught, and did not love the work tremendously, as I imagine you did not, although, like you, I recognize the necessity and dignity of the profession. Also, like you, I love the farm and the country, which has never been for one minute monotonous to me. So all these things are enough to stir up the "fellow-feeling," aren't they?

Now for your questions: 1. Brown Gravy.—Stir gently over a slow fire, until a golden color, a piece of butter the size of a walnut, mixed with two tablespoonfuls flour. Pour a pint of boiling water on the pan in which the meat was roasted, let cook a minute on the stove, and add gradually to the butter and flour. Cook, stirring all the time; season; put through a colander or potato-ricer, and serve.

2. Brown Sauce.—Cut a few bits of carrot, turnip, onion and tomato into a saucepan with a piece of butter in it. Fry until brown, then add one tablespoonful flour, letting it brown also. Now add the beef gravy as above; stir well, and let boil. Season, and put through a colander, adding a few drops of lemon juice, if desired.

3. Pudding Sauce.—(a) Mix together 1 cup brown sugar, 1 tablespoonful butter, and 1 tablespoonful flour. Pour over this, beating briskly, 1 cup boiling water. Flavor with nutmeg, if liked, or with a tablespoonful of vinegar or lemon juice. Let cook a few minutes. (b) Lemon Sauce.—Mix 1 cup sugar, 1 tablespoon cornstarch, 1 egg and a bit of butter. Pour on 1 pint boiling water, and let cook. Last of all, stir in the juice and grated rind of 1 lemon. (c) Rich Plum-pudding Sauce.—Boil ½ lb. white sugar in ½ cup water to a thick syrup. Add a piece of butter, juice and rind of ½ a lemon, and ½ nutmeg (grated). . . . Of course, since you are just housekeeping for two, you may alter the quantities for all these to suit yourself.

When the young husband reached home he opened the parcel he was carrying and displayed a number of placards, some of which read, "For Show," and others "For Use."

"There!" he exclaimed, triumphantly, "I flatter myself that I have at last solved the problem."

"Solved the problem!" his wife repeated; "what in the world do you intend to do with those cards?"

"I am going to give them to you," he replied, "so that you can put them on the various sofa cushions about the house!"

Horse-sense Reminders.

Don't leave me hitched in my stall at night with a big cob right where I must lie down. I am tied and can't select a smooth place.

Don't compel me to eat more salt than I want by mixing it with my oats. I know better than any other animal how much I need.

Don't think because I go free under the whip I don't get tired. You would move up if under the whip.

Don't think that because I am a horse that weeds and briars won't hurt my hay.

Don't whip me when I get frightened along the road, or I will expect it next time and maybe make trouble.

Don't trot me up hill, for I have to carry you and the buggy and myself too. Try it yourself some time. Run up hill with a big load.

Don't keep my stable very dark, for when I go out into the light my eyes are injured.

Don't say "whoa" unless you mean it.

Teach me to stop at the word. It may check me if the lines break, and save a runaway and smash-up.

Don't forget to file my teeth when they get jagged and I cannot chew my food.

When I get lean it may be a sign my teeth want filing.

Don't ask me to back with blinds on. I am afraid to.

Don't run me down a steep hill, for if anything should give way I might break your neck.

Don't put on my blind bridle so that it irritates my eyes, or so leave my forelock that it will be in my eyes.

Don't be so careless of my harness as to find a great sore on me before you attend to it.

Don't forget the old book that is a friend of all the oppressed, that says: "A merciful man is merciful to his beast."—[Farm Journal.

Men Who Carry Great Policies.

King Edward VII. is one of the most heavily-insured men in the world. No one can estimate what amount the insurance companies will be called upon to pay at his death.

Lord Rothschild's premiums are about \$40,000 annually for a total insurance cover of about one and a quarter millions.

The Earl of Dudley is insured for nearly a million dollars.

Mr. George Vanderbilt's assurances aggregate about five millions.

The late King Humbert of Italy cost the insurance companies seven millions and a half at his death. It is said that the present king carries \$3,500,000.

The German Emperor is a participator in life assurance to the extent of five million dollars.

The Czar of Russia is known to carry four millions, but he is also a continual "risk," for temporary assurances taken out by panic-stricken Russian stockholders. His eldest daughter, the Grand Duchess Olga, is insured for two and a quarter millions, the Czartza for a million and a quarter.

Many distinguished ladies carry large policies. Lady Curzon has about half a million.—[The N. Y. Insurance Journal.

Go to the Flea, Thou Athlete.

As an illustration of industry the ant has, in compliance with the scriptural injunction, been held up as a shining example to the sluggard. As a proof of the saying that "practice makes perfect," science offers the flea in evidence. The flea's gait is a hop; he never walks, nor canters, nor runs. As a supreme result of his long and persistent practice as a hopper we are told he is now able to hop two hundred times his own length. Ye boastful college athletes, to the woods! If the average broad jumper among our athletes should achieve the success of the ordinary flea he would be able to jump about 1,100 feet while, as it is, he has never yet, even with a running start, encompassed twenty-five feet. "Go to the ant, thou sluggard;" go to the flea thou athlete! —[Four Track News.

"12.40 - Chicago Express"
When the announcer says "12.40" he means 12.40



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A STORY OF EARLY DAYS IN GLENGARRY.

By **Ralph Connor**—Rev. C. W. Gordon.

CHAPTER VIII.—Continued.

"Are you going to bed already, Hughie?" she asked.

Quickly Hughie went out to the hall to meet her.

"Yes," he yawned, gratefully seizing upon her suggestion. I'm awfully sleepy. Give me the candle, Jessie," he said, snatching it from her hand. "I want to go downstairs."

"Hughie, you are very rude. What would your mother say? Let me have the candle immediately, I want to get Robbie's stockings."

Hughie's heart stood still. "I'll throw them down, Jessie. I want the candle downstairs just a minute."

"Leave that candle with me," insisted Jessie. "There's another on the dining-room table you can get."

"I'll not be a minute," said Hughie, hurrying downstairs. "You come down, Jessie. I want to ask you something. I'll throw you, Robbie's stockings."

"Come back here, the rude boy that you are," said Jessie, crossly, "and bring me that candle."

There was no reply. Hughie was standing, pale and shaking, in the dining-room, listening intently for Jessie's step. Would she go into his room, or would she come down? Every moment increased the agony of his fear.

At length, with a happy inspiration, he went to the cupboard, opened the door noisily, and began rattling the dishes.

"Mercy me!" he heard Jessie exclaim at the top of the stair. "That boy will be my death. Hughie," she called, "just shut that cupboard! You know your mother doesn't like you to go in there."

"I only want a little," called out Hughie, still moving the dishes, and hearing, to his great relief, Jessie's descending step. In desperation he seized a dish of black currant preserves which he found on the cupboard shelf, and spilled it over the dishes and upon the floor just as Jessie entered the room.

"Lend sakes alive, boy! Will you never be done with your mischief?" she cried, rushing toward him.

"Oh!" he said, "I spilt it." "Spilt it!" echoed Jessie, indignantly, "you needn't be telling me that. Bring me a cloth from the kitchen."

"I don't know where it is, Jessie," cried Hughie, slipping upstairs again with his candle.

To his great relief he saw that Jessie's attention was so entirely taken up with removing the stains of the preserves from the cupboard shelves and dishes, that she for the moment forgot everything else, Robbie's stockings included.

Hurrying to his room, and shading the candle with his hand lest the light should awaken his little brother, he hastily seized the money upon the bedouilt, and after a few moments' searching under the bed, found the strayed quarter.

With these in his hand he passed into his mother's room. Leaving the candle there, he came back to the head of the stairs and listened for a moment, with great satisfaction, to Jessie muttering to herself while she cleaned up the mess he had made. Then he turned, and with trembling fingers he swiftly made up the quarter-dollars into another parcel. With a great sigh of relief he put the two parcels in his pocket, and seizing his candle turned to leave the room. As he did so he caught sight of himself in the glass. With a great shock of surprise he stood gazing at the terrified, white face, with the staring eyes.

"What a fool I was!" he said, looking at himself in the glass. "Nobody will know, and I'll have this back soon."

His eyes wandered to a picture which stood on a little self-feeding

the glass. It was a picture of his mother, the one he loved best of all he had ever seen of her.

There was a sudden stab of pain at his heart, his breath came in a great sob. For a moment he looked into the eyes that looked back at him so full of love and reproach.

"I won't do it," he said, grinding his teeth hard, and forthwith turned to go to his father's study.

But as he left the room he saw Jessie half-way up the stairs. "What are you doing now?" she cried wrathfully. "Up to some mischief, I doubt."

With a sudden, inexplicable rage, Hughie turned towards her.

"It's none of your business! You mind your own business, will you, and leave me alone." The terrible emotions of the last few minutes were at the lack of his rage.

"Just wait, you," said Jessie, "till your mother comes. Then you'll hear it."

"You shut your mouth!" cried Hughie, his passion sweeping his whole being like a tempest.

"You shut your mouth, you old cat, or I'll throw this candle at you." He raised the candle high in his hand as he spoke, and altogether looked so desperate that Jessie stood in terror lest he should make good his threat.

"Stop, now, Hughie," she entreated. "You will be setting the house on fire."

Hughie hesitated a moment, and then turned from her, and going into his room, banged the door in her face, and Jessie, not knowing what to make of it all, went slowly downstairs again, forgetting once more Robbie's stockings.

"The old cat!" said Hughie to himself. "She just stopped me. I was going to put it back."

The memory that he had resolved to undo his wrong brought him a curious sense of relief.

"I was just going to put it back," he said, "when she had to interfere."

He was conscious of a sense of injury against Jessie. It was not his fault that that money was not now in the drawer.

"I'll put it back in the morning, anyhow," he said, firmly. But even as he spoke he was conscious of an infinality in his determination, while he refused to acknowledge to himself a secret purpose to leave the question open till the morning. But this determination, inconclusive though it was, brought him a certain calm of mind, so that when his mother came into his room she found him sound asleep.

She stood beside his bed looking down upon him for a few moments, with face full of anxious sadness.

"There's something wrong with the boy," she said to herself, stooping to kiss him. "There's something wrong with him," she repeated, as she left the room. "He's not the same."

During these weeks she had been conscious that Hughie had changed in some way to her. The old, full, frank confidence was gone. There was a constraint in his manner she could not explain. "He is no longer a child," she would say to herself, seeking to allay the pain in her heart. "A boy must have his secrets. It is foolish in me to think anything else. Besides, he is not well. He is growing too fast." And indeed, Hughie's pale, miserable face gave ground enough for this opinion.

"That boy is not well," she said to her husband.

"Which boy?"

"Hughie," she replied. "He is looking miserable, and somehow he is different."

"Oh, nonsense! He eats well enough and sleeps well enough," said her husband, making light of her fears.

"There's something wrong," re-

About the House.

peated his wife. "And he hates his school."

"Well, I don't wonder at that," said her husband, sharply. "I don't see how any boy of spirit could take much pleasure in that kind of a school. The boys are just wasting their time, and worse than that, they have lost all the old spirit. I must see to it that the policy of those close-fisted trustees is changed. I am not going to put up with those chits of girls teaching any longer."

"There may be something in what you say," said his wife, sadly, "but certainly Hughie is always begging to stay at home from school."

"And indeed, he might as well stay at home," answered her husband, "for all the good he gets."

"I do wish we had a good man in charge," replied his wife, with a great sigh. "It is very important that these boys should have a good, strong man over them. How much it means to a boy at Hughie's time of life! But so few are willing to come away into the backwoods here for so small a salary."

Suddenly her husband laid down his pipe.

"I have it!" he exclaimed. "The very thing! Wouldn't this be the very thing for young Craven. You remember, the young man that Professor Grey was writing about?"

His wife shook her head very decidedly.

"Not at all," she said. "Didn't Professor Grey say he was dissipated?"

"O, just a little wild. Got going with some loose companions. Out here there would be no temptation."

"I am not at all sure of that," said his wife, "and I would not like Hughie to be under his influence."

"Grey says he is a young man of fine disposition and of fine parts," argued her husband, "and if temptation were removed from him he believes he would turn out a good man."

Mrs. Murray shook her head doubtfully. "He is not the man to put Hughie under just now."

"What are we to do with Hughie?" replied her husband. "He is getting no good in the school as it is, and we cannot send him away yet."

"Send him away!" exclaimed his wife. "No, no, not a child like that."

"Craven might be a very good man," continued her husband. "He might perhaps live with us. I know you have more than enough to do now," he added, answering her look of dismay, "but he would be a great help to Hughie with his lessons, and might start him in his classics. And then, who knows what you might make of the young man?"

Mrs. Murray did not respond to her husband's smile, but only replied, "I am sure I wish I knew what is the matter with the boy, and I wish he could leave school for a while."

"O, the boy is all right," said her husband, impatiently. "Only a little less noisy, as far as I can see."

"No, he is not the same," replied his wife. "He is different to me." There was almost a cry of pain in her voice.

"Now, now, don't imagine things. Boys are full of notions at Hughie's age. He may need a change, but that is all."

With this the mother tried to quiet the tumult of anxious fear and pain she found rising in her heart, but long after the house was still, and while both her boy and his father lay asleep, she kept pouring forth that ancient sacrifice of self-effacing love before the feet of God.

(To be continued.)

"Spending the holidays on a farm, I had nabbed a good deal with the garden, an old bachelor, thin, unshaven, dry as you know the type," said a gentleman.

"Sam," I said to him one day, "why don't you marry?"

"Sam only grunted."

"The world's first gardener," I went on to be married."

And he didn't keep his job long afterward," said Sam.—[Scissors.]

"It is of the nature of wisdom to desist from anything."—Masterlink.

Black Jack Cake.—One cup sugar, 1 tablespoon butter, 1 egg, 1 square chocolate (1 cake Baker's), 1 cup milk, 1 teaspoon saleratus, 1½ cups flour, 1 teaspoon vanilla. Melt chocolate; stir in beaten yolk of egg, and half milk; stir, and boil until thick. Reserve white of egg for frosting.

Corn-meal Gems.—Put in sifter, 1½ cups corn meal, 1½ cups flour, 1 teaspoon salt, ½ cup sugar, ½ (small) teaspoon soda, 1 (large) teaspoon baking powder. Sift; then add 1 tablespoon melted butter, 1 full cup buttermilk.

Sponge Cake.—Three-quarters cup sugar, 3 eggs, 3 tablespoons water, 1 teaspoon vanilla, 1 cup flour, 1 teaspoon baking powder.

(Contributed by) AUNT MAGGIE, London, Ont.

SEVEN WAYS TO SERVE POTATOES.

Many housewives know but few ways to serve the potato—the vegetable that finds its way to the table more often than any other. Try some of these methods of preparing them, and see if you do not conclude that the family meals are pleasanter on account of the change:

Quick Potatoes.—Slice raw potatoes thin and boil ten minutes or so in salted water. Drain, sprinkle with a dash of pepper, add small bits of butter, and pour over the whole about half a cupful hot cream. Serve at once in a heated dish.

Syracuse Hot Salt Potatoes.—Boil the vegetables in a rather strong brine, and drain on a piece of cheese-cloth stretched almost tight across the top of a pan. They will be covered with salt crystals, and will be very mealy inside.

Potato Baked with Cheese.—Slice thin four large, boiled potatoes, and arrange in a buttered dish in layers, sprinkling between the layers a little salt and pepper and three ounces of grated cheese. Over the whole pour two eggs beaten into a pint of cream. Bake in a moderate oven about half an hour.

Delmonico Potatoes.—Chop cold boiled potatoes into bits the size of a pea. Make a white sauce of one tablespoonful each of flour and butter creamed, a dash of pepper, half a teaspoonful salt, and two cupfuls milk. When this has cooked until thick, add to each cupful of sauce a generous cupful of the potato and pour into a baking-dish. Sprinkle buttered bread crumbs on top, and bake in a moderate oven till they are a delicate brown.

Potato Puff.—Beat until creamy two cupfuls mashed potato, a little salt, and two tablespoonfuls melted butter. Stir into this two eggs, well beaten, and six tablespoonfuls cream. Pile lightly on a plate that will bear the heat of the oven and bake till light brown in color.

Potato Croquettes.—Season mashed potato with salt, pepper, and onion juice; shape into balls, brush with beaten egg, roll in fine bread crumbs, and fry in hot fat or lard. Occasionally make a little space in the croquette, partially fill with peas, finely chopped meat or asparagus in a white sauce; cover with potato, shape, and proceed as at first described.

Crisp Baked Potatoes.—Peel and quarter the potatoes, place on pietins and sprinkle with salt. Bake in a very hot oven, and after arranging in a hot dish for the table, pour over them a little melted butter.—[Exchange.]

HINTS AND SUGGESTIONS.

Try using a little borax in the water in which white clothes are to be washed, and you will be delighted with the clear, sparkling color thus produced.

Frosting can be whitened with lemon juice. Raspberry will color it pink, and grated rind of an orange strained through a cloth will color it yellow.

When sour milk is to be used in

cooking, a few vigorous whisks with the egg-beater in the bowl or pitcher will mix the curd and whey so thoroughly that it can be poured as easily as cream, and will obviate the unpleasantness of finding the cakes or muffins interspersed with particles of curd. Soda used with sour milk should not be put into milk, but be sifted into the flour like baking powder.

Custard pies or puddings will require only half the usual time for baking if the milk is scalded before being stirred into the beaten eggs and sugar. Custard puddings and cup custards may be steamed instead of baked if the oven is not in the right condition.

To keep the yolk of an egg fresh when only the white is to be used. Make a hole in the shell large enough for the white only to run out, then stand the egg in an eggcup, and keep it in a cool place. The yolk will stay in color and be good for two or three days.

A pail of water standing in a room that has been newly painted will quickly absorb the disagreeable odor of the paint.

When knife-blades come out of their handles, they may be easily mended by filling the hole in the handle with powdered resin, and replacing the blade after making its shaft red-hot in the fire. When cold, the blade will be found to be firmly fixed.

Home.

Pleasure, like charity, begins at home. To a man or woman with no sweet memories of home, the world is, after all, but a battlefield or a wilderness. Some are too poor and some too rich to have a home. Lord Beaconsfield describes a duke who had many residences, and adds: "He had only one misfortune, and it was a great one—he had no home." Still sadder is the lot of the suffering poor, where the fight with penury and misery leaves no place for home pleasures or sanctities. With every complete sketch of happiness there must mingle the vision and the memory of a comfortable home.

Faraday, writing from Switzerland, says, "It is all very well to come away from home, and all very exciting to the imagination to talk of glaciers, lakes, and mountains; but the best effect of a departure from home is to make us value it as it deserves." Southey, too, hits a universal experience when, in the memory of his journeys to and fro, he says: "Oh, dear! oh, dear! there is such a comfort in one's old coat and old shoes, one's own chair and own fireside, one's own writing-desk and own library. 'Don't go to London, papa; you must stay with Edith!' " And then how sweet is the return when the journey is over, and home is reached once more!

Not without a reason is "home" considered the sweetest word in the English tongue, fraught, for all who ever had a true home, with ineffable music. The mother's welcome, the father's tenderness, the child's trust, the fond "What ails thee?"—[Selected.]

The average weight of the brain of a man is three and a half pounds, and of a woman two pounds eleven ounces. A man's brain is twice as large as that of an animal of like size.

The weight of the circulating blood in the body is twenty-eight pounds. At each beat, the heart sends over nine pounds of blood through the veins and arteries, and makes four beats while you breathe once.

The lungs contain about one hundred and seventy-five million cells. You breathe about twenty times in a minute.

The average pulse of an infant is 120 beats a minute, of a youth 80, of an elderly person 60, and the pulse of females is more frequent than that of males.

The Celebrated English Cocoa.

EPPS'S

An admirable food, with all its natural qualities intact. This excellent Cocoa maintains the system in robust health, and enables it to resist winter's extreme cold.

COCOA

The Most Nutritious and Economical.

A Young Man's Face



or his sister's either, should be just as free of pimples, blotches and blackheads as his arms, chest or back. If it isn't what it should be, he can get it so by using our reliable home treatment.

Acne and Pimple Cure.

A dollar pot lasts a month, and will convince any young man or woman of its worth. Don't go about with a blotched face, but get our cure. Fourteen years' experience. Oldest established skin specialists in Canada. Superficial Mole, moles, etc., eradicated forever by our method of electrolysis. Satisfaction guaranteed. Send stamp for booklet F.

GRAHAM DERMATOLOGICAL INSTITUTE
Dept. F. 502 Church Street, Toronto.

CANADIAN PACIFIC

166,570,000

bushels of wheat, oats and barley were harvested from

5,884,800 acres

MANITOBA, ALBERTA and SASKATCHEWAN

in 1905.

Facts and figures of practical interest to the prospective settler are found in

"WESTERN CANADA" & "SETTLERS' GUIDE".

Free upon application to

W. FULTON, C.P.A. 161 Dundas St., London, or C. B. Foster, D.P.A., Toronto.

Learn Dressmaking BY MAIL.

We pay our pupils after taking a course from \$3 per week to \$6 per day, working for us in spare or whole time, no matter where you live, in town or country. Write to-day for particulars. Address:

SANDERS' DRESS CUTTING SCHOOL, STRATFORD, ONT., CAN.

Portrait of the Late Bishop Baldwin

11x15, on heavy plate paper, suitable for framing, together with memoir, the funeral service and sermon on the occasion; price for the two, \$5.00; 5 sets, one address, \$1.00; cash with order.

The London Printing and Lithographing Co. LONDON, ONTARIO.

WEDDING stationery. Young ladies who are interested in what is proper in the matter of stationery for weddings, should send for our booklet. Free for the asking. Latest type faces. Best imported stock. Lynn Side Press, Dept. 5, Simcoe, Ont.

\$12 WOMAN'S SPRING SUITS \$4.50 MADE TO ORDER. Suits to \$15.00. Jackets, Rain-coats, Waists and Skirts at manufacturers' prices. Send for Samples, Cloths and Fashions. (Dept. 37) SOUTHCOTT SUIT CO., LONDON, CAN.

Have left 30 Mammoth Bronze turkeys, heavy birds, from imported prizewinning stock. Toms, 24 to 27 lbs., and hens, 16 to 18 lbs. Write for prices.

T. HARDY SHORE -- Glanworth, Ont

50 MAMMOTH BRONZE TURKEYS sired by imported toms from the best prizewinning stock in America. Write for prices. W. E. WRIGHT, Glanworth, Ont.



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

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

FIFTY acres, clay loam, tile drained; barn, stables, brick house, two wells, large orchard. Schools, churches and post offices (Staffs and Dublin). T. J. Murphy, Barrister, London, Ont.

FARM FOR SALE—83 acres, situated West of Niasouri, lot 14, con. 7; three miles from Thorndale; good brick house, two barns; well watered. Terms reasonable; possession next spring. Jas. Murell, Cobble Hill.

FOR SALE—Tp. Exfrid, Co. Middlesex, 200 acres of land; clay loam. For particulars apply Mrs. Robt. Coulthard, Strathburn, Ont.

FARMERS who desire to rent a portion of their farms on shares, communicate with Brigadier Howell, Toronto.

GROW MUSHROOMS is spare time; a crop all year round. Anyone can grow them from our special spawn. Immense profit. Undesigned will buy your crop. For directions write to-day. Fungus Co., Tecumseh, London, Ont.

IMPROVED farms for sale in the Edmonton district. Candy & Co., Edmonton, Alta.

TENANT WANTED for a fine dairy farm of 215 acres in high state of cultivation. Good opening for a man with small capital. For terms apply Box 39, Dixville, Que.

WANTED—Active, experienced married man to manage first-class dairy farm, 350 acres, with 100 head of cattle. State salary, experience, age and references. A. W. Johnston, Kirby House, Brantford, Ontario.

WANTED by March 20th next, farm foreman. 500 acres crop; 150 cattle; 35 cows milking. Wife board men, wash milk utensils. Comfortable frame house—furnished. Milk, vegetables, fuel supplied. 40 miles Winnipeg. Apply C. C. Castle, Winnipeg.

\$9,000 for 190 acres, 2 1/2 miles east of Brampton. Rich clay loam; well fenced and watered. Good frame house and barns. 75 acres seeded, 17 acres in wheat, and plowing all done. Near school. If not sold before March 1 will be rented. Apply to Ed. Harroff, Brampton.



Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 30 cents.

A FEW ONLY—Select Barred Rock cockerels. Prices right. Emily Spillsbury, Colborne, Ontario.

BUFF Orpingtons—Eggs from the best strain of imported stock; \$2 per 13. H. A. Stevenson, London, Ont.

CHOICE young Guineas, \$1 each or \$1.50 per pair. Jas. Burns, Hampton, Ont.

CUYABOGA FALLS, Ohio. A. Donaghy, Colborne, Ont., Canada. Two cockerels and two pullets arrived all O. K. They are better than I expected. There was three eggs in the coop. Yours truly, J. Armstrong. Mr. Donaghy has a few Barred Rock cockerels left that he is selling at right prices.

FOR SALE—Well-bred Buff Orpington eggs. Price \$1.50 a setting. Wm. Krauel, Roseville, Ontario.

FOR SALE—Cockerels: White Leghorns, Golden Wyandottes, \$1 each. Black Orpington cockerels. Cheap incubator eggs, \$4 hundred from Leghorns. William Daniel, Box 31, Plattsville, Ontario.

FOR SALE—Mammoth Bronze Turkeys, heavy birds, bred from prizewinning imported toms, stock from the first-prize Pan-American winners. Pairs and trios, mated not akin. E. G. Rose, Glanworth, Ont.

MAMMOTH Bronze turkeys; Silver-Grey Dorkings; Barred Rocks. Fine lot of birds from prizewinners. Pairs mated, not akin. Alfred E. Shore, White Oak, Ont.

MAMMOTH Bronze, White Holland, Slate turkeys. Winner of more prizes than all other exhibitors combined at Toronto, London and the Ontario Poultry Show. W. H. Beattie, Wilton Grove.

WHITE Wyandottes, Baldwin females; great layers, mated to prizewinning Martin males. Strongly-fertilized eggs, \$1.50 per setting. Incubator lots special. Chas. A. Goulding, Vinemount, Ontario.

WHITE Wyandottes exclusively. Choice quality and fine winter layers. W. D. Monkman, Bond Head, Ont.

WHITE Wyandotte stock for sale, bred from second Ontario cockerel, good laying strain. Eggs in season. A. Witmer, Berlin, Ont.

WE have a number of choice Barred Rock cockerels for sale—large, vigorous, well-bred birds at \$3 each. A. E. Sherrington, Walkerton, Ont.

For Sale Two choice imported Clydesdale Stallions rising four and five years—one 2,100 lbs. Both choicely bred, sound and sure getters. Wm. Meharey, Russell, Ontario

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.

Veterinary.

FILLY RUBS TAIL.

Yearling filly has the habit of rubbing her tail, and the hair is mostly all rubbed off. J. G. R.

Ans.—Give the tail a thorough washing with strong hot soft soap suds, applied with a scrubbing brush. Then rub well into the skin once daily until the itching ceases, a lotion, composed of 40 grains corrosive sublimate to a pint of water. V.

MARE PASSES BLOOD.

Mare aborted in May, during the eighth month of gestation. For some time before abortion, and ever since, she has passed blood, more plentifully when in season. A. McT.

Ans.—The blood may come from either the womb or the ovaries. If the latter are diseased, it is not probable she will breed again. I would recommend that the womb be flushed out with a gallon of water in which is dissolved 1 dram corrosive sublimate and heated to 100 degrees, Fahr., the next time she comes in season. Then give 1 ounce tincture of iron in a pint of cold water as a drench twice daily for three days. If blood ceases to pass, breed her again; if not, I do not think it would be wise to breed her. V.

Miscellaneous.

FLEMISH RABBITS WANTED.

Could you inform me of a breeder in Canada who has Flemish rabbits for sale? A. C.

Ans.—Any persons breeding Flemish rabbits should note this query and advertise.

SKIM MILK FOR MATURE CATTLE.

Is skim milk any better than water for cattle over a year old? J. O.

Ans.—Skim milk has a high feeding value for cattle of any age. We know dairymen who feed it to their cows instead of to hogs, claiming they thus get better returns. It is rich in the bone and muscle-building elements, which are found in abundance in bran, oil meal and clover and alfalfa hay.

GOSSIP.

James Sharp, of Tweedhill Farm, Rockside, Ont., advertises Aberdeen-Angus bulls in this issue. He is not an exhibitor, but nineteen animals of his own breeding, and their calves, from animals he bred, were shown the past season, all of them taking prizes, including the female championship at Toronto and London; four first and two second at Erin Township Fair. His herd was also represented by six individuals of the first-prize carload of steers at Toronto Junction Show, by first, second and third-prize winners in the Hereford and Angus classes; first for dressed carcass in pure-bred class; first for three export steers; first and third for steer or heifer by Angus sire, and silver cup for best export steer at Ontario Winter Fair.

The annual Provincial auction sales of pure-bred cattle of beef breeds, under the auspices of the Live-stock Branch of the Ontario Department of Agriculture, will be held at the following places: Guelph, Feb. 28th; Port Perry, March 2nd, and Ottawa, March 9th. Some 150 head registered males and females will be offered, and the Department undertakes to pay the freight-bill, up to at least \$2, on any single animal purchased by a resident of Ontario to be shipped to a destination in Ontario. The aim of the Department in holding these sales is to assemble live-stock within access of small buyers, and it is hoped the opportunity will be taken advantage of. Write for catalogue to the Secretary at point of sale, or the Live-stock Branch of the Department of Agriculture, Toronto, Ont.



IF you have any land to be cleared of either stumps, trees or bush—large or small—it will be to your interest to investigate the Swenson's Malleable Stump Puller. We make these machines in five sizes. They are adapted to all kinds of work, and will do it quickly and easily. This stump machine is fully as great an improvement over the old so-called stump machines as the self-binder is an improvement over the cradle or reaper. The work that you have been dreading for years can now be done with pleasure. Our machine was awarded the **GOLD MEDAL**, highest award at **LEWIS AND CLARKE, CENTENNIAL EXPOSITION, PORTLAND, ORE., 1905**. Our catalogue A describes our machines, and has many good testimonials. It will be sent on request. Write to-day, as this ad. may not appear again.

Canadian Swenson's Limited,
Agents Wanted. Kent St., LINDSAY, ONT.

Farm for Sale or Rent 180 ACRES.

Situated on Con. 1, West Half Lot 15, and Con. D, Delaware Tp., Middlesex Co.

Three miles from Southwold station, fourteen miles from London.

A FIRST-CLASS DAIRY OR GRAIN FARM AND LARGE ORCHARD.

Soil, sandy loam and clay loam. About fifty acres river flats. The buildings on farm consist of one and a-half story brick house, two barns granary, implement shed, hog pen, henhouse, and ice house. Possession 1st March, 1906. Terms reasonable. Apply:

Jos. Weld, Farmer's Advocate, London, Ont.

S. J. Prouse, of Innis and Prouse, Woodstock, Ont., advertises that he sails on the "Salacea" for Britain, where he will purchase Clydesdales in Scotland, and also buy Hackneys in England. The firm could not begin to fill orders, especially for fillies. If Mr. Prouse can get enough Clydesdale fillies, they may make a sale at Woodstock about the 25th of March. They have some good, thick, useful stallions they will sell at reasonable prices to make room for more.

This is the last call for sale of Holsteins to be held at the stables of Mr. Chas. E. Eaid, V. S., Simcoe, on Thursday, Feb. 22nd, 1906. See advertisement.

"To do anything in the world worth doing we must not stand back shivering and thinking of the cold and danger, but jump in and scramble through as well as we can."—Sidney Smith.

TRADE TOPICS.

"A RUBBER CALENDAR."—The Canadian Rubber Company, of Montreal, Limited, have just published a handsome trade calendar, size 22 inches by 15 inches, with a sheet for each month. On every page are displayed engravings of some of the company's most noted rubber products, and this feature is very interesting, and quite novel so far as the rubber companies in the Dominion are concerned. The date figures in the calendar are very large, and the banking and other holidays are shown in red. The company has issued many thousands of these calendars, put up in cartons, ready for mailing, and any business firm in the Dominion can obtain one by simply sending a written request to either the head office, Montreal, or any of the sales branches throughout Canada.

DESTRUCTIVE FIRE

In The Frost & Wood Company's Immense Plant at Smith's Falls, Ont.

The main part of the Frost & Wood Company's agricultural implement plant was destroyed by fire the morning of February 8th, the fire being supposed to have started in the vicinity of the dry-kilns. The big machine shop with its very costly machinery, the carpenter shop with its entire contents, the paint shop and the plow shop are a mass of ruins. Their large blacksmith shop was badly damaged, but not ruined. In a short time it can be repaired and in working order again. The loss, while extremely heavy, was well covered by insurance. The large moulding shop, together with a pattern building which adjoined it, was unharmed, and this leaves the company in an excellent position to go right on and supply the demand for their machinery. Their big warehouse, containing the entire season's output, was untouched by the flames, and while the company is hampered for the time being, they are very far from being "out of business," or incapable of supplying machines to fill their orders. The work of clearing away the debris is well under way, and as soon as possible the company will begin to erect new buildings, bigger and better-equipped than ever. In the meantime, they intend to put up some temporary quarters, and in that way look after the large business they handle throughout the entire Dominion. This company was established as a private business in the year 1839, and is, therefore, one of the oldest manufacturing concerns in the Dominion.

THE POSTMASTER TELLS HIS SECRET

His Health Mainly Due to the Use of Dodd's Kidney Pills.

Postmaster Lee Looks Ten Years Younger than His Seventy-Six Years and He Gives the Credit to the Great Canadian Kidney Remedy.

Tabucintac, Cumberland Co., N. B., Feb. 12.—(Special).—Horatio J. Lee, postmaster here, is now in his seventy-sixth year, but so bright and healthy does he look and so energetic is he in his movements that he would easily pass for ten years younger.

"How do I keep young-looking," the postmaster says. "Well, I attribute it largely to my good health, and my health is mainly due to the use of Dodd's Kidney Pills.

"I first learned the value of this Kidney Remedy some years ago. I was then suffering from Kidney Disease. My feet and legs swelled, and I had to rise eight or ten times in the night because of urinary troubles. Six boxes of Dodd's Kidney Pills restored my health at that time, and I have used them at intervals since.

"To anyone afflicted with Kidney Trouble I say 'Dodd's Kidney Pills are all right.' Try them, and you will be sure to find a benefit."

DON'T SPOIL IT.

Use Wells, Richardson & Co.'s Improved Butter Color.

Don't spoil the rich, pure cream that you have gathered for buttermaking by using a common and impure butter color when you do your churning.

Wells, Richardson & Co.'s Improved Butter Color will give your butter the natural golden June tint at this time of the year, and it never fades from the butter. Do not accept or use vile and worthless substitutes. At all times insist upon getting the kind that makes prize butter. Sold by all druggists and general dealers.



The Angle Lamp

The new principle of coal oil lighting employed in The Angle Lamp is fast displacing gas and electricity. Partly due to the quality of light; best in the world. Soft, mellow, restful to the eyes.

Light Without Any Shadow.
You light and extinguish like gas, you can fill without extinguishing. The only lamp of its kind—the light for country homes. Equals the best light of the city man at a fraction of the cost. You can't know all about it until you use it.

Sold On 30 Days Trial.
Send for catalog and full information.
THE BACE SPECIALTY CO.
355 1/2 Yonge Street, Toronto, Ont.

"The dawn is not the distant,
Nor is the night starless;
Love is eternal!
God is still God, and
His faith shall not fail us;
Christ is eternal!"
—Longfellow.

The Extended Popularity of Diamond Dyes

Induces Speculators to Introduce Weak and Worthless Imitations.

DIAMOND DYES, true home helpers and money-savers for mothers and wives, are dear to every woman's heart.

Recently, speculators have gone into the package dye trade with the view of gaining a share of the immense and ever-increasing trade held by the manufacturers of the DIAMOND DYES, but all such efforts will, as in the past, result in failures.

The crude and worthless dyes brought out in opposition to the DIAMOND DYES, can never become popular, for the simple reason that they have not one good quality to boast of. The merchants of Canada who were induced to buy these adulterated package dyes now find them dead and worthless stock.

The progressive and busy druggists and dealers of Canada sell only the DIAMOND DYES, which have an established reputation of over twenty-five years. The modern merchant has not the time or inclination to encourage the sale of worthless and deceptive goods.

If our Canadian women desire full, brilliant and fast colors, they should at all times ask for the DIAMOND DYES, the only guaranteed package dyes in the world. When buying package dyes, see that the words DIAMOND PACKAGE DYES are on each packet handed out by your dealer. Wells & Richardson Co., Limited, Montreal, P. Q., will send free to any address their new Dye Book, Card of Dye Samples, and new book in verse entitled "The Longfellow's Trip to the Klondike." This little book is interesting thousands.

QUESTIONS AND ANSWERS
Miscellaneous.

CLAIMING PAY TWICE.

Mr. A is a tea merchant, delivers tea every ten months, and collects for the same when used. In October, 1904, Mr. A comes with tea, and expects pay for tea used. Mr. B is away, but Mr. A leaves tea and account of tea used, and Mr. B sends Mr. A his money in a week or two and receives a receipt. The following year, Mr. A comes again, leaves tea, and collects for 1905, saying nothing about the year before tea. In Jan., 1906, Mr. B receives statement from Mr. A for tea used, 1904, not being paid. Mr. B in the meantime has moved to Uncle Sam's domain, and has burnt receipt. Can Mr. A collect again? Can Mr. A collect, if he has an agent here?
U. S. A.
Ans.—No.

MONEY BACK.

A wanted a dress made immediately and went to B, a dry goods merchant, who had a tailor B claimed was first-class. Satisfaction guaranteed. A left order with B's tailor, who only had a short time to complete it in, as A was going West, and the day before going B's tailor had the dress completed, he said, and A, who had little time to examine fit, took and tried them on, and said the skirt was too short, but took it away and went West. The skirt and waist proved to be entirely unsatisfactory, and when A came from the West returned the goods, and tailor tried them on and said he could fix them. A took them away again, and found them no better, and tailor tried to fix them again, and they were no better. A lost faith in tailor. Has A got to take another in place of that suit, or can A compel him to refund money, which A paid in full (\$20)?
(MRS.) R. W.

Ans.—We consider that you are entitled to return the garments and recover the money.

MISREPRESENTATION OF SOW.

About two months ago I wrote _____ of Toronto, asking prices for a sow about six months old in pig to his imported hog. In reply, he offered some at \$25, and some better ones at \$35. I ordered one at \$35, and sent the money. He said she was in pig to imported hog, and would weigh 250 lbs. When she arrived, she was in season, and wouldn't weigh 200 lbs. I wrote him twice, but got no answer for over three weeks, when he wrote and told me to send her back and he would send me another; but I had bred her to a boar here in the meantime, and thought I should tell him so before sending her back. I offered to keep her if he would send me \$10. That was two weeks ago, and I have got no answer yet. Can I collect damages from him? He was also to send her pedigree, but hasn't done so yet. Can I send her back, since I have bred her?
Ontario.

Ans.—You can hardly send the animal back now, but we think that having regard to all the circumstances, you are probably in a position to collect damages.

FASTENING WIRE FENCE TO TREES—FOOD FOR OLD HORSE.

1. Suggest method of attaching woven-wire fence to a row of maple trees from six to ten inches in diameter, without danger of doing injury to the trees.

2. Have mare, twenty-five years of age, whose teeth, the veterinarian says, are too far gone to be dressed again. Should grain be boiled for her, or are crushed oats equally easy to digest when not thoroughly masticated?
P. E. R.

Ans.—1. Nail pieces of scantling, two inches thick, and the required length, to trees, using two 4-in. nails to each. Have washers under the heads of nails so that as trees grow the nails will be kept from being drawn through the scantlings and grown over. Fasten fence to scantlings. The trees will be unharmed.

2. Unmasticated food, whether cooked or uncooked, will mostly be passed undigested. Our preference would be for boiled grain, but we would use both, and watch results. Give some roots, if you have them: carrots, turnips, mangels or sugar beets, carrots preferred.

CEMENT BLOCKS, BRICKS OR FRAME?

1. Is a hollow cement-block wall, 10 inches thick, warmer than a two-brick wall, with 2-in. air space, and plastered on inside under strapping?

2. Is a hollow block 9 x 10 x 32 more liable to crack in wall than a block 8 x 10 x 20?

3. How long should blocks be allowed to dry before putting in wall?

4. Which would be the best house, the hollow-block, brick, or frame, the cost being about equal?
FARMER.

Ans.—1. We think not.
2. There should be little danger of cracking with either size, if properly made; but the smaller, shorter block would be preferable.

3. We have known cement blocks to be laid the day after they were made, and no ill result; but the longer they stand the harder they get, and a month is not too long.

4. If the brick is of a good color, we would say brick, but it is largely a matter of taste.

LUMP JAW — PURLINE POSTS — ROOFING MATERIAL.

1. I have a cow coming three years old which has a small lump on the outside of jaw. It is not very big yet, and it is hard. What is the trouble, and what remedy would you suggest?

2. I am going to build a barn this spring, size 45 x 85 feet, and intend to put on a hip roof. Is there any use of having two run of purlines, or is one purline enough, if it is well braced? What size should the purline post be?

3. Which is the best roofing material, shingles or galvanized iron?
G. A. M.

Ans.—1. The trouble is probably actinomycosis or lump jaw. If the lump is movable, have it carefully dissected out, the wound neatly stitched and dressed with five-per-cent. carbolic solution until healed. If lump is solid, the bone is probably affected, and this cannot be done. In any case, give the iodide of potassium treatment. Commence by giving thirty grains daily, and increase the dose ten grains each day, until her appetite and desire for water fail, tears run from her eyes and saliva from her mouth. When any of these symptoms appear, cease giving the drug. Repeat treatment, if necessary, in five or six weeks. Fleming's Lump Jaw Cure, advertised in these columns, is well recommended by many who have used it.

2. If properly braced, we think that one run of purlines on each side would be enough. Hardwood purline posts, eight inches square, would be abundantly strong.

3. Corrugated, galvanized iron makes an excellent roof, and if there are metallic connections with the ground, one that is practically lightning proof, but it costs more than shingles. It has not been used in this country long enough for its lasting qualities to be definitely pronounced upon.

CEMENT OR LUMBER FOR PIGPEN.

As my hog-pen was burned down a few weeks ago, and am thinking of rebuilding, I would like to ask:

1. Which is the better for pigs and hens, cement or lumber?

2. I have a three-foot wall to build on, which would cost more, figuring the gable ends of lumber, wall 10 feet high?

3. Would broken bricks, which were in the fire, do to put in cement wall in place of stone?

4. In building of lumber, which is the better to side up, leave four-inch dead-air space and line up inside, then put on building paper, or put it all on outside?

5. What would be the probable cost of cement or lumber, gravel worth 50c. per load? Building is 24 x 36 x 10 feet high, on top of three-foot wall, floor above, not figuring ground floor?
H. McN.

Ans.—1 and 2. Experienced hog feeders prefer a building with low concrete wall and lumber above, to either concrete or lumber alone. A wall of lumber above the three-foot wall you have would be ideal, according to present-day ideas.

3. Broken brick might safely be put in cement wall if fairly solid, and if cement were well rammed so that all interstices were filled.

4. A wall with dead-air space would be warmest and driest; that is, if walls on either side were so tight as to hinder drafts.

5. Counting the ten feet of wall alone, if made of cement-concrete, nine inches thick, it would cost, including labor, about \$90; a wall of boards, studding and

tar paper, labor included, about \$65, hauling material not counted in either case.

SUPPLEMENTING SKIM MILK.

Am sending my milk to the creamery, can any of your readers tell the best thing to mix with the skim milk to feed young calves?
SUBSCRIBER.

Ans.—Nothing would be more suitable than a small quantity of boiled ground flaxseed. Well-cured clover hay should be given as soon as they will eat it, and later on whole oats or crushed corn and oats, together with a little bran and oil cake. It isn't so much what one feeds, as the judgment and care exercised in feeding it, that tells.

SOWING GRASS SEED IN WINTER.

Would grass seed or clover seed be injured if sown on the meadows at this time of the year, while meadows are bare?
A SUBSCRIBER.

Ans.—There would be nothing gained by sowing this early, and we think that there would be considerable risk of injury to the seed. If it were swelled out with the damp, we would fear the effect of zero weather on it. Sow in March or early April, when there is little snow lying and the ground is honeycombed with frost.

ICE-HOUSE—PIG-PEN.

1. Give plan of a modern ice-house. Would it be advisable to have a compartment large enough to hold a milk can or cans?

2. Have a horse stable built of wood, running north and south. Would you advise building a pigpen on west side as a lean-to of cement, having a hall next to stable with room overhead for bedding, pen to accommodate as a maximum two sows and twelve pigs, with room for feed-bin?
D. H. L.

Ans.—1. If you have an elaborate and costly ice-house, it might be well to have a compartment such as you speak of; but with an ordinary structure (and such answers the purpose best) it had better be dispensed with. An ice-house need not, and should not, cost much. Plant cement posts firmly in the ground so as to form a square of say ten feet, three posts on each side of square, and extending up to plate ten feet from ground. Line up inside, not outside of posts, with inch rough lumber. Roof over as may be desired for sake of appearance, being careful not to have slope toward the sun, and to have openings around the eaves for ventilation. Pack ice solidly, having a foot of sawdust on all sides and on bottom and top. Simple, you say. Yes, but effective. Modern commercial ice-houses are extremely simple.

2. We would not advise building pigpen alongside of horse stable, as it would interfere materially with the light and ventilation of the stable. In regard to cement-concrete for pigpen walls, see answer to similar question elsewhere.

GOSSIP.

R. E. White, Balderson, Ont., is offering some Shorthorns, including two choice young bulls, one of them a full brother to the first-prize and highest-priced calf at Ottawa sale, 1905.

Mr. J. A. Lattimer, of Woodstock, Ont., writes: "We have sold the Clydesdale fillies, Flossie Kirk and Dollie Lattimer, Vol. 14, C. S. B., to J. W. Innis. Our enterprising importer and breeder, Jim, knows the good ones and always has the price when the breeding and quality are right. We have also sold six head of Shorthorns, five of which were of the good old reliable family bred from Imp. Lily, by Warden. These cattle have been, with us, excellent milkers, and make flesh very rapidly when dry. Among the bulls we are now offering for sale is one of the above family, sired by Imp. Bapton Chancellor, that should do good in the herd of a farmer who wants milk and beef. We also have a Kinellar Mina, a rich roan, by Bapton Chancellor. His fifth dam is Mina 6th (imp.), and every top cross is an imported Scotch bull. This is a right good one, and should be at the head of some good herd. The other is a Cruickshank Cecelia, by Lord Durno (imp.), dam Heather Blossom, by Warfare (imp.), grandam Charlotte (imp.), by Gravesend, who sired champions at the Royal. Parties in need of such should see these bulls. We are selling at living prices, and are bound to deal with customers so that we may deal again."

INDIGESTION!

Stomach trouble is not really a sickness, but a symptom. It is a symptom that a certain set of nerves is ailing. Not the voluntary nerves that enable you to walk and talk and act—but the AUTOMATIC STOMACH NERVES over which your mind has no control.

I have not room here to explain how these tender, tiny nerves control and operate the stomach. How worry breaks them down and causes indigestion. How misuse wears them out and causes dyspepsia. How neglect may bring on kidney, heart and other troubles through sympathy. I have not room to explain how these nerves may be reached and strengthened and vitalized and made stronger by a remedy I spent years in perfecting—now known by physicians and druggists everywhere as Dr. Shoop's Restorative (Tablets or Liquid). I have not room to explain how this remedy, by removing the cause, usually puts a certain end to indigestion, belching, heartburn, insomnia, nervousness, dyspepsia. All of these things are fully explained in the book I will send you free when you write. Do not fail to send for the book. It tells how the solar plexus governs digestion and a hundred other things everyone ought to know—for all of us, at some time or other, have indigestion. With the book I will send free my "Health Token"—an intended passport to good health.

For the free book and the "Health Token" you must address Dr. Shoop, Box 52, Racine, Wis. State which book you want.

Book 1 on Dyspepsia.
Book 2 on the Heart.
Book 3 on the Kidneys.
Book 4 for Women.
Book 5 for Men.
Book 6 on Rheumatism.

Dr. Shoop's Restorative Tablets—give full three weeks' treatment. Each form—liquid or tablet—have equal merit. Druggists everywhere.

Dr. Shoop's Restorative.

Executrix's Sale OF HOLSTEINS

Superior strains of "Paul," "DeKol," "Posch" and "Eunice Clay." The property of the estate of the late DANIEL O'MAHONY, Renton, Ont. At the sale stables of CHAS. E. EAD, V. S., Simcoe, Ontario, on

THURSDAY, FEB. 22nd, 1906
at 2 p.m. sharp.

there will be sold by PUBLIC AUCTION 17 thoroughbred and registered Holstein cows, all in good condition. Send for catalogue of breeding. 5 bulls: 1708, Eunice Clay's Paul, sire Sir Paul DeKol Clothilde, dam Eunice Clay; 3146, Sir Schuling Posch, calved November, 1903, sire Sir Abbekirk Posch, dam Annie Schulutz; 1 bull rising 2 years old; 1 bull coming one year old, and 1 bull calf one month old. The young bulls will be registered by date of sale.

Terms: 8 months' credit on furnishing approved joint notes; 5% discount for cash.

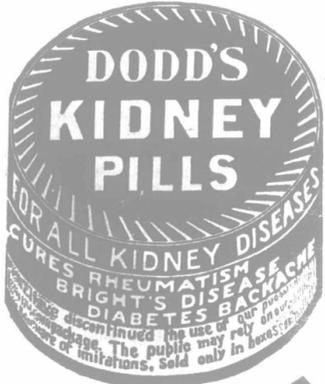
KELLY & PORTER, ELIZA O'MAHONY,
Solicitors for Estate. Renton, Ont.,
Executrix.
CAPT. T. E. ROBSON, Ilberton, Auctioneer.

We call attention to an advertisement in this issue of M. Boyd & Co., Bobcaygeon, Ont. Look it up, if you are interested in heavy horses.

POOR RICHARD JUNIOR'S PHIL-OSOPHY.

The road to failure is full of ruts. An ounce of to-morrow is worth a pound of yesterday.

An optimist sees a silver lining to every cloud; a pessimist bites the silver to see if it is real.—[Saturday Evening Post.



QUESTIONS AND ANSWERS. Miscellaneous.

DOG TRAINER WANTED.

E. W. T. wishes to know if "The Farmer's Advocate" can recommend someone who would undertake the education of a young collie dog.

Ans.—We regret our inability to answer the query, but it occurs to us it would pay some competent dog-trainer to advertise his services through our columns.

NORBURY AGNES.

Kindly publish the name and number of the Hackney mare shown in Jan. 25th number, on page 115, with her breeding.

Ans.—Norbury Agnes 12988, owned by S. B. Carnley, Norbury House, Alford, Lincs., Eng. We are unable to give fuller particulars, as the cut is an English one, secured to illustrate a type and not published for the sake of any particular interest attaching to the individual.

DOES GOOD FEEDING INCREASE THE CREAM?

I have heard it said that good feed will not produce any more cream than poor feed. Is that theory right or wrong?

SUBSCRIBER.

Ans.—Good feed will produce more cream than poor feed, because on it the cows will give more milk. Good feed, i. e., a ration containing a good deal of meal, will also be liable to produce a more churnable milk, so that a little more butter may be made from a given quantity of it. The color and flavor will also be better. But the feeding of concentrated food, such as meals, will not permanently affect the percentage of butter-fat in the milk, according to exhaustive investigations made by experts.

HEIFER FAILS TO BREED.

I have a registered heifer that will be three years old in June. She is in fair order, and ran with bull all summer, but failed to get in calf. She comes in heat every three weeks, and bull runs with her. Please give advice how to get her in calf.

Ont. J. C.

Ans.—The trouble may be due to closure of the womb. A cure may be effected when she is in heat by oiling the hand and arm, inserting the hand into the vulva and passing it forward until the neck of the womb is felt. If the opening into the womb is closed endeavor to force it open with your finger. In some cases the finger is not strong enough, and a smooth, blunt piece of hardwood, half an inch thick, can be used. Breed in about an hour after operating. It would be well to get a veterinarian to attend to the matter.

FEEDING VALUE OF CHESS—PREGNANT MARE SWEATS IN STABLE.

1. What is chess worth per ton for feeding as compared with other grain? In what proportion fed with other grain? What kind of grain is best to mix with chess? What kind of stock is it best fed to?

2. A mare in foal sweats in stable. Give cause and cure. Her hind legs stock.

Ans.—1. Replying to questions asked by your correspondent, I beg to say that I do not know of any carefully-conducted tests to determine the feeding value of chess. We may take it for granted, however, that its feeding value is very low, and I would not advise your correspondent to feed it in any considerable quantity. If he wishes to use it at all, I would advise him to grind it, and mix it in the proportion of not more than one part of chess to four or five parts of other grains. I would prefer to feed it either to fattening cattle or to store cattle.

G. E. DAY.

2. The sweating may be due largely to a heavy coat and warm stable. If so, clipping would prevent it, but it would not be wise to clip at this season. Feed rolled rather than whole oats, with a light bran mash once daily, and a few carrots or turnips. Give the mare regular exercise. One of the symptoms of bots is undue sweating, caused by indigestion, due to the presence of large numbers of these parasites. It is almost impossible to kill them in the stomach by means of medicine. Do not be alarmed at the swelling of the legs, as some mares when pregnant have this predisposition.

ADVERTISING TERMS OF BULL SERVICE.

In keeping a pure-bred bull for service, in order to lawfully collect \$1 per cow served, will I have to place an advertisement in our town paper, making known the terms? ONTARIO FARMER.

Ans.—If each individual concerned understands the terms, no public advertising is necessary.

ENGINEER'S CERTIFICATE.

Where and how could I obtain a Government certificate or license on engine-running? A GRATEFUL READER.

Ans.—We are informed there is no Government license issued for any except marine engineers. We would advise our correspondent to write W. L. Outhwaite, Executive Secretary, Canadian Association of Stationary Engineers, Manning Chambers, 72 Queen St., West, Toronto, Ont.

PROPERTY IN TREES.

To whom do the trees in the highway belong, and can the owner of adjoining property cut and appropriate a dead tree to his own use? FARMER.

Ontario. Ans.—Such trees apparently belong to the municipality, and the owner of adjoining lands can hardly make use of the tree in question as proposed without permission from the municipal council.

TELEPHONE WIRES CROSSING RAILWAY.

We are having difficulty with the Railway Company in making a crossing on a public highway at _____ and other places. We wish to cross over their track with our telephone line, owned by farmers of this section. They tell us we cannot go over. Can they stop us?

Ontario. Ans.—We do not see that you can legally carry your wires across the railway without the company's consent, or an order from the Railway Commission.

TREE GIRDLED—RAPE ON SOD.

1. What is the best means to prevent a good Blenheim Pippin apple tree, ten years old, from dying? It has been girdled all round by lambs, all the bark taken off all round from ground three and a half feet high in the fall. Perhaps some subscriber can recommend how to save the tree.

2. How would rape do sown on sod plowed this spring, the rape to be sown last week in June or first week of July?

Ans.—1. We are afraid that your tree is gone. If any attempt be made to save it, it should be waxed all over the peeled portion at once to prevent drying, and lightly wrapped with paper or cloth. If the bark is not all gone this treatment alone will suffice. Bridge grafting, which consists in inserting scions reaching across the girdled part and joined at either end to living wood will sometimes save a tree; but the distance to be bridged is too great, we fear, in the case you mention.

2. Rape should make a very good growth on such land.

POWER FOR FARM PURPOSES.

What kind of power is most suitable and satisfactory for farmers' use, horse-power, steam, wind or gasoline? Is gasoline liable to set a barn on fire if set inside? Would a large windmill be satisfactory for cutting corn to fill a silo? How large a wheel would be needed to run cutting-box, crusher, wood saw, etc.? If horse-power were used, which is best, a tread or sweep power? D. W. B.

Ans.—Wind power is not suitable for silo filling, as it is both slow and uncertain. In most districts where silos are common, threshers or others have outfits consisting of engine and cutter, with blower attachment, who can be hired by the day for silo filling. We know of companies of farmers who own their own engine and cutter. Either plan seems to give satisfaction. Power windmills are usually from fourteen to sixteen feet in diameter. Tread powers are superior to sweep powers, where only one or two horse-power is required, and especially if used at intervals, and inside. Where fast work is wanted, the sweep powers are best, as more horses can be used. Gasoline engines are convenient, and can be run cheaply. As to how they compare with other farm powers, everything considered, we are not able to express an authoritative opinion. Experience of readers is invited. Gasoline is a dangerous substance, and any supply on hand should be kept underground, and at a considerable distance from the barn.

More and Fertile Eggs

Your hens will positively lay more eggs, and a larger per centage of fertile eggs, if they are given regular doses of Dr. Hess Poultry Pan-a-ge-a with the daily food. It produces this result by the action of bitter tonics which increase the power of digestion, enabling the system of the fowl to extract the maximum amount of egg-making material from the food and convert it into eggs. It also supplies iron for the blood, and the nitrates to assist nature in expelling poisonous materials through the skin.

DR. HESS POULTRY PAN-A-GE-A

is the prescription of Dr. Hess (M. D., D. V. S.), and besides increasing egg production, it cures and prevents poultry diseases. It contains germicides which destroy bacteria, the cause of nearly all poultry diseases. It has the indorsement of leading Poultry Associations of the United States and Canada. Costs but a penny a day for about 30 fowls, and is sold on a written guarantee.

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

Send 2 cents for Dr. Hess 48-page Poultry Book, free.

DR. HESS & CLARK
Ashland, Ohio, U. S. A.
Instant Lice Killer
Kills Lice

The Quincy Incubator, THE HATCHER YOU WANT

Because it is easy to operate, being self-regulating, self-maintaining and self-cleaning. The ventilation is positive. Nothing left to chance. Economical in the use of all.

90 DAYS TRIAL.

Don't fail to investigate the Quincy. It's different from others and our offer is the most liberal. Prices low. Send for Free Catalogue. It will help make more poultry profit.

QUINCY INCUBATOR CO., Box 63, QUINCY, ILL.

\$12.80 For 200 Egg INCUBATOR

Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day.

GEO. H. STAHL, Quincy, Ill.

SHOEMAKER'S BOOK ON POULTRY

and Almanac for 1906 contains 224 pages, with many fine colored plates of fowls true to life. It tells all about chickens—their care, diseases and remedies. All about poultry houses and how to build them. It's really an encyclopedia of chicken-dom. You need it. Price only 14c. C.C. SHOEMAKER, Box 480, FREEPORT, ILL.

\$9,000 Poultry Catalogue

40 kinds Turkeys, Geese, Ducks, Chickens, fowls and eggs cheap. 100 grand pictures. 20 house plans. We make less by, cure disease, etc. Send 10c for mailing catalogue.

Incubators 30 Days Free Trial.
J. R. Brabazon Jr. & Co., Box 31, Delavan, Wis.

NO DISHONESTY INTENDED

A young sport with loud hose and a Panama hat, a cigarette and a pearl-handled "parasol" got off the eastbound train Wednesday. He walked over town and dropped into a restaurant on Main Street and ordered a veal cutlet. The waiter soon brought in the order and placed it before his nibs, the sport. "Do you call that a veal cutlet? Why, that's an insult to a calf to call that a veal cutlet," said the sissy boy. "I don't mean to insult you, sir," said the waiter.—[Sapulpa (I. T.) Light.

WANTED—Wanted persons to grow Mushrooms for us at their own homes. Waste cellar space during winter, and out-house or shed room during spring and summer, can be made to yield an income of \$15 to \$20 per week. No earth required, only manure, which, when treated according to instructions, emits absolutely no odor. Send stamp for illustrated booklet and full particulars.

MONTREAL SUPPLY CO., Montreal,

GOSSIP.

Dr. R. C. Coates, Thamesville, advertises in this issue a handsome trotting stallion. In interested, look up the advertisement, and correspond with, or call upon, Dr. Coates.

CORRECTION OF ADDRESS.—Please note that the address in Mr. W. J. Mead's advertisement of Shorthorns should be Ceylon, not Ayton as in former issues.

See the new advertisement in this issue of the Way Bar Drum. If you know of anyone that has difficulty in hearing, have him send to the above named firm for booklet, explaining the simple device that relieves the difficulty.

Parties desiring to attend the dispersion sale of Mr. Geo. Herrington, to be held Wednesday, Feb. 28th, 1906, will note that morning trains will be met on day of sale at both Brighton and Colborne Station (G. T. R.).

Note the special thirty-day offer of Bogardus & Co., Chemists, Guelph, Ont., to send, free, one regular pint size of New Zealand Dip and Disinfectant with every bottle of Worthington's Stock Tonic ordered at regular price. See their advertisement.

Seaford Sentinel (11524) is an imported Clydesdale stallion, bred by Robert Somerville, Seaford, Bathgate, Eng., sire Montrave Sentinel (10094). He is offered for sale by Robert Anderson, Salford P. O., Ont., five miles from Ingersoll Station. Inspection or correspondence invited.

Attention is again called to the great combination sale of straight-bred Scotch Shorthorns, announced in last week's issue. The date of sale is March 14th, 1906, and will be held on the farm of Mr. Stephen Nicholson, 4 1/2 miles southwest of the town of Parkhill (G. T. R.). Further announcement next week.

Ontario readers should not overlook the advertisement of Joseph Fletcher, of Oxford Mills, Ont., Kemptville Junction Station (C.P.R.), who announces a dispersion auction sale, on March 6, of his entire herd of 50 registered Holstein cattle, imported Shire and Coach horses, work horses, colts and pigs, also his dairy utensils and 300-acre farm. For terms and further particulars turn up the advertisement, or write Mr. Fletcher, mentioning this paper.

Douglas Thomson, Woodstock, Ont., writes: "Trade in Berkshires has been very good. I have shipped pigs to most all parts in the Dominion, also to Quebec and the United States, and have received many complimentary letters from my customers, expressing their satisfaction with the pigs they bought from me. I wish to thank 'The Farmer's Advocate' for the business it has brought me."

TO OWNERS OF SAWMILLS, ETC.

If you require anything in the line of sawmill machinery, sawmills, planers, matchers, wood saws, power axes, gas-line engines, boilers and engines (portable or stationary), grinding mills, etc., write before purchasing to the American Sawmill Machinery Co., 114-118 Liberty St., New York, for their catalogue of up-to-date machinery. You are likely to find in it exactly what you want.

P. D. EDE'S HOLSTEINS.

Everybody who follows the records of the Advanced Registry tests of the Canadian Holstein-Friesian Association is familiar with the name of P. D. Ede, Oxford Centre, Ont., whom we welcome to our advertising columns, this issue. Business is good in Holstein circles these days, and the progressive breeders who have gone in for official testing deserve the good things now coming their way. But even Advanced Registry men need to advertise; in fact, it pays them best of all, for they have something worth offering, and Mr. Ede has got into the swim by putting his announcement in the paper that reaches the men who want good dairy stock. For particulars of offerings, see his advertisement.

DON'T THROW MONEY AWAY



THE SETTING HEN—Her failures have discouraged many a poultry raiser.

You can make money raising chicks in the right way—lots of it.

No one doubts that there is money in raising chickens with a good incubator and brooder.

Users of the Chatham Incubator and Brooder have all made money. If you still cling to the old idea that you can successfully run a poultry business using the hen as a hatcher, we would like to reason with you.

In the first place, we can prove to you that your actual cash loss in eggs, which the 20 hens should lay during the time you keep them hatching and brooding, will be enough to pay for a Chatham Incubator and Brooder in five or six hatches, to say nothing whatever of the larger and better results attained by the use of the Chatham Incubator and Brooder.

If you allow a hen to set, you lose at least eight weeks of laying (three weeks hatching and five weeks taking care of the chickens), or say in the eight weeks she would lay at least three dozen eggs. Let the Chatham Incubator on the hatching, while the hen goes on laying eggs.

Our No. 3 Incubator will hatch as many eggs as twenty setting hens, and do it better. Now, here is a question in arithmetic:—

If you keep 20 hens from laying for 8 weeks, how much cash do you lose if each hen would have laid 3 dozen eggs, and eggs are worth 15 cents per dozen? Ans.—\$9.00.

Therefore, when the Chatham Incubator is hatching the number of eggs that twenty hens would hatch, it is really earning in cash for you \$9.00, besides producing for your profit chicks by the wholesale, and being ready to do the same thing over again the moment each hatch is off.

Don't you think, therefore, that it pays to keep the hens laying and let the Chatham Incubator do the hatching?

There are many other reasons why the Chatham Incubator and Brooder outclasses the setting hen.

The hen sets when she is ready. The Chatham Incubator is always ready. By planning to take off a hatch at the right time, you may have plenty of broilers to sell when broilers are scarce and prices at the top notch. If you depend on the hen, your chicks will grow to broilers just when every other hen's chicks are being marketed, and when the price is not so stiff.

The hen is a careless mother, often leading her chicks amongst wet grass, bushes, and in places where rats can confiscate her young.

The Chatham Brooder behaves itself, is a perfect mother and very rarely loses a chick, and is not infested with lice.

Altogether, there is absolutely no reasonable reason for continuing the use of a hen as a hatcher and every reason why you should have a Chatham Incubator and Brooder.

We are making a very special offer, which it will pay you to investigate.

Small Premises Sufficient For Poultry Raising.

Of course, if you have lots of room, so much the better, but many a man and woman are carrying on a successful and profitable poultry business in a small city or town lot. Anyone with a fair sized stable or shed and a small yard can raise poultry profitably.

But to make money quickly, you must get away from the old idea of trying to do business with setting hens as hatchers. You must get a Chatham Incubator and Brooder.

To enable everybody to get a fair start in the right way in the poultry business, we make a very special offer which it is worth your while to investigate.

We can supply you quickly from our distributing warehouses at Calgary, Brandon, Regina, Halifax, Chatham. Factories at CHATHAM, ONT., and DETROIT, MICH.

The MANSON CAMPBELL CO., Limited, Dept. No. 1, CHATHAM, CANADA

Let us quote you prices on a good Fanning Mill or good Farm Scale.

The Chatham Incubator and Brooder has created a New Era in Poultry Raising.

The setting Hen as a Hatcher has been proven a Commercial Failure.

The Chatham Incubator and Brooder has always proved a Money Maker.

A Light, Pleasant and Profitable Business for Women

Many women are to-day making an independent living and putting by money every month raising poultry with a Chatham Incubator.

Any woman with a little leisure time at her disposal can, without any previous experience or without a cent of cash, begin the poultry business and make money right from the start.

Perhaps you have a friend who is doing so. If not, we can give you the names of many who started with much misgiving only to be surprised by the ease and rapidity with which the profits came to them.

Of course, success depends on getting a right start. You must begin right. You can never make any considerable money as a poultry raiser with hens as hatchers. You must have a good incubator and brooder, but this means in the ordinary way an investment which, perhaps you are not prepared to make just now, and this is just where our special offer comes in.

If you are in earnest, we will set you up in the poultry business without a cent of cash down. If we were not sure that the Chatham Incubator and Brooder is the best, and that with it and a reasonable amount of effort on your part you are sure to make money, we would not make the special offer below.



No. 1—50 Eggs No. 2—75 Eggs No. 3—100 Eggs

THE CHATHAM INCUBATOR—Its success has encouraged many to make more money than they ever thought possible out of chicks.

Every Farmer Should Raise Poultry

Almost every farmer "keeps hens," but while he knows that there is a certain amount of profit in the business, even when letting it take care of itself, few farmers are aware of how much they are losing every year by not getting into the poultry business in such a way as to make real money out of it.

The setting hen as a hatcher will never be a commercial success. Her business is to lay eggs and she should be kept at it. The only way to raise chicks for profit is to begin right, by installing a Chatham Incubator and Brooder. With such a machine you can begin hatching on a large scale at any time.

You can only get one crop off your fields in a year, but with a Chatham Incubator and Brooder and ordinary attention, you can raise chickens from early Spring until Winter and have a crop every month. Think of it!

Quite a few farmers have discovered that there is money in the poultry business and have found this branch of farming so profitable that they have installed several Chatham Incubators and Brooders after trying the first.

Perhaps you think that it requires a great deal of time or a great deal of technical knowledge to raise chickens with a Chatham Incubator and Brooder. If so, you are greatly mistaken. Your wife or daughter can attend to the machine and look after the chickens without interfering with their regular household duties.

The market is always good and prices are never low. The demand is always in excess of the supply and at certain times of the year you can practically get any price you care to ask for good broilers. With a Chatham Incubator and Brooder you can start hatching at the right time to bring the chickens to marketable prices when the supply is very low and the prices accordingly high. This you could never do with hens as hatchers.

We know that there is money in the poultry business for every farmer who will go about it right. All you have to do is to get a Chatham Incubator and Brooder and start it. But perhaps you are not prepared just now to spend the money. This is why we make the special offer.

IS THIS FAIR?

We know there is money in raising chickens. We know the Chatham Incubator and Brooder has no equal.

We know that with any reasonable effort on your part, you cannot but make money out of the Chatham Incubator and Brooder.

We know that we made a similar offer last year and that in every case the payments were met cheerfully and promptly, and that in many cases money was accompanied by letters expressing satisfaction.

Therefore, we have no hesitation in making this proposition to every honest, earnest man or woman who may wish to add to their yearly profits with a small expenditure of time and money.

This really means that we will set you up in the poultry business so that you can make money right from the start, without asking for a single cent from you until after 1906 harvest.

If we know of a fairer offer, we would make it. Write us a post card with your name and address, and we will send you full particulars, as well as our beautifully illustrated book, "How to make money out of chicks." Write to-day to Chatham.

Winnipeg, New Westminster, B.C., Montreal, 613

WE WILL SHIP NOW TO YOUR STATION FREIGHT PREPAID

A CHATHAM INCUBATOR and BROODER

You Pay us no Cash Till After 1906 Harvest

"Gentlemen,—Your No. 1 Incubator is all right. I am perfectly satisfied with it. Will get a larger one from you next year. H. M. LOCKWOOD, Lindsay, Ont."

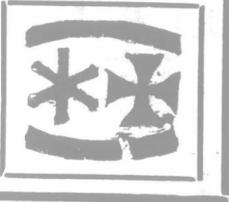
"Gentlemen,—I think both Incubator and Brooder is all right. I got 75 per cent out of three hatches. R. S. FLEMING, Plattsville, Ont."

Gentlemen,—I had never seen an incubator until I received yours. I was pleased and surprised to get over 80 per cent, and the chickens are all strong and healthy. A child could operate machine successfully. JAS. DAY, Rathwell, Man."

Joseph Rodgers & Sons Limited, SHEFFIELD, ENGLAND.

Please see that this EXACT MARK is on each blade.

James Hutton & Co., Montreal, SOLE AGENTS IN CANADA.



ADVERTISE IN THE ADVOCATE.

CLEARING THE LAND.—Every farmer who clears his land is simply avoiding waste and saving money. Every stump left standing is using valuable space, which should be raising money-producing crops. An up-to-date and easy way to get rid of the stumps is by the use of Swensen's Malleable Stump-puller. This splendid machine is made in different sizes by the Canadian Swensen's, Limited, Kent St., Lindsay, Ont., who will supply you with their excellent catalogue if you ask for it. All farmers with stumps on their land should learn about this stump machine.

DISPERSION SALE**IMPORTED HORSES,
REGISTERED HOLSTEIN CATTLE
and YORKSHIRE PIGS.**

JOSEPH FLETCHER, of Kemptville Junction Sta. (C.P.R.), Oxford Mills P.O., Ont., will offer for sale by public auction on

TUESDAY, MARCH 6th, 1906,

His entire herd of 50 head of registered Holstein cattle, imported Shire and Coach horses, work horses, colts and pigs. Also his dairy utensils and 300-acre farm. Reserve bid on farm. **Terms of sale:** On imported horses half cash remainder same as cattle; six months' credit on approved joint notes at 4%, or 5% per annum off for cash. **Sale commences at 12 o'clock.**

THOS. IRVING, Auctioneer.

JOSEPH FLETCHER, Prop., Oxford Mills, Ont.

**25 Pure-bred Shorthorns
and Clydesdale Horses**

BY AUCTION, ON WEDNESDAY, FEB. 21.

The property of FRANK I. BOLTON, Lot 15, Con. 2, Pilkington, on the W. C. & E. Branch of G. T. R., 7 miles north of Guelph. Trains will stop at the farm on that day. The year-olds and two-year-olds are bred by Mayflower Lad 40523, Vol. 19, Dominion Shorthorn Herdbook; bred by W. D. Platt, Hamilton, Ont. The calves are bred by Scottish Marquis 53228. The cows and heifers are supposed to be in calf to Scottish Marquis, Vol. 21, bred by Geo. Amos & Son, Moffat, Ont. Red bull, 10 months old, bred by Mayflower Lad 40523, Vol. 19.

Terms: 12 months' credit on approved joint notes.

THOS. INGRAM, Auctioneer.

DISPERSION SALE BY AUCTION

ON
WEDNESDAY, FEBRUARY 28th, 1906

At his farm, Lot 11, Con. 3, Township of Gramsbe, 5 miles north-west of Brighton Sta., on the G. T. R., MR. GEO. HERRINGTON, Edville, Ont., will sell by auction, positively without reserve, his entire herd of over 30 head of Lavinia-bred

SHORTHORN CATTLE

together with all his horses, implements, etc., including the stock bull British Prince =58067-. Conveyances will meet morning trains at Brighton and Colborne Stns. on day of sale

Terms: 8 months' credit on approved paper at 5 per cent. per annum.

J. HICKS,
F. W. SILVERSIDES, Auctioneers.

**Clydesdales
and Hackneys**

DALGETY BROS., Dundee, Scotland, and London, Ont., have on hand just now at their stables, London, Ont., a choice selection of above, including several prizewinners in this country and Scotland. All combining size and quality. Come and see them.

JAMES DALGETY, Glencoe, Ont.

HODGKINSON & TISDALE

Breeders of High-Class Clydesdales and Hackneys

BEAVERTON, ONT.

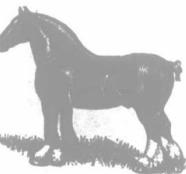
Our present stock of mares and fillies are the best lot we ever had together. Among them are championship, first, second and third prizewinners at Toronto. Our prices are consistent with quality. We have something that will suit you.

BEAVERTON P. O. & STATION. Long Distance Telephone.

**Clydesdales and French Coachers, Imp.**

Scottish and Canadian winners at the leading shows of both countries. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Acute. 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.

ROBT. NESS & SON, Howick, Quebec.
Long-distance Telephone.

**Clydesdales & Hackneys**

Our new importation of Clydes (stallions and fillies) combine size and quality to a marked degree. Their breeding is unsurpassed. Their individuality cannot be duplicated on the continent. Come and see them. We sell cheaper than any other importer. Also, we have a few gilt-edged Hackneys on hand.

G. & J. HAY, - - - Lachute, Que.
A few miles from Ottawa.

NOTICE. When writing advertisers please mention the Farmer's Advocate.

GOSSIP.

A two-year-old Shorthorn bull and several younger ones, also females of various ages, bred from a good milking strain, are advertised for sale in this issue of "The Farmer's Advocate" by Mr. Geo. Lewis, of Ballymote, Middlesex Co., Ont., near the city of London. Look up the advertisement, and write for prices, which are moderate, quality considered.

The fifth annual report of the Canadian Pony Society—Secretary, H. Gerald Wade, Ottawa—has come to hand in neat booklet form. In it we note that the past year has been a most successful one for the members of the society, the membership having greatly increased. There has been a marked increase in the demand for ponies, and it is hoped 1906 will show still greater improvement.

Optimism is usually counted a good quality, but it makes a bad combination with laziness. Some years ago an extremely shiftless farmer was overtaken by the last week of January with about a ten-days' supply of fodder in his barn, and no money to buy more. A neighbor, condoling with him, asked how he thought he would make out. "Oh," he replied, resignedly, "January's pretty near over, February only has twenty-eight days, and in March there's always a little nippin'."

Mr. Geo. M. Smith, Haysville, Waterloo Co., Ont., writes as follows: "Since last writing, we have sold all our young Yorkshire boars ready for service, except one, which is a promising fellow, sired by Summer Hill Dalmeny Topsman 2nd (imp.), dam Dalmeny Lassie (imp.). Despite the strong demand, and many orders filled, we can still offer a number of choice young sows, bred, due to farrow in March and April, also a number of younger stock of the improved bacon type so much sought after by the pork-packing establishments."

N. Dymont, Clappison's Corners, Ont., writes: "Our stock is doing well; the cows are milking well, considering the length of time they have been in lactation, as we only have four that have calved since the first of September. Any of these would make a good record. The demand for Ayrshires never was better, inquiries coming from every direction. I have a few good young bulls, sired by Dairyman; have one from Barton Princess, the cow, cut of which was printed in 'The Farmer's Advocate,' Dec. 14th, 1905; also one from Nellie Gray, Helen of Warkworth, Maggie Brown and one from Briery Banks Susie, our old test cow, and a first-class breeder; also some younger ones. I also have a number of good females to sell, at reasonable prices to quick buyers."

PINE GROVE SHORTHORNS.

It was the pleasure of "The Farmer's Advocate" field man a few days ago to have a look over the noted Pine Grove herd of high-class Shorthorns, the property of Senator Edwards, at Rockland, near Ottawa, acknowledged to be second to none in the world in breeding and character, numbering at the present time about 140 head, representing all the tribes or families that have made Scotch Shorthorns world famous. We found them comfortably quartered in their commodious box stalls, in prime condition, and were pleased to meet our old friend, Mr. James Smith, late of Millgrove, Ont., who has recently taken charge of the herd and farm, under whose skillful hand we may expect still greater things from the grand herd he has to work on. The noted old stock bull, Imp. Marquis of Zenda, a Marr-bred Missie, although now weighing about 2,700 lbs., is still active and sure, and carries his earlier bloom to a wonderful degree. The 20 or more heifers, mostly daughters of his, are certainly a grand lot, carrying a wealth of flesh evenly put on to make the ideal form, and covered with mossy coats of hair. There is at present only one young bull left, besides the stock sires, of which there are several. He is a red yearling, by the old bull, and out of a Cruickshank Clipper cow. He is a good one, and, no doubt, will soon be picked up. This grand herd is a distinct credit to the public spirit and enterprise of its owner, and is one of which Canadians may well be proud.

THE DAIN HAY LOADER

The machine that does the good work.

Loads out of the swath or winrow.

No weight to lift in attaching to the wagon.

Pushes the hay forward on the wagon.

The one-man machine.

Send for circular.

THE DAIN MFG. CO.,
Preston, Ontario.

SUFFOLK DRAUGHT HORSES

The Acme of Quality and strength.



From our stud of over 50 head we offer some fine specimens, both imported and home-bred, for sale at reasonable prices. Among others, the 3-year-old imported stallion, Warden 3116, by Bentley Warrior 2838.

Write for particulars to

MOSSOM BOYD COMPANY
Bobcaygeon, Ont.

Shire Horses

We breed the very best and soundest, which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes. Canadian buyers visiting England are invited to call and see what we have.

No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited.

Station: Althorp Park, L. & N.-W. Ry.

JOHN CHAMBERS & SONS,
Holdenby, Northampton, England

FOR SALE

The unbeaten champion of America over all draught breeds, Young McQueen 8033, 2290. The property of the Wellesley Clydesdale Horse Breeders' Association, of Wellesley. Will be sold by tenders, which will be received up to

TUESDAY, MARCH 13th, 1906

Address all correspondence to

JOHN GREENWOOD, V. S., President, Wellesley, Ont.
or E. E. RATZ, Sec.-Treas., Wellesley, Ont.

**CLYDESDALES**

Imp. Stallions and Fillies.

The get of such notables as Baron's Pride, Prince Alexander, Moneriffe Marquis, The Dean, Montrave Mac and Battle Axe; they combine size and quality, their breeding is unsurpassed, and I will sell them cheap.

GEO. G. STEWART, Howick, Que.
Long-distance Phone.



ROCK SALT for horses and cattle, in ton and car lots. Toronto Salt Works, Toronto

HANDSOME TROTTER STALLION

No work, no training; has trotted quarters in 37 seconds; a prizewinner and a great stock getter; clean and a Standard entire colt, eligible to Review Stakes for 1907 and 1908, for two and three-year olds.

DR. R. C. COATES, Thamesville, Ont.

CLYDESDALES

Imported Clyde stallions for sale. The choicest breeding and good individuals. Prices low for good horses.

ALEX. MCGREGOR, Uxbridge, Ontario.

Holyrood Production 70785, is offered at the small fee of \$5 to a limited number of approved bitches for a short time. Send for stud card, free. R. E. CLARK, West Lorne, Ont.

Oaklawn's Guarantee



Is the safest for the purchaser given anywhere. Under our system of feeding and caretaking, which is the same for our sale horses as those reserved for our own use in the stud, a stallion that proves unsure is a rarity indeed. Should a man get such a one, however, he is amply protected by this warranty, as the following letter (which was entirely unsolicited) shows:

Dec. 9th, 1905.

Messrs. Dunham & Fletcher, Wayne, Ill.

Gentlemen,—I write to inform you that the Percheron stallion, Lafayette, which you gave us in exchange for Drake, in June, 1904, has proved very satisfactory and is very sure, and has got some fine colts. We are pleased with your fairness in making the exchange, and appreciate it. Very truly yours,

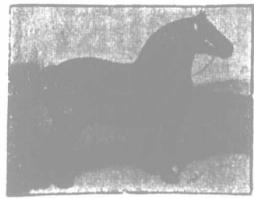
F. A. SALISBURY, Pres. Phelps Percheron Horse Assn.
(Facsimile on application.)

PERCHERONS, BELGIANS & FRENCH COACHERS

Of the finest. Drafters selected for size, bone and finish; Coachers for style, quality and action. You will be safe if you buy here, and at the same time find the most reasonable prices and liberal terms. Read our ad. next week.

DUNHAM & FLETCHER, Wayne, DuPage Co., Ill.

GREAT PERCHERON SALE



Dispersion Sale of Maple Leaf Percherons by Auction
WEDNESDAY, FEB. 28th,

at 1 o'clock sharp, rain or shine. Sale to be held in heated tent at the farm. Rigs will meet all trains. Free lunch. On account of ill health, we are offering our entire stud of pure bloods and grades, numbering nearly 50 head, of which over 20 are registered. The offerings in this sale are very choice, a large number of them are prizewinners. This is your opportunity to secure some good foundation stock. Write for catalogue containing full particulars.

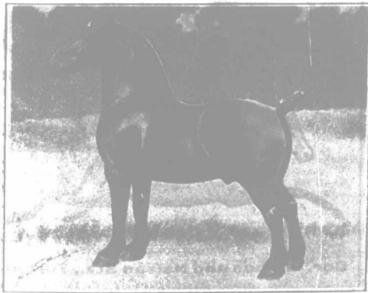
WM. PROSSER, Auctioneer.

I. A. & E. J. WIGLE, Props. Kingsville, Essex Co., Ont.

125 Percheron, Shire and Hackney Stallions and Mares.

At the World's Fair at St. Louis I won MORE premier championship awards than any other exhibitor of live stock. I won every premier championship offered on Hackneys, also every gold medal but one. At Chicago International, 1904, on 20 head I won 34 prizes, and in 1905, on 19 head, I won 34 prizes, of which 19 were firsts, including 3 gold medals and 3 championships. I have the GOODS, and will save you \$500 to \$1,000 on a stallion. Come and see. Your own time of payment and guarantee of 60%.

OFFICE: **LEW W. COCHRAN, 607**
109 1/2 South Washington Street. CRAWFORDVILLE, INDIANA. West Main Street.
On Monon, Big Four and Vandalia Railroads, and Interurban from Indianapolis.



LaFayette Stock Farm

J. Crouch & Son, Proprietors.
Largest importers in America of Oldenburg German Coach, Percheron and Belgian stallions. Have imported over 400 in the last eighteen months. Won more prizes in 1904 and 1905 than all others combined. Our prices are right, and guarantee gilt-edged, and terms to suit buyers. Our Belgians and Percherons weigh from 1,900 to 2,350 pounds. All from three to five years old. The German Coach horses are the leading coach horses of the world.

J. Crouch & Son, LaFayette, Ind.
Sedalia, Mo. Nashville, Tenn.
San Jose, Cal. Portland, Ore.
Write us at London, Ont., or LaFayette, Ind.



INNIS & PROUSE

New importation of CLYDESDALE STALLIONS represent such noted blood as: Baron's Pride, Hiawatha, Sir Everard, Up-to-time, Pride of Blacon, The Dean, Prince Fauntleroy and Lord Stewart. They were selected with great care; combine size and quality. They are an A1 lot. 21 head to choose from.

INNIS & PROUSE, Woodstock and Ingersoll.



J. B. HOGATE'S Shires, Clydes, Percherons, Hackneys and Spanish Jacks.

My latest importation includes 45 head of Shire stallions and fillies, Clyde stallions and fillies, Hackney and Percheron stallions and Spanish Jacks, many of them prizewinners in England, Scotland and France. This is a gilt-edged lot and the best we ever imported, combining size and quality.

Stables at WESTON, ONT. Telephone connection. J. B. HOGATE, Proprietor. OM

When Writing Advertisers Please Mention Farmer's Advocate

QUESTIONS AND ANSWERS. Veterinary.

FATALITY IN FILLY.

Three-year-old filly went off her feed. I gave her a quart of oil on Saturday. She did not show any pain, but breathed very heavily; ate nothing, and died on Tuesday. I opened her, and everything was all right, except the stomach, which contained many bots. Did the bots kill her?

J. B.

Ans.—The bots did not kill her. Bots do not kill horses, except when they get into the stomach in large numbers and form into a ball, which obstructs the intestinal canal. From the symptoms given, I am of the opinion that some of the oil you drenched her with passed down the windpipe, and set up mechanical bronchitis, which caused death, and for which little can be done. Carelessness in drenching is very liable to result this way. If a large quantity passes down to the lungs, death takes place from suffocation in a few minutes. If only a small quantity, there will be more or less disturbance, and unless the quantity be quite small it will prove fatal. V.

SCOURS IN CALVES.

Give simple remedy for scours in calves. They are fed separated milk in the morning and whole milk at night, and what clover hay they will eat, which isn't much.

J. F. W.

Ans.—Care should be taken in feeding calves to keep pails clean, have milk at proper temperature, and especially not to feed too much milk at a time. If these precautions are observed, there is seldom any trouble with scours. The following prescription is strongly recommended by a noted English breeder and farmer as a cure for scours in calves and also in foals and lambs: Powdered chalk, 2 ounces; powdered catechu, 1 ounce; ginger, 1/2 ounce; opium, 2 drams; peppermint water, 1 pint. Give one tablespoonful night and morning. It is best to give a dose of castor oil first, and after the oil has passed, then the cordial, which may be given for several days, if the scouring continues.

MISCELLANEOUS.

1. I have a two-year-old filly that I drive two or three times each month. The remainder of the time she stands in the stall. There is a swelling on the outside of one hock. I have bathed it, and used a liniment, but it is little better. Should I call a veterinarian?

2. Horse is lame in right hind leg. I cannot see any swelling or enlargement. He starts off lame, but soon gets all right until after he stands a while again.

3. A mare 22 years old has not bred for 15 years. She is in foal now. Will there be any particular danger in parturition, and if so, can there be anything done to assist her or avert the danger?

Ans.—1. This treatment tends to cause trouble in any horse. See that she gets daily exercise, either in harness or in the lot or yard. If the swelling does not disappear, it would be wise to call your veterinarian. If you do not get professional attendance, blister the part. Details for blistering appear in this number in answer to W. H.

2. This horse has an occult spavin. Get your veterinarian to fire and blister him.

3. There is always greater danger in old mares that have not bred for a long time, than in other cases. All that can be done is to see that she gets regular exercise, and is kept in fair condition. Keep her in a roomy box stall in stable, and watch closely, and if she has difficulty in parturition, send at once for your veterinarian. V.

Settlers' Low Rates West.

The Chicago and North Western Ry. will sell low, one-way, second-class settlers' tickets, daily from Feb. 15th to April 7th, 1906, to points in Colorado, Utah, Montana, Nevada, Idaho, Oregon, Washington, California and British Columbia. Rate from Toronto to Vancouver, Victoria, New Westminster, B. C., Seattle, Wash., or Portland, Ore., \$42.25; to San Francisco or Los Angeles, Cal., \$44.00. Correspondingly low rates from all points in Canada. Choice of routes. Best of service. For full particulars and folders call on, or write, B. H. Bennett, General Agent, 2 East King St., Toronto, Ont.

Horse Owners! Use



GOUBAULT'S **Caustic Balsam**
A Safe, Speedy, and Positive Cure
The safest, best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Hemorrhoids from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Responsible to producer or Retailer. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto, Ont.

Dr. Page's English Spavin Cure.

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements.



This preparation (unlike other) 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 in any address upon receipt of price, \$1.00. Canadian agents: J. A. JOHNSTON & CO., Druggists, 171 King St. E., Toronto, Ont.

ABSORBINE

REMOVES BURSAL ENLARGEMENTS, THICKENED TISSUES, INFLAMED PARTS, and any PUFF OR SWELLING, QUERS LAMENESS, ALLAYS PAIN without laying the horse up. Does not blister, stain or remove the hair. Each bottle, delivered. Sample 1/2 free. ABSORBINE, JR., for making liniments. Cures synovitis, Weeping Sinus, Strains, Gout, or Rheumatic Deposits. Always Pain-Proof. Manufactured only by W. F. Young, P. O. Box 75, Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

NEW IMPORTATION

I have landed one of the best importations of CLYDESDALES, SHIRES and HACKNEY STALLIONS.

males and fillies ever landed in America. They are got by such sires as Baron's Pride, Everlasting, Up-to-time, Marcellus, Pride of Blacon and others. Scotland's greatest sires. Mares and fillies all bred in Scotland to the best. Have size and quantity, and I am offering these at just one-half less than other importers are asking for theirs. For full particulars write DUGALD ROSS, Streetville, Ontario.

Shire, Percheron, Clyde, Belgian, Standard-bred and Coach Horses, also SPANISH-BRED JACKS, for Sale.



W. R. GRAHAM, Box 22, Kincairdine, Ont.

My motto: "The Best is None too Good." Imported and home-bred Clydesdale and Shire Horses, Scotch Shorthorn Cattle, Leicester Sheep. A choice lot of reg. fillies and Shorthorn calves to choose from. Our stock exhibited have won the highest honors at the largest shows in America. WESTON P.O., C.P.R. and G.T.R. 10 miles west Toronto. Telephone at house and farm. J. M. GARDHOUSE.

J. A. LATTIMER, Box 16, Woodstock, Ont.

BREEDER OF Clydesdales and Shorthorns

Has now to offer some good young bulls, sired by Imp. Boston Chaucer. Speak quick if in need of such, as they will soon go at the price asked.

Trumans' Champion Stud

Bushnell, Illinois.

SHIRE, PERCHERON, BELGIAN AND HACKNEY STALLIONS

Read our record at the great International Show recently held in Chicago. We won the following prizes on Shire and Hackney stallions:

4-year-olds	-	-	1st, 3rd and 4th
3-year-olds	-	-	1st, 2nd, 3rd and 5th
2-year-olds	-	-	1st and 4th

Also Champion and Reserve Champion Hackney Stallions

Our stallions were admired by all who saw them. Before buying a stallion of either breed, we respectfully ask that you write and let us know your wants. We can save you money. Our prices and liberal guarantee will astonish you. Our record in the show-rings is evidence that we keep nothing but the best. Our barns are full of prizewinners, and they are all for sale. We insure stallions against death from any cause, if desired.

Write for illustrated catalogue of our horses. Importations arrived, July, September and November.

TRUMANS' PIONEER STUD FARM
H. W. TRUMAN, Manager, LONDON, ONT.



25 Percherons, also French Coaches, Hackney and Clyde Stallions

Have just arrived, Aug. 16, 1905, from Great Britain and France with our new importation of high-class stallions, many of them prizewinners in their native lands, bred by the best breeders. The Percherons are large blocky fellows, 3 to 5 years old, descendants of such noted champions as Brilliant, Besique and Romulus. Blacks and dark dapple greys, weighing from 1,600 to 2,100 lbs., with the right kind of legs and feet, and can go like trotters. We personally selected every horse ourselves, using extraordinary caution to select nothing but good sound serviceable horses that will do our customers and the country good. The French Coaches, Hackneys and Clydes are also of the best breeding, some of them prizewinners in England, Ireland and Paris. We will sell you a better stallion for less money than any other importers in America, with a guarantee as good as gold. Intending purchasers should visit our stables before buying elsewhere. Inspect our stock and get our prices. Terms made to suit purchasers.

Hamilton & Hawthorne, Simcoe, Ont. 83 miles S.W. of Toronto, on G.T.R. & Wabash

WHEN BUYING HACKNEY AND SHIRE STALLIONS BUY DIRECT



From a well-known breeder and save the middleman's commission. A select lot of newly-imported prize-winning Hackney and Shire stallions and pedigree colts from a Clement Keevil's world-renowned Shire Horse Stud, stillington, Beds, Eng., will be found at Cramp on, Ont. These horses are of the best blood that has reached this country, being sired by such noted champions as Prince William, Ince-shire Lad, Harold Market, Royal Harold, Premier, Buscot Harold, Royal Albert, etc. Horses from this stud have won champ and premier prizes at the principal shows of England, America and Germany. Now is the time to pay us a visit and select your sires for the coming season. Our stallions are sound, and are sure stock-getters. Shires from 1,800 to 2,000 lbs. in weight. Come and see them.

R. KEEVIL, Crampton, Ontario. Two miles from Putnam, C. P. R.

IMPORTANT CLYDESDALE SALE

At THORNCLIFFE STOCK FARM, TADMORDEN, near Toronto,

WEDNESDAY, FEB. 28th, 1906, at 1 p.m.

Fifty Clydesdales, home-bred and imported, champions and grand champions, yearlings, two-year-olds, stallions and brood mares. Best on the continent. Also some heavy weight saddle horses and extra carriage horses, and improved Yorkshire sows.

Catalogues on application to 36 Toronto Street, Toronto, Ont., or at the farm.

Conveyances to farm from Broadview Ave., leaving every 15 minutes, from 10 a.m. to 1 p.m.

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Best of stock always on hand for sale. New importation of Royal winners just arrived.

QUESTIONS AND ANSWERS. Veterinary.

LAME FILLY.

Two-year-old filly stumbled on her knees a month ago. She has been lame ever since when she trots, but nothing can be noticed when she walks. The trouble appears to be in right shoulder.

W. H.

Ans.—It is not possible to make a safe diagnosis from the symptoms given. The fact that she does not go lame except when trotting indicates splint lameness, but this would not be likely to be caused by stumbling. She might easily sprain a muscle on the point of the shoulder in this way, and as this muscle is mostly tendinous, there would be little swelling, but there would be soreness to pressure and pain shown when the leg is lifted and pulled backwards. Examine for the trouble and also for splint, and if soreness be found, either place blister with 1 dram each cantharides and biniodide of mercury, mixed with 1 ounce vaseline. Clip the hair off; tie so that she cannot bite the part; rub well with blister daily for two days; wash off, and apply sweet oil on the third day. Turn loose in box stall, and oil every day. If not better in a month, blister again.

V.

ABSCESS—ROARS.

1. Mare had lump on breast. I lanced it and matter discharged. The lump has not all disappeared. Would it be wise to blister it? If so, send prescription and directions.

2. Mare draws her breath in very heavy through her nostrils. When working she is badly affected. W. W.

Ans.—It is probable you did not make a large enough opening, and it healed before the cavity became filled, and it still contains pus. If pus be present the abscess must be opened freely and then flushed out twice daily with a five-percent. solution of Zenoleum until healed. If no pus be present a blister will hasten the removal of the lump. A prescription for blister and directions for use appears in mostly every issue of this journal. You will see it in this number in answer to W. H.

2. From symptoms given I am afraid your mare is a roarer, and if so practically nothing can be done. I presume she makes a noise when inhaling air when she is worked or exercised. If this be not so, write again, and give more definite symptoms.

V.

INFECTIOUS ABORTION.

1. Is it advisable to flush out cows with corrosive sublimate or creolin solution when they have passed the sixth month of gestation, as a safeguard against abortion in a suspected herd?

2. Is there danger of unpregnant cows or heifers becoming affected?

3. Will young calves carry the disease?

4. How should a bull that had been bred to diseased cows be treated?

5. Could a diseased bull infect cows by merely running with them?

W. A. H.

Ans.—1. Of course the womb should not be flushed, but it is good practice to inject a little of the solution, heated to 100 degrees, into the vagina two or three times weekly until the cows calve.

2. Yes.

3. It is quite possible for calves to convey the virus from diseased to healthy animals.

4. He should not be bred for six months, and twice weekly during that time his sheath should be flushed with the solution used for the cows. I find corrosive sublimate, 1 to 2,000 of water, and heated to 100 degrees Fahr., give the best results. If bred before this length of time the sheath should be flushed both before and after service.

5. It is possible, but highly improbable.

V.

Stock Food and Herbageum.

Herbageum is not a Stock Food. A food is that which supplies nutriment. The manufacturers of Herbageum do not claim to supply any nutriment. It is nonsense to ask the feeder to pay more than the price of flaxseed meal for food in any form.

There is nothing in Herbageum which has a direct action on an animal's system. It contains no drugs and no iron in any form. It can, therefore, be fed regularly every day. It never loses its effect, and if it is withheld at any time there is no reaction. The object of Herbageum is to assist in the digestion of the odorless and unaromatic winter food. If an animal is on real good pasture it does not need Herbageum. Nature is then supplying it with the aroma and flavor necessary to assure perfect digestion of the food.

A young calf can digest new milk, but it can digest separated milk just as well as it can digest new milk, provided there is a quarter of an ounce of Herbageum put in the separated milk for every three calves. This is much cheaper than feeding new milk, and the results are equally as good. Last week we gave in these columns the result of a test on bacon hogs, made by D. C. Flatt & Son, of Millgrove. This week we will give the opinion of a firm of merchants who have had some experience in handling this line.

ALPIN CAMPBELL & SON,

General Merchants, Manufacturers of finest Cheese and Butter, Agents G.N.W. Tel., and Postmaster.

Ormond, Ont., Jan. 25th, 1906.

Messrs. Beaver Mfg. Co., Galt, Ont.:

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(Signed) A. Campbell & Son.

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Ridgewood Danegelt—160—, rising four years, first at Western Fair, London, 1904 and 1905, sire Langton's Danegelt, dam by Barthorpe Performer (imp.).

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Desford Marquis (imp.), first at Western Fair, 1904 and 1905, a proved sire of quick-selling stock at highest prices.

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For sale, at reasonable prices, four yearling bulls, four yearling heifers, and cows in calf and with calves at foot. This stock by our imported bull, Magstrand. This stock, strong-boned, hardy constitution, and have just lately been taken up from pasture field.

Fifty fall-farrowed **Large Yorkshires**, three months, young sows. Your choice, three for \$15.00. Above stock reasonable in price to an early purchaser.

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Every shaft is of steel and the bearings are lathe turned journals. The two large main shafts are fitted with Roller Bearings. The traveller shafts are steel, with lathe turned ends, and run clear through from side to side, thus supporting the Tread floor like a wagon axle.

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Young bulls for sale from 6 to 18 months old, all from imported sire and dams, prizewinning stock at Royal and leading English shows.

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HEREFORD CATTLE FOR SALE.

A number of nice young bulls, from 6 to 24 months old, low-down, beefy fellows. At rock-bottom prices.

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Twelve high-class bull calves and 4 yearling and 2-year-old bull, we will place at a price that will move them quick. Some choice cows and heifers are yet left for sale. Address: **A. F. O'NEIL,** Maple Grove P.O., or **M. H. O'NEIL,** Southgate P.O., Guelph, Ont.

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Four bulls from 8 to 12 months old; prizewinners and from prizewinning stock. Several heifers born on the same lines; choice individuals for sale. **JOHN A. GOVENLOCK,** Forest Sta. and P.O.

HEREFORDS—We are now offering a few thick; smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you. **J. A. LOVERING, Coldwater P.O. and Sta.**

Aberdeen-Angus cattle and **Chester White Hogs.** Principal prizewinners at Ottawa and Sherbrooke. Breeding stock and young things for sale. Write for prices. **A. G. SPAFFORD, Compton, Que.**

THE GLENGORE HERD OF ABERDEEN ANGUS

Has for sale 3 of the choicest bull calves ever offered by any breeder. They won everything at the fall shows—never been beaten—and their quality has been pronounced by judges as unsurpassed; also females all ages. All by imported Black Bird sire. Would be pleased to hear from persons requiring such stock. Prices and terms to suit purchasers. All stock American registered. **GEO. DAVIS, Alton, Ont.**

We are offering **Aberdeen-Angus** show stock. One offering **Aberdeen-Angus** yearling bull, two bull calves and one yearling heifer that won first last year at Toronto, London and Guelph; also Fat-stock Show. **JAS. BOWMAN, Guelph, Ont.**

TWEEDHILL ABERDEEN-ANGUS Some good bulls for sale from ten to twenty-one months. **JAMES SHARP, ROCKSIDE, ONTARIO** Cheltenham stations, G. T. R. and C. P. R.

We are offering **Durham Bulls**, roan and red, three yearling **Royal Sailor** bulls (sired by imported and Royal Sailor bulls) cheap for quick sale. A limited number of **Shropshire** ewes, bred to our Chicago winner, **Prolific** (imp.). **W. R. BOWMAN, Mt. Forest, Ont.**

ROWAN HILL SHORTHORNS

Herd bull for sale: **Greengill Archer**, imp., 45184, as some of his heifers are of breeding age, and herd is not large enough to keep more than one bull; also a few young bulls and heifers.

A. DUNCAN & SONS, Carluke, Ont.

SCOTCH-BRED SHORTHORNS.

Five bulls from 10 to 18 months old; also heifers and several cows in calf bred to "Good Morning" imp. Prices very reasonable. **L. K. WEBER, Hawkesville P.O., St. Jacob's Station, G.T.R., Co. Waterloo.**

Young Shorthorn Bulls for Sale—One 2 years old and several under one year. Also a number of females. Good milking strain. Prices right. **GEORGE LEWIS, Ballymote, Ontario.**

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Herd headed by the **Missie** bull, Aberdeen Beau, by Imp. **Scottish Beau**. Present offering: Two choice young bulls, one full brother to first-prize and highest-priced calf at Ottawa sale of 1905. **R. E. WHITE, BALDERSON, ONTARIO,** Lanark Co.

GOSSIP.

Mr. H. W. Truman, of Trumans' Pioneer Stud Farm, manager of the London, Ont., branch, writes: "I am in receipt of a cablegram from our Mr. J. H. Truman, that he has shipped us another large consignment of first-class stallions, which makes the sixth this season. They are due to arrive in New York, Feb. 4th. I am pleased to state that trade was never better than it is to-day during the 28 years that we have been importing. We have sold more stallions this year than in any preceding year. Our Canadian trade is great, selling two or three every week, and sometimes more. To-day I sold the magnificent three-year-old Belgian stallion, Marnix (33326), to Mr. W. J. Lever, of Flesherston, Ont. This colt is without a doubt one of the best Belgian stallions that was ever shipped from the Old Country, and he is certain to do his owner and the farmers in that part of the country a lot of good. Although it is but about three weeks since I received a new consignment of horses, I find that I must 'tap the wire' again for more."

INGLESIDE HEREFORDS.

The Ingleside herd of Herefords, the property of Mr. H. D. Smith, of Compton, Que., is too well known throughout the length and breadth of this continent to need introduction in these columns, for many years winning the lion's share of prizes at the leading Canadian shows, and representing the blood of England's most noted sires, such as **Rupert, Corrector, Anxiety, Grove 3rd, Horace, Assurance, Eureka, Horatius, etc.**, the bulk of the breeding cows being imported from the leading herds of England, and nearly all the rest the get of imported sires and dams. The herd at present numbers some 76 head, at the head of which is the massive, richly-bred prizewinning bull, **Bourton of Ingleside**, a son of the mighty **Mark Hanna**, a grandson of the renowned **Eureka**, and out of **Imp. Lady Bountiful**, by **Bourton**, Lord Wilton. He is now four years old, has been shown ever since he was a calf, and never took second place. This great bull, and **Prince Ingleside 2nd**, a son of **Sir Horace**, by the noted bull **Corrector**, are the sires of about 20 heifers from one to two years of age, and nine bulls from six months to two years of age that are for sale; a typical lot, and under the master hand of **Mr. Norton**, the herdsman, are in fine condition.

WM. SMITH'S SHORTHORNS.

Few men are better known among purebred stockmen in Canada than **Mr. Wm. Smith**, of **Columbus, Ont.**, as an importer and breeder, and a first-class judge of **Clydesdale** horses and **Shorthorn** cattle. For a great many years his herd of **Wedding Gift, Strathallan, Crimson Flower** and **Kilblean Beauty** Shorthorns have held a high place among the leading herds of Canada. At present the herd represents the get of such noted sires as **Duke of Lavender** (imp.), **Duke of Albany** (imp.), a son of the great **Roan Gauntlet**; **Rosebery** (imp.), a son of **Perfection**; **Bright Light**, a son of **Imp. Northern Light**; **Royal Bruce**, a son of **Imp. Royal Member**, and the present stock bull, **Imp. Ben Lomand**, bred by **F. Simmers**, sired by **Count St. Clair**, dam **Beauty 13th**, by **Lord Marshal**, grandam by **Gravesend**. He is a bull of great scale, very heavily fleshed, deep quartered, and would make it interesting in the ring with the best of them, and what is better, he is an excellent sire, his get coming thick, straight, smooth and even. Among the younger ones are about a dozen heifers that show up well, a typical lot, which are for sale; also five yearling bulls and about the same number of younger ones. The older ones are: **Meldrum**, by the present stock bull, and out of **Imp. Daviot Beauty**; a **Kilblean Beauty**, by **Craibstone**, dam by **Touchstone**; **Dundee** is by **Brooklin Boy**, dam a **Wedding Gift**; **Strathben** is by the stock bull, dam a **Strathallan**-bred cow; **Kinloss** is also by the stock bull, and out of a **Wedding Gift** bred cow; **Dalmore** is by **Brooklin Boy**, and **Wedding Gift** bred. These are an exceptionally nice lot of young bulls, of a kind not seen every day, and should soon be picked up at the prices asked. Write **Mr. Smith** to **Columbus P. O.**; the farm is also connected by long-distance telephone.

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No return of Rupture or further use for Trusses. No Operation, Pain Danger, nor Time from Daily Work. Cures in every case. Read the following proof:



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Shorthorn bulls, cows and heifers for sale at greatly reduced prices for the next 60 days.

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Herd headed by **Imp. Royal Champion**. Young stock for sale from **Imp. sires** and dams. For particulars write to **Ed. Robinson, Marham Sta. and P. O.,** Farm within town limits.

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We are now offering 20 **Shropshire** ewes, one and two shear, imp. and from imp. stock, a big, strong, well-covered lot; also a few **Shorthorn** heifers. No fancy prices asked, for quick sales.

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HIGH-CLASS SHORTHORNS.

The great **Duthie**-bred bull, **Scottish Beau**, imp. (96090), formerly at head of **R. A. & J. A. Watt's** herd, now heads my herd.

Present offerings: two bulls seven months old, and females of different ages. Also for sale, **Clydesdale** mare and foal.

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Herds headed by **Imp. Royal Prince** and **Imp. Abbotsford Star**. For sale: Nine bulls, six months to one year, three from **Imp. dams** and **Imp. sires**; also females. **Oxford Down** sheep and **Barred Rock** cockerels. **John McFarlane & W. M. Ford, Dutton, Ont., Elgin County.**

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Scotch and
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Present offering: Two choice nine-month-old bulls, by Captain Mayfly and; also young cows and heifers at very reasonable prices. For particulars write to

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One pair registered Clyde mares, 3 and 5 years old; one pair Clyde geldings, 4 and 5 years old (show team.) Shorthorn heifers, cows and bulls.

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Two red bull calves; 6 heifers, sired by that grand bull sire of unbeaten Fair Queen and sister, Queen Ideal. First prize senior heifer calf at the International, 1904. Also first prize and junior champion, and reserve grand champion at Winnipeg, 1905.

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A few females of different ages, and one red Golden Drop bull, 12 months old. Prices reasonable.

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A few good bull calves for sale at reasonable prices; all from a milking strain.

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Eight superior young bulls, all from imp. bulls, four from imp. cows. Good enough for herd headers. Apply

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RIVER VIEW STOCK FARM is offering young stock for sale from Marr Stamford, Scottish Maid and Rosemary dams, and sired by Scott's Choice—43970—

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4 extra choice young bulls ready for service 4

Also bull calves, all from imp. sires. Leicester ewes and lambs of both sexes for sale. Address

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Shorthorn Bulls

I have for sale two good young roan SHORTHORN bulls, fit for service, sired by imp. Scottish Peer—40424—

Come and see, or address,

JAMES SNELL, - Clinton, Ont.

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Young bulls for sale, sired by Spectator, imp. Prices reasonable. Apply to

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4 Choice Young Bulls for Sale. Also some cows and heifers, and prizewinning Berkshire pigs. Terms reasonable.

ISRAEL GROFF, Alma P. O. & Stn., G. T. R.

Shorthorns—Will sell or exchange Kinellar Stamp, my famous Golden Drop show bull. Have for sale also young heifers and bulls got by him. Tracing Imp. Fanny Lily and Beauty

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Plum Grove Stock Farm. Baden Station.

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Present offering: A few Scotch-bred heifers, sired by Scott's Choice—43670—

For particulars write to

JOHN SCOTT, Dumblane P. O.
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Shorthorns for Sale—Some choice young bulls and heifers, got by British Flag, imported from deep-milking cows, registered. Prices moderate.

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A. EDWARD MEYER

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SCOTCH SHORTHORNS

a specialty. Herd bulls—Scottish Hero (imp.), a Shethin Rosemary; Radium, a Cruchshank Mysie. Correspondence solicited. Visitors welcome. Long-distance phone in house.

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Scotch Shorthorn Cattle and Large English Yorkshire Swine.

Herd headed by the Duthie-bred bull (imp.) Joy of Morning, winner of first prize at Dominion Exhibition, Toronto, 1903.

Present offering: young Shorthorns of either sex; also a choice lot of Yorkshires of either sex, six months old, from imp. sire and dam. Prices easy.

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For sale: Seven young

SHORTHORN BULLS

and some choice females. Also 25

Berkshires of different ages, bred from show stock, and of prolific strains.

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Stations—Streetsville and Meadowdale, C. P. R. Brampton, G. T. R.

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SHORTHORNS, CLYDESDALES and COTSWOLDS

Present offerings: Choice young bulls and heifers. Also a few good young cows.

Apply to **JOHN E. DISNEY & SON,**
STATIONS: Greenwood, Ont. Claremont, C.P.R.; Pickering, G.T.R.; Brooklin, G.T.R.

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SHORTHORN CATTLE

Herd of thirty. Stock bull:

Scottish Archer (59993), Missie 134th, by William of Orange.

Prince Horace, bred by W. S. Marr.

Butterfly 46th (Sittytton Buttery).

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Queenston Heights Shorthorns

Choice yearling heifers, Straight Scotch.

Two bull calves at easy prices.

HUDSON USHER, Queenston, Ont.

Scotch Shorthorns

TWO CHOICE YOUNG BULLS, both roans; one by Marquis of Zenda (imp.), the other by my stock bull, Derby (imp.). Prices reasonable to make quick sale.

W. J. SHEAN & CO.,
Rosevale Stock Farm, o Owen Sound, Ont.

11 SHORTHORN BULLS 11

Five imported, six from imported sire and dam. Highest quality, lowest price.

I have also an interesting proposition in some imported cows.

ROBERT MILLER - Stouffville, Ont.

Glen Gow Shorthorns—Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Leman 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 telephone.

WM. SMITH, Columbus, P. O.
Brooklin and Myrtle Stns.

BOWHILL STOCK FARM SHORTHORNS and LEICESTERS

Imported bull, 2 home-bred bulls and a few females.

GEO. B. ARMSTRONG, Teeswater, Ont.
Midway, G.T.R. Teeswater, C.P.R.

GOSSIP.

WM. STEWART & SON'S AYRSHIRES.

Genial Willie Stewart, of Menie, Ont., needs no introduction to readers of "The Farmer's Advocate"; neither does his herd of 40 head of high-class Ayrshires need any words of praise in these columns. For years this well-known herd has been exhibited at the leading Canadian shows, and have always won their share of the coveted honors. To-day, in their comfortable new stables, they are in prime condition, many of them milking very heavily. The stock bull, Rob Roy, by Kitchener, by Imp. Comrade of Garland, dam Edna, with a milk record of 55 lbs. of 4% milk, by Castle Douglas, is in grand fettle; his show record is one almost unbroken record of successes; his granddam has a milk record of 65 lbs. of 4.03% milk per day. Rob Roy is a typical bull of the breed, being so richly bred and of such grand individuality, and, as might be expected, he is a sire of a high order, and his get are in active demand. In young bulls there are several, one of which is a yearling, by the stock bull, and out of a two-year-old heifer that gave 10,800 lbs. of milk in one year. She has lately been sold to J. P. Roberts, of Pennsylvania. Another is a yearling, by the great show bull, Hover-a-Blink, and out of a cow that gave 8,000 lbs. of milk in nine months. Still another is a nine-month-old bull, by Rob Roy, and out of another cow that has given 8,000 lbs. of milk in nine months. Lately Mr. Stewart has purchased as a prospective herd-header, Queen's Messenger of Spring Hill, by Imp. Lessnessock King of Beauty, champion at Toronto, 1905, and out of Imp. Garclaugh Queen of Soncius, also champion at Toronto, 1905. He is a grand calf, and should be a great sire. Mr. Stewart can supply a few females of any age. They are a high-class lot and richly bred, and are producers or bred from producers of a high order.

JAMES A. COCHRANE'S SHORTHORNS

One of the oldest established herds of Shorthorns in Canada is "Hillhurst Herd," the property of Mr. James A. Cochrane, of Hillhurst, Quebec, containing at the present time about 50 head, very many of them being imported, and all bred very close to imported sires and dams. They represent many of the most noted Scotch and English families, and are an exceedingly large, heavy-fleshed lot; and what is of even greater importance, they are mostly heavy milkers. The main stock bull is Broad Scotch, by the Missie bull, Scottish Hero; dam Imp. Butterfly 49th. He is a bull of modern type, short legged, carrying a wealth of flesh very evenly put on, is a very soft, mellow handler, and as a sire he will certainly leave a name behind him. His lieutenant in service is Golden Carol, by Golden Drop Victor (imp.); dam Imp. Caroline 13th. He is a very thick, heavy-fleshed youngster, and should prove an extra good sire. Prominent among the many good cows we noticed Lady Ingram of Hillhurst, a cow of great substance and scale; Ruby of Pine Grove 4th belongs to the noted Brawith Bud tribe. She is another very large, thick cow, and has a four-month-old bull calf, by the bull Missie Champion, a son of Mr. Edwards' \$8,000 cow, Missie 153rd. This young bull is an extra good one, and will make a herd header of a very high order. Lovely of Pine Grove 3rd, by Village Champion, is a two-year-old, a show heifer of the first rank, and is now in calf to the young stock bull, Missie Maid 2nd, by Imp. Marquis of Zenda, is a roan, two years old, safe in calf, and an extra nice thick one; Pine Grove Mildred 9th is another roan, two years old, got by Imp. M. O. Z.; Bessie of Pine Grove 2nd, another two-year-old daughter of M. O. Z., and Ruby of Pine Grove 5th, by the same bull, is still another two-year-old. All these heifers are in calf to the stock bull, besides about a dozen others, daughters of Imp. Joy of Morning and Imp. Scottish Beau, a rare good lot, out of such royally-bred cows as Imp. Frost 52nd, Hillhurst Diamond (imp. in dam), Alpine Beauty 2-d (imp.), Frost's Queen, Famous 5th of Hillhurst, etc. Practically anything in the herd is for sale—breeding cows, heifers, and a few young bulls—their breeding is gilt-edged, and their individuality is unsurpassed.

Fistula and Poll Evil

Do yourself what horse doctors charge big prices for trying to do. Cure Fistula or Poll Evil in 15 to 20 days.

Fleming's
Fistula and Poll Evil Cure

is a wonder—guaranteed to cure any case—money back if it fails. No cutting—no scar. Leaves the horse sound and smooth. Free Book tells all about it—a good book for any horse owner to have. Write for it.

FLEMING BROS., Oshawa, Ont.
45 Front Street, West, Toronto, Can.

GREENGILL HERD
of high-class
SHORTHORNS

We offer for sale 12 bull calves, 2 yearling bulls, a number of them from imported sire and dam; also high-class females, all ages, either imported or Canadian bred. The herd is headed by (Imp.) Lord Roseberry.

R. MITCHELL & SONS,
Nelson P.O., Ont.; Burlington Junc. Sta.

R. A. & J. A. WATT, Elora station

13 miles north of Guelph, on the G.T.R. & C.P.R.

Mildred's Royal, winner at Chicago International, first at New York State Fair, first at Winnipeg Industrial, at head of herd. Can supply cattle to suit any order. We also offer an extra fine Clyde filly, rising three years, and a promising young stallion.

KENWOOD STOCK FARM.

SHORTHORNS.

Headed by (Imp.) Jilt Victor—45187—, 10 grand young bulls; also heifers; from imp. and home-bred cows, for sale. Choice Lincoln sheep; Berkshire and Tamworth hogs offered.

HAINING BROS., Highgate, Ont. Kent Co.

Riverview Shorthorns and Oxfords

Shorthorns represent **Crimson Flowers, Atheistans, Lady James and Roses.**

We have for sale eight bulls, including our stock bull, four yearlings, and the balance calves; also a few one, two and three-year-old heifers. A thick, straight, mossy lot. Also some spring and one-year-old Oxford rams.

Peter Cochran, Alimonto P. O. and Sta.

GLENAVON STOCK FARM

Shorthorns

Have from choice milking strains two registered bulls for sale. Prices right.

W. B. ROBERTS, Sparta P. O.
Station, St. Thomas, C.P.R., M.C.R. and G.T.R. o

Oak Grove Shorthorns—Present offering is:

Several imp. females, several heifers and several young bulls, all sired by Imp. Nonpareil Duke and out of imp. dams; also the stock bull, Imp. Nonpareil Duke, a choice offering. Prices right.

W. J. ISAAC, Cobourg Sta., Harwood P. O.
Co. Northumberland.

SCOTCH-TOPPED SHORTHORNS.

Three young bulls, from nine to thirteen months old; also several young heifers by Scottish Baron (imp.) for sale. Prices reasonable.

H. GOLDING & SONS, Thamesford, Ont.
Stations, Thamesford, C.P.R.; Ingersoll, G.T.R.

SPRING VALLEY SHORTHORNS.

Imp. Bapton Chancellor—40359—(78296) heads the herd. We have for sale a choice lot of young bulls of the very best breeding and prices right. Inspection and correspondence invited.

Address:

KYLE BROS., Ayr, C.P.R., Paris, G.T.R.

For Sale: Shorthorns—Four young bulls, from 10 to 15 months old; also

cows and heifers, all ages. Queenston Archer and sex. Also 1 Clyde filly rising 3 years old, 1 Clyde mare rising 6 years old.

BELL BROS.,
"The Cedars" Stock Farm, Bradford, Ont.

IMPORTED SHORTHORN

Bull for sale King Edward 40388; a show-ring animal, in good condition, active and sure getter. Is perfectly quiet to handle. **W. J. MEADS,** Ceylon, Ont. Flesherton Station, C.P.R. o

SHORTHORNS AND DORSETS.

3 bulls, seven to nine months old; also a few ewe lambs and ewes in lamb for sale. Prices reasonable.

R. H. HARDING,
Mapleview Farm, Thorndale, Ont.

Wm. Grainger & Son, Hawthorn Herd of

deep-milking Short-horns. Aberdeen Hero (imp.) at head of herd. Eight grand young bulls by Prince Misty—37864—, Prices reasonable.

Londesboro Sta. and P. O.

For Sale—Three Shorthorn bulls, two 20 months and one 9 months. Tri-unvir (imp.) heads the herd.

DAVID CLOW,
Whitechurch P.O. and Station

For You

We've just issued a 12-sheet, 22-inch by 15-inch Calendar, good until January, 1907.

It's somewhat different to anything hitherto published or distributed by a Rubber Company in the Dominion.

We've planned it for practical men. It's got big date figures, large enough to read without glasses, and shows banking and other holidays scheduled in the Dominion.

Primarily it's a Rubber production, and a good one.

On every sheet are illustrations of our many and varied products in Rubber.

And the "date" feature is so prominent and practical that you'll keep it to the last sheet—the twelfth month—and feel that you're not doing us a special favor—'cause it's something that YOU want. It's a calendar with "mutual" features.

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All our Sales Branches have large supplies. A postal to our Branch Offices will bring a handsome calendar (or several of them) to your desk.

WRITE TO-DAY.

Simply address—

The CANADIAN RUBBER CO. OF MONTREAL, Ltd.

Front and Yonge Streets, Toronto, Ont.

D. Lorne McGibbon, General Manager.

A Calendar

Maple Shade



Cruickshank Shorthorns and Shropshire Sheep
16 choice young bulls of Cruickshank breeding, from which you can select high-class herd-headers. If you wish to see the breeding we shall be pleased to mail a catalogue.

JOHN DRYDEN & SON, Brooklin, Ont.

Stations: Brooklin, G.T.R. Long-distance telephone. Myrtle, C.P.R.

SHORTHORNS AND LINCOLNS.



Present offerings: 4 choice young bulls 9 to 14 months; also a few good heifers, Lincolns, descended from the best English flocks.

JOHN LEE & SONS, Highgate, Ont.
40 miles west St. Thomas, on M.C.R.R. & P.M. Ry.

CLOVER LEA STOCK FARM

SHORTHORNS

Imp. Golden Cross at head of herd. 6 young bulls, three reds and three roans, from six to twelve months old. Parties wishing to visit the herd will be met at Ripley station and returned.

R. H. REID, Ripley Sta., G.T.R. Pine River, Ont.

CLEAR SPRING SHORTHORNS.

Imp. Spicy Broadhooks at the head of herd. Young bulls from 6 to 11 months old, females of all ages.

Prices reasonable. Call or write
JAMES BROWN, Thorold.

PLEASANT VALLEY

SHORTHORNS

Herd headed by imp. Old Lancaster =50668=, Grand champion, Toronto, 1905, and consisting of females of the leading Scotch families; can spare a few young cows bred to imp. Old Lancaster and two extra good young bulls by him.

GEO. AMOS & SON, Moffat Stn. and P.O., C.P.R. JOHN GARDHOUSE & SONS, Highfield P.O., Ont.

Breeders of Scotch and Scotch-topped Shorthorns, Lincoln and Leicester Sheep and Shire Horses.

A good selection of young stock of both sexes always on hand for sale. Scottish Prince (imp.) Vol. 49, at head of herd. Royal Albert (imp.) 2367, at head of stud. Farms 3 1/2 miles from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

SCOTCH-TOPPED SHORTHORNS

Five choice young bulls, 8 to 12 months; also four heifers. **W. H. WALLACE, Woodland Farm, Mt. Forest, Ont.**

SCOTCH SHORTHORNS

9 heifers, yearlings.
29 heifers, calves.
4 bulls, yearlings.
26 bulls, calves.

All out of imported sires and dams.

Prices easy. Catalogue.

John Clancy, H. CARGILL & SON, Manager. Cargill, Ont.

Maple Lodge Stock Farm.

1854.

An excellent lot of Shorthorn bulls and heifers for sale now. Have choice milking strains. Have a few Leicesters left yet. Bargains in ewes.

A. W. SMITH, Maple Lodge, Ont.

T. DOUGLAS & SONS, Strathroy, Ont.

SHORTHORNS and GLYDESDALES

Present offerings: 19 young bulls, of No. 1 quality, ready for immediate service; also cows and heifers of all ages. Also one imp. stallion and two brood mares. Prices reasonable. Visitors welcome. Farm one mile from town.

Pine Grove Stock Farm.

Breeders of

High-class Scotch Shorthorns, Choice Shropshire Sheep, Clydesdale and Hackney Horses.

Herd catalogue on application. Address:
C. W. WILSON, Supt., Rockland, Ont. W. C. EDWARDS & Co., Limited, Props. ont.

Shorthorns For Sale

Two choice red yearling bulls, from imported sire and dams; also females of all ages. Scotland's Fame (imp.) at head of herd.

ALEX. BURNS, Rockwood P.O. and Station, G.T.R.

MAPLE HILL SCOTCH SHORTHORNS STOCK FARM

of best families. Herd headed by the grandly bred Lavender bull, Wanderer's Star =48686=, a few choice young bulls.

WM. R. ELLIOTT & SONS, Guelph, Ont.

BONNIE BURN STOCK FARM

Offers Scotch and Scotch-topped bulls, cows and heifers, 50 Shropshire rams and ewes and Berkshire pigs, from imp. dams and sires not akin. A bargain for quick sale.

D. H. RUSSELL, Stouffville, Ont.

Willow Bank Stock Farm | Established 1855

Shorthorn Cattle, Leicester Sheep
Imp. Rosierucian of Dalmeny =45220= at head of herd. Choice young stock for sale.
JAMES DOUGLAS, - Caledonia, Ont.

COSSIP.

Illustrated in this issue of "The Farmer's Advocate" is the noted champion draft stallion, Young MacQueen 8033 [2290], foaled in May, 1894, bred by R. B. Ogilvie, Madison, Wis.; second owners, Graham Bros., Claremont, Ont.; sire MacQueen (imp.) [462]. He is now owned by the Wellesley Horse-breeders' Association, of Wellesley, Ont., and will be sold by sealed tenders to be received up to March 13th, 1906. Correspondence should be addressed to John Greenwood, V. S., President, or E. E. Ratz, Secretary and Treasurer, both of Wellesley. Young MacQueen is so well known as hardly to require description. He is a horse of outstanding merit, possessing conformation, quality and action in keeping with his excellent breeding.

HOLSTEIN OFFICIAL TESTS.

Since last report fifteen cows and heifers have made official tests sufficient to qualify them for admittance to the Canadian Holstein-Friesian Record of Merit. All the tests reported were made under the supervision of Prof. Dean, of the Ontario Agricultural College, and their correctness is vouched for by him. The amounts of milk and butter-fat are actual; the amount of butter is estimated by adding one-sixth to the amount of fat, according to the rule adopted by the Association of Agricultural Colleges and Experimental Stations.

Seven-day tests.

1. Tidy Pauline DeKol (3522), at 4 years 7 months 17 days; milk, 465.6 lbs.; fat 17.23 lbs., equivalent to 20.10 lbs. butter. Owner, H. Bollert, Cassel, Ont.
 2. Adelaide Brook DeKol (5278), at 6 years 10 months 27 days; milk, 438 lbs.; fat 17.12 lbs., equivalent butter 19.08 lbs. Owner, Geo. Rice, Tillsonburg, Ont.
 3. Canary Starlight Lassie B. (3960), at 4 years 10 months 12 days; milk, 409.8 lbs.; fat 16.08 lbs., equivalent butter 18.37 lbs. Owner, Geo. Rice.
 4. Belle Dewdrop (4038), at 4 years 2 months 11 days; milk, 402.1 lbs.; fat 16.00 lbs., equivalent butter 18.67 lbs. Owner, Geo. Rice.
 5. Inka Josephine Abbekerk (2565), at 6 years 21 days; milk, 460.3 lbs.; fat 15.07 lbs., equivalent butter 17.59 lbs. Owner, W. W. Brown, Lyn, Ont.
 6. Empress Josephine of Brookside (2019), at 10 years 3 months 29 days; milk, 499.8 lbs.; fat 14.81 lbs., equivalent butter 17.28 lbs. Owner, W. W. Brown.
 7. Winnie R's Countess (4495), at 3 years 2 months 16 days; milk, 375.6 lbs.; fat 14.04 lbs., equivalent butter 16.88 lbs. Owner, Geo. Rice.
 8. Oxford Belle's Lady Aubery (3712), at 3 years 9 months 19 days; milk, 449.9 lbs.; fat 13.22 lbs., equivalent butter 15.43 lbs. Owner, Robt. McGhee, Beachville, Ont.
 9. Clothilde DeKol Waldorf (4409), at 8 years 1 month 29 days; milk, 388.0 lbs.; fat 12.45 lbs., equivalent butter 14.53 lbs. Owner, W. W. Brown.
 10. Car Born DeKol 3rd (4410), at 3 years 1 month 6 days; milk, 372.7 lbs.; fat 12.00 lbs., equivalent butter 14.00 lbs. Owner, W. W. Brown.
 11. Boutsje Pietertje DeKol (6093), at 2 years 9 months 4 days; milk, 820.8 lbs.; fat 11.52 lbs., equivalent butter 13.44 lbs. Owner, Geo. Rice.
 12. Calamity Jane 2nd's Posch (4970), at 2 years 7 months 23 days; milk, 829.9 lbs.; fat 10.55 lbs., equivalent butter 12.31 lbs. Owner, Geo. Rice.
 13. Abbekerk Tryntje DeKol (4241), at 8 years 5 months 29 days; milk, 847.0 lbs.; fat, 10.21 lbs., equivalent butter 11.92 lbs. Owner, W. Rivers, Falden's Corners, Ont.
 14. Princess Calamity Posch (4820), at 2 years 7 months 26 days; milk, 834.9 lbs.; fat 9.97 lbs., equivalent butter 11.63 lbs. Owner, W. Rivers.
 15. Clarice Clothilde 2nd (4972), at 2 years 3 months 26 days; milk, 227.3 lbs.; fat 8.08 lbs., equivalent butter 9.43 lbs. Owner, Geo. Rice.
- Thirty-day test.
1. Sara Jewel Hengerveld (4407), at 4 years 2 months 25 days; milk, 2,453.3 lbs.; fat 78.22 lbs., equivalent butter 91.27 lbs. Owner, W. W. Brown.—G. W. Clemons, Secretary.

Are Your Nerves in Health?

STUDY HERE THE INDICATIONS OF A FAILING NERVOUS SYSTEM.

Dr. Chase's Nerve Food.

It is surprising what hosts of people are suffering as the result of an exhausted nervous system and do not know the nature of their ailment.

They cannot sleep at nights—are restless and fidgety in the daytime—their tempers are easily irritated—little things worry them—they cannot concentrate their minds, and find their memories failing—there are spells of nervous headache—the digestion is impaired—pains and aches of a neuralgic nature afflict them—feelings of discouragement and despondency come over them at times, and they get in the way of looking at the dark side of things.

If this describes your experience you will be interested in Dr. Chase's Nerve Food, for this great food cure gets at the very foundation of nervous troubles and cures in the only natural way, by enriching the blood, revitalizing the wasted nerve cells, and building up the system generally.

Diseases of the nerves take different forms in different people, but they slowly and surely lead to nervous prostration, locomotor ataxia or paralysis—to weakness and helplessness of mind and body.

Dr. Chase's Nerve Food acts strictly in accordance with the laws of nature in creating nerve force in the body, and you can use it with positive assurance that every dose is at least of some benefit to you. Prove this by noting your increase in weight. 50c. a box, at all dealers, or Edmanston, Bates & Co., Toronto.



ARTHUR JOHNSTON Greenwood, Ont.

Offers for sale, at moderate prices, 12 high-class yearling bulls, all sired by imported bulls, and most of them from imported dams. Also imported and home-bred cows and heifers of all ages.

AYRSHIRES AND YORKSHIRES



Young bulls, 2 Aug., 1904, sired by Prince of Barcheekie (imp. in dam); 1 March calf, sired by Royal Star (imp.). Heifer calves, 2-yr.-old heifers and young cows. Young sows ready to mate. Pigs ready to ship. Prices right. Correspondence solicited.

ALEX. HUME & CO., Menie, Ont. Hillview Herd of Prizewinning

AYRSHIRE CATTLE

All animals bred and carefully selected for size, constitution, long legs and deep-milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write

A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont. Winchester Station, C.P.R.

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 PRIZ-WINNING HERD

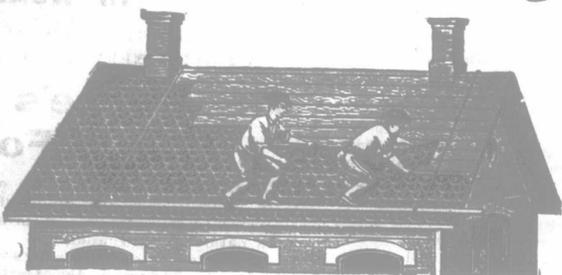
Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to

WM. STEWART & SON, Campbellford Stn. - Menie P.O., Ont.

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STORM
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Made from Painted or Galvanized Steel at prices varying from \$2.85 to \$5.10 per 100 square feet, covering measure. This is the most durable covering on the market, and is an ideal covering for Houses, Barns, Stores, Elevators, Churches, etc. Any handy man can lay the "Oshawa" Shingles. A hammer and snips are the only tools required.

We are the largest and oldest company of the kind under the British flag, and have covered thousands of the best buildings through Canada, making them

FIRE, WATER AND LIGHTNING PROOF.

We also manufacture Corrugated Iron in long sheets, Conductor Pipe and Eave-trough, etc. Metal Sidings in imitation of brick or stone. Metal Ceilings in 3,000 designs. Write for Catalogue No. 14 R and free samples of "Oshawa" Shingles. Write to-day.

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Write Your Nearest Office.
HEAD OFFICE AND WORKS—OSHAWA, ONT.

AYRSHIRES

The famous Reford Herd at St. Anne de Bellevue, Que., now owned by Sir William C. Macdonald.

Several yearling bulls for sale; also a number of bull calves. Quality and appearance extra good, bred from the best milking strains, noted for robust constitution and large teats.

For particulars apply to

MACDONALD COLLEGE
St. Anne de Bellevue, Quebec.

AYRSHIRE BULLS

Fit for service; sired by Royal Peter, imp. Grand Champion at Dominion Exhibition this year; also one May and several August calves by a son of imp. Douglasdale and imp. Minnie of Lessesock, both champions and out of daughters of imp. Daisy and imp. Kirsy.

W. W. BALLANTYNE, Stratford, Ont.

Ayrshire Bulls

For Sale 12 Ayrshire bulls one to two years old. Bred from deep milking stock, both by sire and dam Price reasonable. Correspondence and inspection solicited.

W. Owens, Monte Bello, Que.
Riverside Farm,

AYRSHIRE CATTLE

For sale: One choice yearling bull, \$45; bull calves from dams with milk records from 50 to 625 lbs. of milk per day, from \$35 to \$40 each; high-class dairy and exhibition cows and heifers from \$65 to \$75 each. Above stock is No. 1 quality, tracing direct to imported stock. Also Toulouse geese, \$5 per pair; B.P. Rock and White Wyandotte cockerels, \$2 each. For particulars write

WILLIAM THORN, Lynedoch, Ont.
Trout Run Stock Farm, Norfolk Co.

SPRINGBROOK AYRSHIRES.

Averaged nearly 7000 lbs. of milk last year, testing 3.9% butter-fat. 1 yearling bull; 1 bull calf six months, also females for sale.

W. F. STEPHEN, Huntingdon, Que.
P.O. Box 101.

Meadowside Farm

Ayrshire Cattle, Shropshire sheep, Berkshire pigs, B. P. Rocks and B. Oringtons. Young stock for sale.

A. R. YUILL, Prop., Carleton Place, Ont.

Maple Cliff Dairy and Stock Farm

Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times.

R. REID & CO., Hintonburg, Ont.
Farm adjoins Central Experimental Farm.

AYRSHIRES—Choice stock of either sex, different ages, for sale. Prices reasonable. For particulars apply to

N. DYMENT, Hickory Hill Stock Farm, Dundas St. & Tel. Clappison, Ont.

Brampton Jersey Herd

We have now for immediate sale 10 bulls, from 6 to 18 months old, descended from St Lambert or imported stock; also females of all ages. In order to reduce our stock, we are making a special offer. For full particulars address

B. H. BULL & SON, Brampton, Ont.
Phone 68.

Highgrove Jersey Herd

Our present offering is: 6 young bulls and few females, among them being 1st, 2nd, 3rd and 4th prize winners at Toronto this year. Bred from producers and sired by richly-bred bulls.

ROBT. TUFTS & SON, Tweed P.O. & Sta.

Jersey Bull, fit for service

An extra nice yearling Jersey Bull, fit for service, two bull calves. Prices reasonable.

F. S. WETHERALL, Rushton Farm, Cookshire, Que.

IMPERIAL STOCK FARM HOLSTEINS

A prizewinning herd of imported, officially tested stock. Bulls of all ages for sale, also a few cows. W. H. SIMMONS, New Durham, Ontario.

Grove Hill Holsteins

Herd contains 55 head, a number of which are in the advanced registry. Our stock bulls have all been backed up by high records. Present offering: Several young bulls and a few females.

F. R. MALLORY, Frankford P.O. and Sta., C.O.R.

Buy a Holstein Bull

and Improve Your Dairy Herd? I have them Right in Breeding, Right in Quality, Right in Price. Order early if you want one

G. W. CLEMENS, ST. GEORGE, ONT.

HOLSTEINS AND CHESTER WHITES.

Our Holsteins are producers and prizewinners. Young bulls and a few choice heifers for sale. Also some extra good young Chester White pigs both sexes.

D. G. GOODERHAM, Thornhill P.O. G. T. R. and street cars.

MAPLE GLEN STOCK FARM

Can now offer one young bull, born last spring, and four bull calves, born in Aug., Sept and Oct., from select cows, and sired by the great imp. bull, Sir Alta Posh Beets.

C. J. Gilroy & Son, Glen Buell, Ont.

"GLENARCHY" HOLSTEINS

We have for immediate sale several young bulls, and a number of young females, that for ideal type and superior quality, backed up by gilt-edged breeding, are unsurpassed.

G. MACINTYRE, Renfrew P.O. and Sta.

CENTRE VIEW HOLSTEINS

Young stock, either sex, for sale, from cows with records from 15 to 23 lbs. butter in week. Herd headed by Baron Victorje Posch and A. & G. DeKol Vaughn Burke, imp. These bulls have great backing.

P. D. EDE, Oxford Centre, Ont.

SPRINGBROOK HOLSTEINS & TAMWORTHS

Two choice bulls, 11 and 12 months old, Toronto prizewinners, rich breeding; yearling Tamworth boar, 2nd prize at Toronto, good stock getter; Tamworth sows, bred, and young pigs, pairs not akin. All high-class stock. Come and make your own choice. Prices right.

A. C. Hallman, Waterloo Co., Breslau, Ont.

QUEEN CITY HOLSTEINS

If you would like to purchase a young Holstein bull whose sire's dam has an official record of 590 pounds of milk and 26 pounds of butter in seven days, write to

R. F. HICKS, Newton Brook P.O., York Co.

Holsteins at Ridgedale

A few choice bull and heifer calves on hand for sale, sired by Prince Pauline DeKol 6th. Ages up to 10 months. Write for what you want, or come and see them. Shipping stations: Toronto, Paris, G. T. R., and Myrtle C. P. R., Ontario.

R. W. WALKER, Utica P.O., Ont.

Barren Cow Cure.

Makes cows barren. Prevents abortion. Guarantees or money refunded.

L. F. SELLECK, Morrisburg, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

TELEGRAPH, TELEPHONE AND TREES.

Can telephone or telegraph company cut the limbs off shade trees on the roadside, either on road allowance or off? Ontario. MONAGHAN.

Ans.—They have the legal right to do so, if absolutely necessary.

WANTS TO KNOW ABOUT CEMENT FENCE POSTS.

Did any of your readers have any experience with cement fence posts? What size were they? What shape? How long? How strong of cement do they have to be? How are they fixed for staples for the wire? Should they be pointed on the bottom to prevent heaving with the frost? A. E. B.

PEDIGREES OF STALLIONS.

Could you give me any information about a stallion called Shenaw and also about one called Hermit, and their breeding? J. W.

Ans.—You do not say of what class, whether heavy draft or light. We judge from the names they are either Thoroughbred or trotting stock, of which we have no records in our library.

HEIFER DOES NOT COME IN HEAT.

I have a heifer, two years and five months old, that I have never been able to breed—big, strong and healthy, and not overfed. Is there anything I could give her to bring her in heat? W. W. Y.

Ans.—If the heifer was twinned with a bull, she is a "free-martin," and may never come in heat, as the great majority of such never show signs of oestrus. If she is not of that class, you might try the following, which has been recommended by a breeder, who claims to have proven it effective: Take a piece of dried rennet, half the size of a man's hand, steep it over night in warm water, cut into small pieces, sprinkle with salt; mix together with the water in which it has been steeped with meal or bran. Feed to the heifer, and repeat in a week.

VENDOR AND PURCHASER.

A buys a farm from B on these conditions: A does not take the farm off B's hands till following March. B wants to get rid of it in one month from date bought; comes to A, and insists on A taking the place at once, and giving him twenty-five dollars for his plowing. A says no. I will give you three loads of hay in the wind-row that year, 1905. B does not come for it. Now, B wants \$25 for plowing instead. B was to leave all things on the premises as they were when A bought. When A came to the place, the fence was broken down in front of the house for twenty yards. It was fancy wire.

1. Can A collect damage for fence?
2. Can B collect pay for plowing, when he did not come and get hay as was agreed? J. K.

Ans.—1. Not unless the breaking down of the fence was owing to negligence on B's part.
2. No.

CRIPPLED PIGS—FEEDING COLT.

1. What is the cause of fall pigs, about four months old, that have been fed on boiled potatoes and turnips, mixed with oat chop, and housed in warm, dry quarters, getting stiff in limbs, and what would you advise doing for them?
2. I have a draft filly, about one year and eight months old, weighing about 1,000 lbs., which I would like to give as good a chance as possible. Please advise as how to feed, and how much for the best results? R. B.

Ans.—1. The probability is that they have been fed too heavily and had too little exercise. The winter, up to Feb. 1st, was unusually favorable for giving pigs a run out for exercise, and if advantage had been taken of the conditions, there should have been little of this trouble. Give them salts or raw linseed oil in food to relax the bowels, and, if possible, get them out for an hour in the sunshine in a sheltered place, two days.

2. Feed liberally of whole or chopped oats, and a little clover hay, and a few pounds of timothy hay. Keep in a dry, clean, well-ventilated stable, and give a good ration of good hay.

Many Women Suffer UNTOLD AGONY FROM KIDNEY TROUBLE.

Very often they think it is from so-called "Female Disease." There is less female trouble than they think. Women suffer from backache, sleeplessness, nervousness, irritability, and a dragging-down feeling in the loins. So do men, and they do not have "female trouble." Why, then, blame all your trouble to Female Disease? With healthy kidneys, few women will ever have "female disorders." The kidneys are so closely connected with all the internal organs, that when the kidneys go wrong, everything goes wrong. Much distress would be saved if women would only take

DOAN'S KIDNEY PILLS

at stated intervals.
Price 50 cents per box or three boxes for \$1.25, all dealers or sent direct on receipt of price. The Doan Kidney Pill Co., Toronto, Ont.



You need a HOLSTEIN BULL

to head your herd, sired by a u c h n o t e d sires as

Piebe De Kol," whose dam and sire's dam records average 619.3 lbs. milk, 27.31 lbs. butter in 7 days, or "Duchess Aggie De Kol Beryl Wayne," grandson of the famous "Beryl Wayne," 92 lbs. milk in one day, 27.87 lbs. butter in 7 days, 17,175 lbs. milk in 104 months. We have 12 imported and home-bred bulls to offer of such breeding; also heifers and young cows. Just imported, 36 head in the past six months. 73 head from which to select. It will be to your interest to enquire before buying elsewhere.

H. E. GEORGE, Crampton, Ont.
Seven miles from Ingersoll.

ANNANDALE HOLSTEIN Herd

are the greatest of the breed individually, and backed by great records, viz.:

Brookbank Butter Baron, dam and sire's dam average 23 lbs. butter in 7 days, 4.5 per cent. fat. First-prize bull at Ottawa and Toronto, 1905.
Prince Posch Calamity, dam and sire's dam average 26.1 lbs. butter in 7 days, 86 lbs. milk in one day, 3.6 per cent. fat. Also a prizewinner at Toronto and Ottawa.

Wopke Posma, imported in dam from Holland. Sire Wopke, his dam Boss, greatest cow in Holland. Record: 17,160 lbs. milk in 336 days, 734 lbs. butter, 3.97 per cent. fat.

You don't draw a blank in purchasing a bull from such sires and such dams as are kept at Annandale Stock Farm, Tilsonburg, Ont.

GEO. RICE, Prop.

RIVERSIDE HOLSTEINS

80 head to select from. Six young bulls, from 4 to 7 months old, whose dams have official weekly records from 16 to 21 lbs. butter; sired by Johanna Rue 4th's Lad, a son of Sarcastic Lad, Grand Champion prize bull at World's Fair, St. Louis, 1904.

MATT. RICHARDSON & SON, Ontario.
Caledonia.

WOODBINE HOLSTEINS

Herd headed by Sir Mechthilde Posch, absolutely the best official-backed sire in Canada. Dam Janthe Jewel Mechthilde, 25.8 pounds butter in seven days. Champion cow of Canada over all breeds. Sire's dam, Aaltje Posch 4th, holds the world's largest two-day public test record—8.5 pounds butter. Young bulls of the choicest quality for sale.

A. KENNEDY, Ayr, Ont.
Ayr, C.P.R.; Paris, G.T.R.

Lyndale Holsteins.

For Sale A number of bull calves from one to four months old, out of Record of Merit cows, and sired by Beryl Wayne Paul Concordia, whose four nearest dams have official butter records averaging 22 lbs. 11 ozs. each. We also have three young bulls fit for service.

BROWN BROS., LYN, ONT.

MAPLE GROVE HOLSTEIN-FRIESIANS

For Sale: Three bull calves, sired by Lord Wayne Mechthilde Calamity, and all out of Advanced Registry cows. Apply

WALBURN RIVERS, Folders's Corners.

Leicester Sheep

Choice ram and ewe lambs; also a few yearlings for sale. For particulars write to

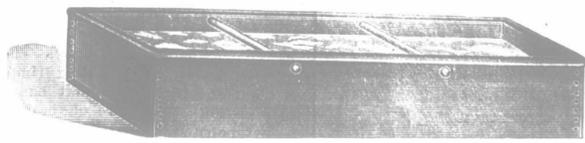
CHAS. F. MAW, Omagh P.O.

Sheep and Cattle Labels.

If you are putting stock out this spring you will need them. Sample and circular free.

F. G. JAMES, Bowmanville, Ont.

"TWEED" STEEL TROUGHS



Your ear, please—for 1906. The "Tweed" Steel Hog Trough made better, improved much, finished slicker, and the price reduced. "Quality up and price down." How is it? That magic word, "machinery," explains it. We have allowed no expense to hinder us making a perfect article at a low price. 50c. per ft.—we should have more—50c. or even more, and it goes. It's the price you wanted. Send order and money, and we do the rest. Every trough guaranteed.

THE STEEL TROUGH & MACHINE CO., Ltd., Tweed, Ont.

BERKSHIRES

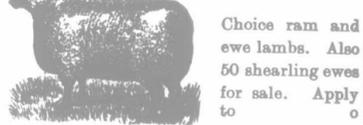
Imported and Canadian-bred H. M. VANDERLIP, Gainsville, on T. H. & B. and B. & G. division of Grand Trunk. Telephone and telegraph, Gainsville.

HILLCREST HERD OF ENGLISH BERKSHIRES

For Sale: A lot of very choice young things of various ages. We prepay express charges and guarantee satisfaction. Enquiries promptly answered. JOHN LAHMER, Vine P.O., Ont.

Shropshire & Cotswold Sheep

SCOTCH SHORTHORNS and CLYDESDALES



Choice ram and ewe lambs. Also 50 shearing ewes for sale. Apply to JOHN BRIGHT, Myrtle Station, Ontario.

SOUTHDOWNS

For Sale: 25 ewes in lamb to the imported rams, Babraham Hodge, Pattern and Glory.

COLLIES Puppies by imported New York Show winner, Wishaw Hero, out of noted prize-winning dams.

ROBERT McEWEN, Syron, Ontario

FAIRVIEW SHROPSHIRE

Nearly sold out. Now offer 4 good quality, medium size shearing ewes, 6 choice ewes, 3 to 6 yrs. old, Imp. and home-bred 15 real good ewe lambs; best of breeding. Young ewes, were bred to St. Louis champion ram and Altamont, a proved excellent sire. Aged ewes were bred to Fair Star Rose, the sire of more winners than any ram in America. Great bargains offered to clear out season's offerings. JOHN CAMPBELL, Fairview Farm, Woodville, Ont.

BROAD LEA OXFORDS.

Present offerings are: Ram and ewe lambs of the low-down, blocky type. Also Yorkshire boar and sows five months old, of improved bacon type. A number of nice Barred Plymouth Rock cockerels at reasonable prices. Correspondence promptly answered.

R. R. Stations: Mildmay, G. T. R. W. H. ARKELL, Teeswater, C.P.R. Teeswater, Ont.

DORSET HORN SHEEP and SCOTCH SHORTHORNS

The latter representing the Nonpareil, Miss Ramsden, Missie and Gloster families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale always on hand.

JOHN A. MCGILLIVRAY, North Toronto, Ontario

100 Shropshires & Cotswolds 100

One hundred head for sale. Ten shearing rams, fifty ram lambs, and sixty shearing ewes. Rams are good enough to head any flock. The ewes are a choice lot and will be bred to imp. ram.

John Miller, - Brougham, Ont

HIDES SHEEPSKINS, FURS

Consignments Solicited. Top Prices. E. T. CARTER & CO., TORONTO

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.

Out offering: Lambs of either sex. For particulars, write to John Cousins & Sons, Bona Vista Farm, o Harriston, Ont.

SHROPSHIRE

Choice ram and ewe lambs for sale; also aged ewes. JOHN HINDMARSH, Ailsa Craig, Ont.

W.W. CHAPMAN,

Secretary of the National Sheep Breeders' Association.

Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

Address: MOWERAY HOUSE, Norfolk St. LONDON, W. C., ENGLAND. Cables—Sheepcote, London.

Lincolns are Booming

We have only a few more ewe and ram lambs and breeding ewes for sale. We have seven choice young bulls, Scotch-topped, and a grand lot of heifers and young cows for sale at reasonable prices. Write or come and see us.

F. H. NEIL & SONS, LUCAN, ONT.

Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world. Hon. John Dryden, President, Toronto, Can. Address correspondence to MORTIMER LEVY-FRING, Secretary, Lafayette, Indiana.

COTSWOLDS

Some good shearing ewes and ewe lambs, and a few choice ram lambs, right type, for sale. Prices moderate.

E. F. PARK, Burgessville, Ont.

NEWCASTLE HERD OF Tamworth Swine and Shorthorn Cattle

Still have a lot of beauties to offer in Tamworths of both sexes, from 2 months to 2 years old; a half-dozen March sows that will be bred in October and November. All for sale at moderate prices. Also four young Shorthorn bulls ready for service, and a half-dozen beautiful heifers.

COLWILL BROS., Newcastle, Ontario.

TAMWORTHS & HOLSTEINS

Two boars sired by Colwill's Choice, sows bred and ready to breed, and a choice lot ready to wean. Pairs not akin. Also cows and calves of the deep milking strains. All at moderate prices. Write or call on BERTRAM HOSKIN, Grafton Sta., G.T.R. o The Gully P.O.

I AM WORTH

3 fine boars fit for service; also a choice lot of both sexes, from 2 to 4 months old, of good breeding stock. Prices reasonable.

Glenairn Farm, Jas. Dickson, Orono, Ont.

Hilfield Yorkshires

Young stock, both sexes, by imp. sire and dam, and the get of imp. sire and dam, up-to-date type with plenty of bone; also one 13-months-old Short-horn bull, dual-purpose bred. A good one. G. B. MUMA, Ayr P.O., Ayr and Paris stations.

YORKSHIRES

My offering is: young stock of both sexes and all ages; bred from imp. stock and the get of imp. stock, they are true to type and first-class in every particular. Write me for what you want.

L. HOOEY, Powle's Corners P.O., Fenelon Falls Station.

POLAND-CHINAS

Two litters farrowed Oct. 19th. Price, \$10, registered, crated and f.o.b. here. Order early, as supply is limited.

S. WETHERALL, Rushton Farm, Cookshire, Que.

Rosebank Herd of LARGE ENGLISH BERKSHIRES

Present offering: Choice stock from 6 weeks to 5 months old, sired by Concord Professor and Willow Lodge Crown 8th. Can supply pairs and trios not akin. Satisfaction guaranteed. Express prepaid.

JOHN BOYES, Jr., Churchill, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

SHARING AN ESTATE.

A and B have been married twenty-two years, but have no children. Could A's brothers and sisters claim a share of his property in case he should die before B, not having made a will, and never having received any portion from his father? Ontario. G. H.

Ans.—Yes; they would be entitled to a portion of all estate over what would be sufficient to pay the debts and funeral and testamentary expenses and \$1,000 to B, the widow.

THICKNESS OF CONCRETE WALL FOR HOUSE MIXING CONCRETE.

1. If walls for dwelling-house, 36 x 40 feet, are built of cement concrete, would 12 inches thick be strong enough for walls 27 feet high?

2. Which method makes the better wall, to use a frame, which is raised as the wall is built, putting in the concrete mortar moderately dry; or to make a sort of box for the wall with ship-lap, pour the concrete into this quite wet, and allow the box to stand until some time after the wall has been completed, field stone being used to fill in center of wall in both cases? Temiskaming Dist., Ont. W. C. S.

Ans.—1. Quite strong enough. The upper story might, with perfect safety, be reduced to a thickness of nine inches.

2. The only advantage the latter method would have over the former would be that no air spaces would be left in the concrete, it would be perfectly solid. If, when concrete mortar is used moderately dry, it is rammed until all interstices are filled—until water shows—it will be as strong as the other. A mason who makes a specialty of building concrete walls, says that he prefers mortar rather wet, because he cannot get his men to ram it sufficiently when on the dry side.

CRUSHED STONE OR GRAVEL—CAPACITY OF SILO—OCTAGON MEASUREMENT.

1. Which is better, crushed stone or gravel, for cement silo? 2. What size should the crushed stone or gravel be? 3. How do you estimate capacity of silo in tons? 4. Given the length of one side of an octagon, how can one find its width? 5. Given the length of one side of an octagon, how can one draw remainder of figure? W.

Ans.—1. Crushed stone would probably make the strongest wall, but as gravel is good enough, it may as well be used, unless the other can be got as cheaply.

2. Gravel should be of no one size, but of all sizes, from coarse sand up to stones two inches in diameter. Stones of any size, whether broken or whole, may be imbedded in the concrete, so long as they are under the surface on both sides.

3. To estimate the capacity of a silo in tons, first find the capacity in cubic feet. The formula for this is 22÷7 times the square of the radius, multiplied by the height. A silo 12 feet in diameter and 25 feet high would have a capacity of 6x6x25x22÷7=19,800÷7 cubic feet. The average weight of a cubic foot of silage is 40 lbs., which means that 50 cubic feet weigh a ton. The capacity of our silo in tons would thus be 19,800÷7÷50=56 4-7 tons.

4. Multiply the length of one side by 2.414 and you have the diameter from center to center of opposite sides to within the nearest fraction.

5. Here is a homemade formula: Take two pieces of board, each the exact length of one side of octagon. Join them together at the proper angle, which is just half way between a line extended straight and one turned at right angles, or square across. Using this implement mark two sides, then shift and mark another, and continue until the figure is complete. Or, describe a square, each side of which is length of one of the sides of octagon desired. Then extend each of the four lines forming the sides of square a distance of .707 of the length of the line itself in both directions. Join by straight lines the points of the eight lines extended, and you have the octagon.

Ring-Bone

So common nearly every body knows it when he sees it. Lameness and a bony enlargement just above the hock, higher and on the upper pastern bone, sometimes extending nearly around the part, sometimes in front only, or upon one or both sides. Cases like the latter are called Sidebones. No matter how old the case, how big the lump, how lame the horse, or what other treatment has failed, use

Fleming's Spavin and Ringbone Paste Use it under our guarantee—money refunded if it fails to make the horse go sound. Often takes off the lump, but we can't promise that. One to three 45-minute applications required and anyone can use it. Get all the particulars before ordering—write for Free Home Book that tells you what to use for every kind of blemish that horses have. FLEMING BROS., Chemists, 44 Front Street, West, Toronto, Can.

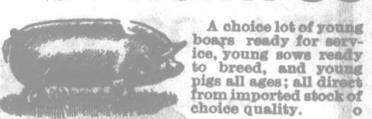
LARGE ENGLISH YORKSHIRES



Pigs of the most improved 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 pigs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.

D. C. FLATT & SON, Millgrove, Ont.

Large White Yorkshires



A choice lot of young boars ready for service, young sows ready to breed, and young pigs all ages; all direct from imported stock of choice quality.

H. J. DAVIS, Importer & Breeder of Shorthorns & Yorkshires C.P.R. and G.T.R. Woodstock, Ont.

WOODSTOCK HERD OF BERKSHIRES

A few fall pigs left, sired by Imp. Polgate Doctor. Also am booking orders for spring pigs, for which I can supply pairs not akin at reasonable prices.

Imp. Polgate Doctor. DOUGLAS THOMSON, Woodstock, Ont.

ORCHARD HOME HERD OF LARGE ENGLISH YORKSHIRES

Now on hand, Feb. 8th: A choice lot of boars and sows, 3 to 4 months old. We furnish stock of most approved type and high quality. Our record for 1905: Every customer pleased and satisfied. Place orders now for spring pigs. Address: S. D. CRANDALL & SONS, Cherry Valley, Ont.

Glenburn Herd of YORKSHIRES

Now on hand, a number of sows, 5 and 8 months old, for spring farrow; also a large number of September sows and boars. Booking orders for spring pigs. o DAVID BARR, JR., Box 3, Renfrew, Ont.

Oakdale Berkshires

Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.

L. E. MORGAN, Milliken Stn. and P.O. MONKLAND YORKSHIRES

Imported and Canadian-bred. We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

JAS. WILSON & SONS, FERGUSON, ONT. G. T. R. and C. P. R. Long-distance Phone

YORKSHIRES

Young boars fit for service. Sows bred or ready to breed from choice imported stock. Also young pigs for sale—reasonable.

For particulars apply to GLENHODSON CO., Myrtle Station, Ont. C. P. R. and G. T. R. LORNE FOSTER, Mgr.

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; pedigree and safe delivery guaranteed. Address: E. D. GEORGE, Putnam, Ont.

**HORSE
HIGH**



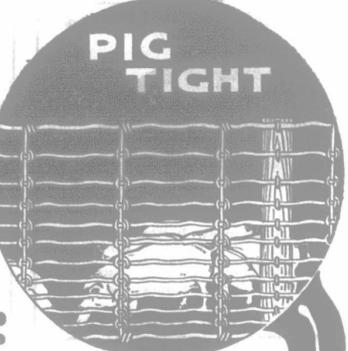
All
No. 9
Wire

**BULL
STRONG**



All
No. 9
Wire

**PIG
TIGHT**



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Peerless
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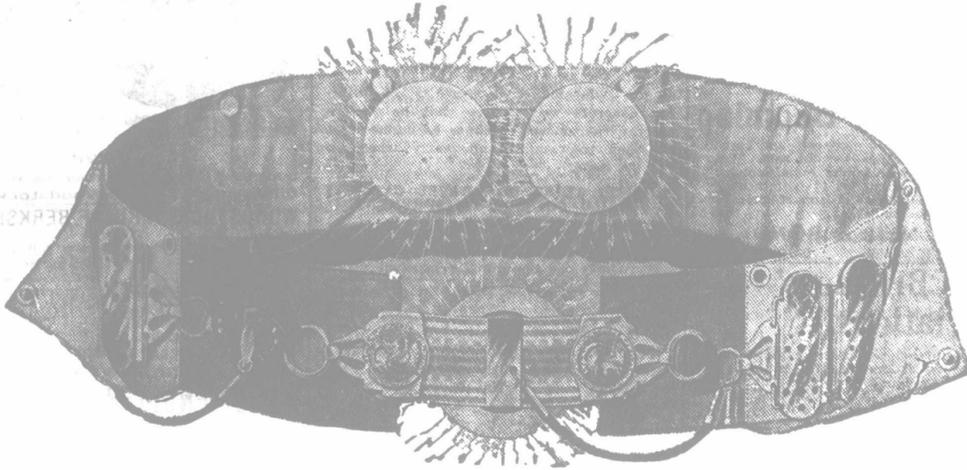
The fence to buy is the fence that will turn any kind of stock and last the longest. When we say that fence is the Peerless Woven Wire Fence we have plenty of good reasons why. We want you to know we have a fence that is horse high, bull strong, pig tight. That means a fence made of material that is genuine in quality and so constructed that it will stand double the strain ever required of it. That's the Peerless. The makers of

nor sidewise, making the most rigid, solid and firm fence possible to build. Big, heavy galvanized hard steel wire perfectly uniform in size is used throughout. It's the economical fence, the life-time fence—the fence upon which you can always rely. Let us send you more reasons why—a post card will bring you our fence book that's full of good common sense fence advice—fence facts that will save you money. It's free, address

The Banwell Hoxie Wire Fence Co., Ltd., Dept. B, Hamilton, Ont.

IT'S ALL IN THE LOCK  **WILL TURN ANY KIND OF STOCK**

ELECTRIC BELT FREE!



UNTIL YOU ARE CURED.

I believe in a fair deal. If you have a good thing and know it yourself, give others a chance to enjoy it in a way they can afford.

I've got a good thing. I'm proving that every day. I want every weak, puny man, every man with a pain or an ache to get the benefit of my invention.

Some men have doctored a good deal—some have used other ways of applying electricity—without getting cured, and they are chary about paying money until they know what they are paying for.

If you are that kind of a man this belt is yours without a cent of cost to you until you are ready to say to me: "Doctor, you have earned your price, and here it is."

That's trusting you a good deal and it is showing a good deal of confidence in my belt. But I know that most men are honest, especially when they have been cured of a serious ailment, and very few will impose on me.

As to what my belt will do I know that it will cure wherever there is a possible chance, and there is a good chance in nine cases out of ten.

So you can afford to let me try, anyway, and I'll take the chances. If you are not sick, don't trifle with me, but if you are you owe it to yourself and to me, when I make an offer like this, to give me a fair trial.

I want you to know what I have done for others. I have received great benefits from your Belt. I understand the directions thoroughly, and my back is all right. I am not wearing it this last couple of weeks. I feel like a new man. I am satisfied with my investment all right and would have written sooner but could not. I will advise anyone I see suffering to write to you and will praise your Belt. JAS. LAWLIS, Box 77, Port Arthur.

If you would believe the thousands of men whom I have already cured, my belt is worth its weight in gold.

Since using your Belt I find that the pain in my back is entirely gone, and the other ailments are gradually disappearing. JOHN F. DUNCAN, 294 Dundas Street, London, Ont.

But some men don't believe anything until they see it. That's why I make this offer. I want to let you see it, and feel it and know it, by your own experience before I get a cent.

If I don't cure you my belt comes back to me and we quit friends. You are out the time you spend on it (wearing it while you sleep) nothing more.

But I expect to cure you if I take your case. If I think I can't cure you I'll tell you so and not

waste your time. Anyway, try me, at my expense.

Come and see me and let me show you what I have, or if you can't, then cut out this coupon and send it in. It will bring you a description of my belt and a book that will inspire you to be a man among men, all free.

Office Hours—9 a.m. to 6 p.m. Wed. and Sat. till 8.30 p.m.

IT TO ME TO-DAY.

DR. M. S.
McL/UCHI IN
130 Yonge St.
Toronto.

Please send me your
book, closely sealed,
and oblige.

Name

Address

A Book Worth \$100 Free.

GOSSIP.

In ordering a change of advertisement, C. & J. Carruthers, Cobourg, Ont., breeders of Shorthorn cattle, Yorkshire swine and Leicester sheep, mention that the young bulls and heifers they are offering are by British Flag (imp.), one of the best stock bulls that has been in their section. They are of the low-down, beefy type, and are from their best milking cows, got by such bulls as Indian Wave, by Indian Chief (imp.), British Hope, Royal Charlie (whose dam was Nonpareil 52nd), and Village Boy 5th. The bulls and heifers range in age from ten months to three years, and are all in good breeding condition. They are all for sale, at prices in reach of anyone. They will meet parties at Cobourg station if notified.

BELMAR PARC SHORTHORNS.

Five years ago marks the epoch of the foundation of this now noted herd, and when we look over the 86 head of high-class animals now so comfortably quartered in the commodious barns, and think of the almost insignificant beginning so few years ago, it seems almost incredible that such a high-class herd could be built up in so short a time. It certainly required a vast amount of enterprise and good sound judgment, and these essential requisites were amply displayed by the owner, Mr. Peter White, Jr. The farm lies just outside the corporate limits of the Town of Pembroke, Ont. (C. P. R. and G. T. R.), comprises about 350 acres, on which are erected a set of buildings planned by a master hand, as the layout for convenience of feeding, cleaning, ventilation and light is nearly perfection. The herd represents such noted Scotch blood as the Mayflower, Marigold, Bruce Countess, Duthie Sunshine, Rosalie, Missie, Wimple, Amaranth, Rosebud, Claret, Crimson Flower, Bruce Fanny B., Marr Averno, and Duchess of Gloster, the get of such noted bulls as Magistrand (imp.); the Lady Ythan bred bull, Brave Ythan (imp.); the Marr Roan Lady bred bull, Scottish Pride (imp.); the Flora bred bull, Orange Victor; the Cruickshank Cicely bred bull, Crescent Knight (imp.); the Scotch M. bred bull, Merriman (imp.); the Golden Drop bull, Royal Prince (imp.); the Kinellar Nonpareil bull, Nonpareil (imp.); the Lady Dorothy bull, Scottish Fame (imp.); the Missie bull, Merry Morning; the Roan Lady bred bull, Sailor Champion; the noted old sire, Prince of Archers; the Verbena bred bull, Diamond Sweep; the Marr Missie bull, Royal Edward, and the Brawith Bud bull, Gravesend Heir. From the above it will be seen that the breeding of the herd is unsurpassed in this or any other country, while individually they are a massive, low-down, thick-fleshed lot, and among them are a number that have won their spurs at Toronto, Ottawa, and other shows. Many of them are imported, bred by such noted breeders as Duthie, Marr, Willis, Campbell, etc.; in short, this is one of the very foremost herds in Canada, and under the skillful management of Mr. John Douglass are in grand fettle. The herd bulls are, first, the well-known Toronto winner, Imp. Nonpareil Archer, bred by Robert Bruce, sired by Prince of Archers, the greatest son of the greatest sire, Scottish Archer; dam Nonpareil Blossom 2nd, by Sittyton Sort. He is a bull of great scale, and carries a wealth of flesh put on just about right. Second in service is the Toronto junior champion, Marigold Sailor, by Sailor Champion, a son of the great sire, Imp. Royal Sailor; dam Marigold 6th, by Imp. Prime Minister. He is a bull of faultless form, and has quality from the ground up. Third in service is Merry Monarch, by Merry Champion; dam Maude 4th, by Spicy Robin. This is one of the coming show bulls, straight lined, even fleshed and full of Shorthorn character. Among the younger ones are several bulls about 9 and 10 months of age, some out of imported dams, and the get of Imp. Merriman and Orange Victor, one of the best lots of young bulls we have seen for many a day, an exceedingly thick lot, covered with a wealth of hair that stamps them at once as extra good doers. As a sire, Imp. Merriman has had few equals on this side of the water at least. Anyone wanting a herd header will miss it by not looking after these young bulls. Mr. White is certainly to be congratulated on his herd, and we look for great things from it in the future.