

J.H. Grisdale
Exp. Farm, Ottawa
Feb 20, 1900

MANITOBA AND WESTERN EDITION

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED
FOUNDED 1866

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

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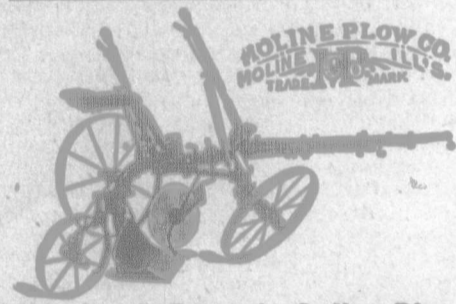
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FARMER'S ADVOCATE

AND HOME MAGAZINE

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

VOL. XXXIV.

LONDON, ONT., AND WINNIPEG, MAN., APRIL 5, 1899.

No. 475

Good Advice for New Settlers.

To the Editor FARMER'S ADVOCATE:

SIR,—I am glad to see some more Manitoba farmers beside myself are advocating the grass rotation system of farming in your columns. As one of the principal objections to it is the cost of fencing, I intend some day soon to send you a few notes on fencing, as it, like everything else, requires experience. I can put up a mile of fence now with about a quarter of the labor and expense that I could when I began, and make a better job of it.

In reply to yours of recent date, I will give you a brief account of how I treat new land. I consider it is much better on prairie land, especially if it is heavy soil with a tough sod, to break shallow and backset than to only plow once, as the crop is generally much better, and it is easier to backset land the year it is broken than it is after it has had a crop grown on it. If land is moist when broken the sod will keep the moisture in, and even if the fall is dry the backsetting can be well done, but if a crop is grown on the sod in a dry-summer it is almost impossible to plow the land deep that fall. I am a firm believer in deep plowing even from the backsetting, and also in taking a furrow no wider than the plow is made for. I believe this country loses more every year by bad plowing than it does by hail storms. My land is rolling prairie, with some stones, and a few red willow and poplar bushes. I like to take these out as well as possible before breaking. The buffalo willow does not matter; the breaking plow will cut it. There are some new kinds of breaking plows in use now that I have not tried. I still stick to the old wooden-beam, short-handled breakers we used in 1883 and 1884. These plows are awkward to handle if not set right, but if they are set right they are easier on the team, and will do as good work as any other. When a straightedge is laid along the landside the point of the share should be about $\frac{1}{2}$ of an inch below the line. The rolling coulter should be about an inch out from the landside, and an inch higher than the bottom, and as far back from the point as it will work. There is nothing better than a good heavy yoke of oxen for breaking, and for backsetting, three oxen on a 16-inch walking plow make an outfit hard to beat. Of course, horses are just as good if heavy enough for the work, but for a new settler they are more expensive to buy and to feed. For backsetting, my choice of plows is the John Deere or Moline; they are good cleaners, and I have never yet sprung a beam by running into stones or roots. I like to take about two to three inches of soil below the sod, and then work down with the disk and common harrows till fine enough for the drill; then drill $1\frac{1}{2}$ bushels per acre of good wheat, well blue-stoned, and give one stroke of the harrow after the drill. I have grown very fine crops of wheat on new land by sowing two bushels per acre with the broadcast machine, with three strokes of the common harrow and no disk, but think the drill is safest. I never could see that it made any difference whether the grain was drilled east and west or north and south. On older land I always like to give a stroke of the harrow about a week after the grain is sown. This kills a good many weeds just before the grain comes up, and gives the grain the start of any that grow later. After the grain is up, the new "weeder" lately described in your columns can be used to great advantage. On sandy land there may be some danger of making the soil drift by working it too much. My experience has been all on land that does not drift, and on such land I think it is hardly possible to put too much harrowing at seed time. A heavy roller is a good thing on spring-plowed land to settle it down, but rolling grain after it is up has been abandoned by most farmers in this district. I have rolled pieces and missed pieces, and I thought if there was any difference, the crop was a little better where it was not rolled.

In starting a new farm, I would like to lay it out so that it can be divided into six or seven fields, and a grass rotation followed, such as described in your Jan. 20th and subsequent issues. The first breaking should always be done square with the section lines to avoid getting three-cornered pieces at the outside. Farm buildings should be placed as near the center of the farm as possible for convenience in drawing produce in from and manure out to the fields; but of course there are questions such as water supply, shelter, good site for buildings etc., which have to be considered. CHAS. E. IVENS.
Wallace Municipality, Man.

Small Fruits for the Farmers of the Northwest.

To the Editor FARMER'S ADVOCATE:

SIR,—There are many ways in which our farmers could improve their condition and curtail the steady drain on their income for necessaries and luxuries, which is the bane of the Northwest farmer. Too much of our hard-earned money is sent out of the country for horses, cattle, meats, poultry, fruit, etc., most of which can be produced as well, and in some cases better, on our own farms. On the growing of fruit I will give your readers some of the results of a good few years' experience, leaving the others to someone better qualified. That we can grow most of the small fruits well has been fully demonstrated. That apples, plums, etc., will yet be found to do fairly well here I have very little doubt; at the same time, I do not think it would be advisable for a farmer to go into them very extensively at present. Better wait and see how our Experimental Farms and some of the private experimenters who are doing such a good work succeed first. Now, in a great measure success in the culture of small fruits depends on adequate shelter from the winds and thorough cultivation of the soil, and as the same essentials are necessary in growing to perfection most kinds of garden vegetables, there is no way that will give better results with a minimum of cost than growing them in the same plot. If you have natural shelter, by all means take advantage of it; if not, then you must supply shelter, and nothing is better for this than two or three rows of native maples planted round your garden, except, perhaps, a close board fence, and that would be too expensive for most of us. Say you wish to enclose about one-half acre. Lay off a piece of land one hundred and six feet wide and two hundred and ten feet long; plow deeply and give a thorough harrowing, then lay off three rows four feet apart, the first row three feet from outer edge, right around your plot, leaving an opening ten or twelve feet wide at one corner for an entrance. These rows should be planted with maple trees one or two years old or sown with maple seed. If maple is not available, elm or white poplar will make a very good substitute, or two rows of maple or poplar and one row of *Artemisia abrotanum* will make a very good wind-break; but if poplar is used, get your young trees from the outside of an exposed bluff, not out of a coulee, and do not transplant until the leaves are commencing to open. There is nothing imperative in the shape or size of your enclosure—that must depend on your own taste or on the position of the land available—but a long, narrow plot, crossways to the prevailing winds, is the most economical in planting and working, the best sheltered from wind, and will collect most snow in winter, which is of the utmost importance.

Your plot is now laid out. Open up a good deep furrow with a plow where the first row of trees is to be. Along this furrow enlarge a place for the tree every two feet. A man then takes the small trees, with the roots well covered with a wet sack, or, better still, in a large pail with water in it. He places the tree and firms the soil round the roots while another man shovels it in until the hole is a little better than half full, and just here the secret of success or failure comes in. Never let the roots of your trees get dry, and see that you tramp the earth closely and firmly about the roots. Do not be afraid to use your feet. I do not think there ever was a tree killed by over-firming, and I do know that thousands die for want of it. When all the trees are planted in a row, give them a good watering. A couple of barrels on a stoneboat is a very handy way to do it. When the water has all soaked in, fill up the rest of the hole and the furrow between the trees, but do not tramp. Then go on with the next rows in the same way, and that part of the work is done. A horse hoe run between the rows three or four times during the season, and the same with a hand hoe between the trees, should keep them in good shape. A shelter belt planted and cultivated in this way should by the time your fruit bushes come into full bearing afford full protection from winds. You may say that this entails

a great deal of work, but as all the heavy work is done with the plow and harrow, you will be astonished what a short time it takes, and then, remember, it is done for a lifetime. You have now a plot eighty-four feet wide and one hundred and eighty-eight feet long inside your rows of trees. Mark off fifteen feet from each end and twelve feet from each side for a roadway. This may seem a great waste of ground in a small plot, but you will find it none too much for getting in with manure, etc., and turning the horse in plowing and cultivating; besides, in a year or two very little would grow within six feet of your hedges. You will have room in this plot for seven rows ten feet apart, and forty bushes four feet apart in the row—in all, two hundred and eighty. In planting the bushes, follow the same method as that given for the hedges. Between the rows vegetables can be grown to good advantage, and will ensure the cultivation necessary for the well-being of the bushes.

I will now give a few varieties that have proved the most satisfactory in the Northwest. In red currants, Red Dutch and London for the main crop, and a few Fay's Prolific, a very large and attractive berry, but not an extra strong grower. In white currants, White Grape is the best; in black, Black Naples and Lee's Prolific are good enough for any garden, although old-fashioned. All these, with a reasonable amount of attention, can be grown just as well as in the older Provinces, and with much less trouble from insect pests. I wish I could say as much for gooseberries. Some years they do as well as could be wished for, but are not to be depended on for a crop every year. Houghton, Columbus, Smith's Improved, and Lancashire Lad are the hardiest, and all have good fruit. In raspberries, Dr. Reider and Turner in red and Caroline in yellow are the best and hardiest, and if covered with earth in winter are almost sure to give a good crop, but unless covered in winter there is no use trying to grow them, except in some rare and favored spots. Strawberries are not a very satisfactory crop, but always give some fruit, and some years a good crop. They do best if planted in some position where they are well covered with snow in winter and allowed to grow thickly, but kept clear of grass and weeds. Windsor Chief and New Dominion do fairly well, but I think the old-fashioned Willson does best of any.

Although not really one of the small fruits, a row of sand cherry is well worthy of a place in the garden, the growth being much the same as the berry bushes. Some of the varieties are very good, while others are worthless, as in the case of seedling plums, but by planting a row of them, as they soon come into bearing, the inferior ones could be grafted or budded from good trees. Now, Mr. Editor, this is written for our Northwest farmers, not for professional horticulturists, and I only give a very few of the hundreds of varieties of small fruits that are in the market, but those I have given will, like the Red Fyfe wheat, stand the test of trial.
GEORGE LANG.

Indian Head, Assa.

Horse Breeding in Manitoba.

To the Editor FARMER'S ADVOCATE:

I imagine many of your readers are not aware that at the present time there are at least 200 horses per week being imported into this Province and sold to farmers at from \$250 to \$325 per team. Surely this is not right, and, with the fact to face that horses are going up in price all over the world, the farmer in Manitoba will soon be paying the old-time prices for horseflesh, which, as we know, kept many farmers poor in the early days. I have myself, in the last six years, sold upwards of 2,000 horses in this Province at good prices, and have been wondering all the time why the farmers do not make better use of the few good sires we have in the Province, and form syndicates to import others which would produce the class of horse best suited to this district. Surely on almost every farm we can find at least one good mare which, if mated with a good horse, would produce just as good a colt as the farmer is at present paying \$150 for, with the prospect of having to pay much more for the same horse within the next two years. I have been interested in some good sires myself and know of others in the Province, and it is a sad fact that none of them are paying their owners, simply from the lack of interest taken in horse breeding at the present time in Manitoba. However, it is better late than never, and I would advise every farmer who has a good mare to breed her the coming season and he will find it will pay him even better than wheat.
Winnipeg.
CHAS. KNOX.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

PUBLISHED BY

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

Address—THE FARMER'S ADVOCATE, OF
THE WILLIAM WELD CO.,
WINNIPEG, MANITOBA.

Polled Angus-Ayrshire Cross and the General Purpose Cow.

To the Editor FARMER'S ADVOCATE:

SIR,—I notice in your issue of March 6th an enquiry as to crossing Polled Angus bulls on Ayrshire cows. I have had some experience in Scotland with this cross, but can scarcely agree with Mr. Ferguson's opinion that "the best beef cattle cross from an Ayrshire is through the Polled Angus bull." This dictum may be true as to quality and early maturity, but the element of size or weight has to be considered, and if this is taken into account, I have no hesitation in saying that the Shorthorn cross is the most profitable on Ayrshire cows. This is true also of undersized cows of any breed or grade. As is universally admitted, there are no better butchers' cattle than the Polled Angus and their crosses; but bulls of that breed should be put to cows of some weight and substance. Ninety per cent. of the calves will be polled and black. From Hereford cows the white face will appear on the black body. From white cows the calves will generally be blue-grays. In Scotland—apart from the pure-bred herds—farmers' cattle are generally Shorthorn grades with a strain of Ayrshire blood. The steers are splendid butchers' cattle and come early to maturity. The heifers make good dairy stock. To use a much-abused term, they are "general purpose" cows.

In Manitoba the question is often asked at farmers' meetings, "What is the best breed of cow for the Manitoba farmer?" The answers are various. If a dairy expert is present he will probably reply: "You must not attempt to combine beef-making with dairying. If you go in for dairying you must have cows of one of the distinctive dairy breeds. You must sacrifice the beef-making qualities to the milk pail." "But what shall I do with my steer calves?" asks an innocent enquirer. "Oh, knock them on the head," says our expert. This is mischievous doctrine, and enough to discourage any farmer who is a lover of live stock from embarking in the dairy business. There is no incompatibility between dairying and beef raising. The one is the complement of the other; and here, as in Scotland, the man who recognizes this is more likely to make a success than his neighbor who knocks his dairy-bred steers on the head.

Eastern Manitoba.

Wheat Cultivation in the Territories.

To the Editor FARMER'S ADVOCATE:

SIR,—You have very kindly requested my views on important points in connection with the cultivation of the soil and growing wheat in the Territories.

Preparation of the Land.—For new settlers this must necessarily be the first matter of importance, and as you no doubt have, and will continue to have, many newcomers as subscribers, permit me to refer to "breaking and backsetting" as the first preparation. Breaking is best done in the month of June, and is no doubt intended for this month alone; but the wants of man require that part of it be done before of after the month mentioned, and it seldom happens that breaking is confined to the proper period. June is our rainy season, and to break properly rain is an absolutely necessary adjunct. Breaking should be done as shallow as possible, one and a half to two inches at the deepest, and turned in narrow furrows "as flat as a pancake"—if I may use the expression. Rolling, where practicable, will materially aid in the rotting process. In six to eight weeks' time, according to the amount of rain that has fallen, backsetting can be started, as by this time the sods will have rotted sufficiently to break in pieces.

Backsetting is simply turning each furrow back to its original position, with the addition of one or two inches of new soil. To accomplish this, plowing should be done in same direction as breaking, and from one to two inches deeper. So far as the crop is concerned, nothing is gained by going deeper than two inches, and each additional inch increases the draft on the horses and occasions a loss of time. After backsetting, if a disk harrow be used, and the surface made as fine as possible, the preparation is complete. In many cases breaking cannot be finished by the end of June. After this date, instead of continuing to plow shallow, the sod should be turned over three to four inches deep, and not backset, but cut up with disk or spade harrow, and in this way made ready for the crop. In no case will such preparation produce as good returns as breaking and backsetting which has been done at the proper time, but it helps to increase the acreage for crops, and to a limited extent may be made to serve the purpose. In some parts of the Territories breaking and disking constitute the entire preparation of the land, and when breaking is done in June to a depth of three to four inches, and the sod, when thoroughly rotted, is cut up by spade or disk harrows, good results may be anticipated. Breaking and backsetting at the proper time, however, gives the best results, and in the end saves labor. After one crop of grain has been taken from either breaking and backsetting or deep-breaking, it is advisable to follow the land before sowing the second crop, after which the land should be followed every third year.

Fallowing land constitutes the mainstay of success in securing good crops in every part of the Territories, and if done in accordance with the climatic conditions of each district will ensure a good or fair crop of grain each year. Fallows, like breaking, should be plowed the first time early enough to secure full benefit of the June rains. If left until rains are over and weeds have attained their full growth, the work, no matter how well done, is no better than face-plowing, which time and again has proven to be a very unsafe preparation for crops of any kind in the Territories. Until such time as land is proof against winds, or where winds are not severe, the land should be plowed from six to seven inches deep in May or June, and cultivated, harrowed or stirred in any way to keep down weeds and loosen the top two inches of soil at least three or four times during the growing season. Stirring the soil retains the moisture, which, if not absorbed by weeds, will be sufficient for the crops the following year, even in the event of a light rainfall.

Where soil is old and is subject to injury by winds after the grain is sowed, it has been found that plowing deeply and cultivating the surface during the summer pulverizes the soil to such an extent that it becomes in the best possible condition to suffer from winds. To overcome this as much as possible, the first plowing should be done to a depth not exceeding five inches, after which cultivate as advised above, and when the growing season is over plow again, going one to two inches deeper than formerly. The last plowing will bring to the surface sod which has not been worked, and which will not blow to any great extent. There is, however, one objection to this method of making the fallow. Many weed seeds which in previous years have been turned under to a depth of six to seven inches are made to germinate, having been brought to the surface by the last plowing. These seeds, however, will have germinated by the time the grain is appearing, and the weeds should then be entirely killed by harrowing; there being no risk of injuring the grain plants if harrowing is done at the time the grain is appearing above the ground. One-third of the land under cultivation should be fallowed each year. When this is done, one-half of each crop will be on fallow and one-half on stubble land that has produced one crop after fallow. Where fallows are properly made a large quantity of straw will be produced, which, when harvested, should be cut as high as possible and left until the following spring. After the fallow land has been sown, choose a warm, sunny day, with a south or south-west wind, and burn the stubble. To ensure

a good burn, scatter straw on the outer edge of the whole field, so that advantage may be taken of the first warm day, irrespective of the direction of the wind.

Seed.—There should be no mistake made in this important matter, and it is safe to assume that the best seed procurable is none too good. While No. 2 wheat may make good seed, it should never be used if No. 1 is available. Very often favorable springs, with plenty of moisture, produce good crops from inferior seed; but more often unfavorable springs will give the very reverse, and as exceptional seasons are the rule, no risks should be run. Seed should be changed from light to heavy soil, or the reverse, once every four years.

Treatment of Seed.—To old settlers nothing need be said as to the advisability of treating seed with bluestone as a preventive of smut. With newcomers it is different, and I give the remedy, which, when properly applied, is a sure preventive of what at one time was one of the Northwest farmers' worst enemies. Take one pound of bluestone, crush fine, dissolve in boiling water in a wooden pail, add two and a half pails water. This is of sufficient strength for ten bushels clean seed. If seed be afflicted in the least by smut, use one and one-quarter to one and one-half pounds bluestone with the same quantity of water and seed as mentioned above. Put solution in a half-barrel, in which dip the seed contained by an oat sack, allowing it to remain in the solution for one to two minutes. After draining, empty seed in a heap and allow it to dry in the pile. For smut in oats the following treatment has been used for the past two years on the Experimental Farm with excellent results: In ten imperial gallons of water mix three ounces of formalin. In this solution soak seed for two hours. The seed will be considerably swollen, and when sown, one-half bushel by measure per acre should be added to the quantity usually sown. The trouble in applying the above treatment may be thought too great, but the results will fully justify it. [Mr. Bedford, in his experiments at the Brandon Farm, found five minutes soaking as effective as two hours.—ED. F. A.]

Seeding.—Seed should invariably be sown by drill, either of the hoe, shoe or rolling-cotter patterns, and never broadcast, except on breaking or backsetting where drills may not work, as in broadcasting it is impossible to put the seed in deep enough to escape injury by dry weather and winds. Two and one half inches is about the proper depth to sow wheat. Although in favorable seasons one and one quarter bushels good seed per acre will be found sufficient, it is safer to sow one and one half bushels per acre for fear of unfavorable springs.

Sowing East and West or North and South.—No difference has so far been observed in the different directions of seeding. At the beginning of the windy season the east and west seeding may resist the blow slightly better than that sown in opposite direction; the drill marks, however, will soon become entirely obliterated, after which it is immaterial which way the drill has been run. Some claim that seeding east and west prevents the hot winds of July and August entering the field on account of the drills running in an opposite direction to the prevailing winds. Where the soil has been properly fallowed hot winds do not affect it or the crop to any great extent; stubble land, however, having little or no moisture is liable to injury, no matter how the grain is sown.

Harrowing after Seeding.—This is a matter that has not yet received very much attention from farmers, but is one deserving consideration, and should be tested by every one for his own satisfaction. In new land, with few or no weeds, or in land which has been fallowed and the first plowing has been finished before June rains came on, and the cultivation afterwards has been sufficient to encourage germination of weeds and then destroy them, harrowing is not necessary. In old land, full of weeds, or on late worked fallows, harrowing is of very great advantage, not only in killing the weeds, which is the main object, but in keeping the top soil loose as long as possible to act as a preventive of evaporation. Where land is rough, harrowing should be done just before or at the time the grain is appearing above ground, when two strokes of iron harrows should be given. No harm will be done if a third stroke be given in the course of a week, or before the grain gets too high. It is impossible to state definitely the time which should elapse between harrowings. In some springs with rapid growth, a few days is sufficient; in other years, when growth is backward, a week or ten days will not be too long. Grain to be harrowed should be sown at least two and one-half inches deep. Broadcast seeding will be more or less injured by harrowing. An implement called the Breed Weeder is very useful, and is perfectly safe to use on grain until it has attained a height of four to six inches.

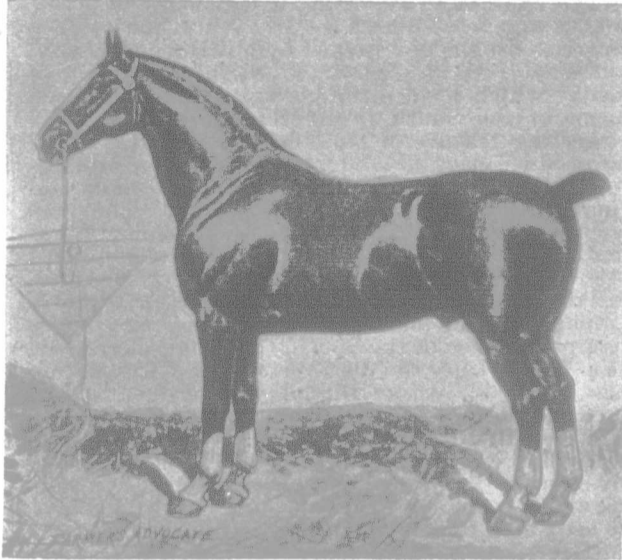
Should Grain be Sown by Drill or Broadcast Seeder on Backsetting?—Where backsetting has been well done, and especially where disk or spade harrows have been used after backsetting, and the soil permits, a drill should be used in preference to a broadcast seeder. There are cases where drills will not work on backsetting, and only broadcasting can be done, but the instances are rare. Winds cannot injure backsetting, so danger need not be apprehended from that quarter, but in broadcasting a good deal of the seed will remain uncovered, and more of it will be too near the surface to be safe from injury by the hot weather of July and August.

ANGUS MACKAY, Supt.
Indian Head Experimental Farm.

Bees in Manitoba.

To the Editor FARMER'S ADVOCATE:

To bee or not to bee? That is a question that should be decided about this time of the year. Doubtless some will decide in the affirmative this spring, to whom these notes may prove helpful; perhaps they will influence others to decide in the same way, for whatever is said here is intended for the man who would like to start an apiary, but does not know how. A good idea would be to get, at once, some good book, such as "A. B. C. of Bee Culture," or "Cook's Manual," and read up something on the subject in advance. Such a book is always useful and will continue to be consulted by the beekeeper even after years of experience.



HACKNEY STALLION, ROSADOR 4964.

THE PROPERTY OF MR. F. W. BUTTLE, RILLINGTON, YORKSHIRE. WINNER OF CHAMPION PRIZE 1899 AND 1897, AND RESERVE FOR CHAMPION 1898, LONDON HACKNEY SHOW.

The best time to purchase bees is in the spring, say about the middle of May. Those who have stock to sell should know it by that time and be advertising. It is possible, too, by that time to tell the colony that is worth having from the one that is not. Having secured a hive of bees, place it in a position where it will be sheltered from the winds, especially from west and north winds, but where it will get the morning sun. It might even be made to face the east, for bees like to be out early; and should be raised two or three inches from the ground. Have a board or shingle sloping up to the alighting-board at the door of the hive for the convenience of too heavy laden bees, who often miss the door and drop in the grass. Low trees or shrubbery make the most desirable shelter, as, if there are very tall trees about, the bees, when swarming, are apt to cluster in them and cannot be secured. If no such shelter is at hand a close board fence may serve the object, but an apiary on the open prairie, without any shelter, would scarcely prove a success.

A correspondent asks "How to make a bee-hive suitable for Manitoba?" With a hammer and nails is a good way, and, of course, a saw to cut the boards. Any of the hives in general use in Canada are suitable for Manitoba, and as one purchasing a colony of bees gets the hive and combs with it, this will serve as a model by which any man or boy handy with tools may make his own. For the beginner, who should work for extracted honey, the "Jones" hive is good enough. This is a box 15 inches deep, 12 inches wide and 18 inches long, inside measurements; holding, when full, twelve combs, which are placed crosswise. Above this is placed, to serve as an air chamber in summer, a super or second story, 4 or 4½ inches deep, the same size as the hive. The cover is water-tight and made to fit over the hive. If comb honey is wanted such a hive as the "Langstroth" would be preferred. The body is much smaller than that of the Jones, and is intended to serve only as a brood chamber. When this is full a super is put on, in which the sections are placed. The Jones hive is not so suitable for comb honey production, as the body of it is so large—that having to be filled before the bees will work on the sections in the super. These hives are made of inch lumber, dressed on both sides, and may be had "in the flat," ready to nail together, from any dealer in beekeepers' supplies.

When purchasing a hive of bees, four or five pounds of comb foundation, of a size suitable for the hive, should also be procured; also a couple of dozen comb frames, unless it is preferred to make them. Then a veil and gloves will be necessary, and a smoker may also be found to be useful. Of course empty hives must be provided and kept ready to receive swarms. The hive, when first obtained, will probably not contain more than eight or nine combs with a division board behind them. These should be well covered with bees, and more or less filled with brood. If the bees cover all the combs and the brood is hatching, put in frames fitted with comb foundation till the hive is full, moving the division board further back each time to admit them, and finally removing it. These remarks apply to Jones hives. About this time a number of queen cells will be found on the combs. As these thimble-like structures reach the sealing-up stage prepare for a swarm. Have a hive ready with three or four frames with comb foundation in them. By this

time, too, every neighbor who used to keep bees twenty or thirty years ago will be on hand with some device for making the swarm alight or come back to the hive—tin pans, spray pumps, and even shotguns will be recommended. But about as good a thing to do as any is to sit quietly down and watch them till they cluster, which they will do after a few minutes, most likely on the branch of some tree near by. The branch should then be cut as quickly and quietly as possible and taken to the hive. Care must be taken not to shake the bees off, and if that can't be avoided the branch must be held in its place till they cluster again, when it may be carried down. The swarm may be shaken into the hive and the cover put quickly on, but the better way is to lay it on a board at the front of the hive. The bees will very soon find the door and run in. As one gets acquainted with the work he may prefer swarming his bees artificially, which can be done by following the directions contained in the books mentioned above. The next thing to look out for is after-swarms. One, two, or even three may be thrown off, till it begins to look as if the old stock had gone crazy. Even one of these is not desirable unless swarming has begun very early. They seldom attain a good wintering strength, but usually have to be doubled up and fed in the fall. At the same time they are a ruinous drain on the strength of the parent hive. So a good way to treat them is to capture the swarm and lay it at the front of an empty hive; then lay yourself alongside and keep your eyes open for the queen. When you get a sight of her capture her and end her reign right there. In a short while the swarm will discover that it is not so well equipped for housekeeping as it thought, and promptly return to the parent hive. Let the bees increase as rapidly as they can, but keep down the number of hives. A well-filled hive, in the honey season, is profitable, but two half-filled hives are a dead loss. Let no beginner forget that, and they are all apt to do so. J. J. GUNN.
Red River Valley.

Root Growing.

Select a piece of land as near the stables or yard as possible for convenience sake, so the roots can be pulled and thrown over to all stock in months of August and September when pasture is scarce. Plow the land in fall as early as possible, and harrow well to start weeds; then, after all fall plowing is done, draw out and spread evenly a good coat of well-rotted manure. The rough surface after manure is on ground causes the snow to lie all winter, giving plenty of moisture to start roots early. As soon as snow is all gone in spring and frost out of the manure and ground, give it a good harrowing, so as to break the manure all up fine, and then plow as soon as you can get down about ten inches. By plowing deep the first plowing, you get the manure down so the scuffler don't drag any of it. Harrow down fine immediately after plowing, leave a few days, and then harrow again. You will find when you come to single the plants the benefit of having the ground real fine. You will also notice that the plants come ahead quicker than where it is lumpy ground. If many weeds are coming, plow again about four or five inches, and harrow well again; then roll and drill up and sow before the ground dries out; don't make drills too high; about thirty-two inches apart I generally sow mine. Don't sow all at once, unless you have plenty of help to weed and thin them. Don't put off until all other seeding is done; rather leave your oats or barley a day and sow your roots. I sowed mine last spring as early as May 2nd; then some on May 9th; the earliest were the best. Some prefer sowing them on the level. I don't; they are far easier to scuffle and also to thin. Sown on the level they are much harder to get up in the fall. Thin before the plants get too big. Turnips, 12 inches apart; mangels, 15 inches—mangels won't stand crowding.

Turnips are certainly a necessity and are very cheap feed. My young calves and yearlings scarcely ever drink water, and they are fat and with slick hides. Try some mangels for the milking cows, and field carrots for the horses and young colts.

Langford Municipality, Man. J. B. GOVENLOCK.

[NOTE.—Unless the land had previously been deeply worked, it would not be safe to plow as deep in the spring as Mr. Govenlock does, as it would turn up a lot of raw subsoil. If this were done in the fall the results might be safer. We think frequent surface cultivation with harrow or cultivator would be better than the second plowing recommended. In most soils a second (shallow) plowing in newly-turned land would be an impossibility, especially with manure turned under in the first plowing. In most districts level cultivation is considered best, as it is not so favorable for the evaporation of soil moisture—a most important consideration in this western country.]

The results obtained by Mr. Govenlock have been most satisfactory, his field of turnips being the best as to yield and quality of roots the writer came across last fall.—ED. F. A.]

The winter is prolonging its stay, considerable quantities of snow having recently fallen in nearly all the Provinces of the Dominion, so that in most sections farmers in the East are enjoying the use of good sleighing in the last days of March and are well pleased to have their crops of wheat and clover protected by a blanket of the beautiful, which is so much more favorable than to have them exposed to the cold winds and alternate freezings and thawings which usually prevail at this season.

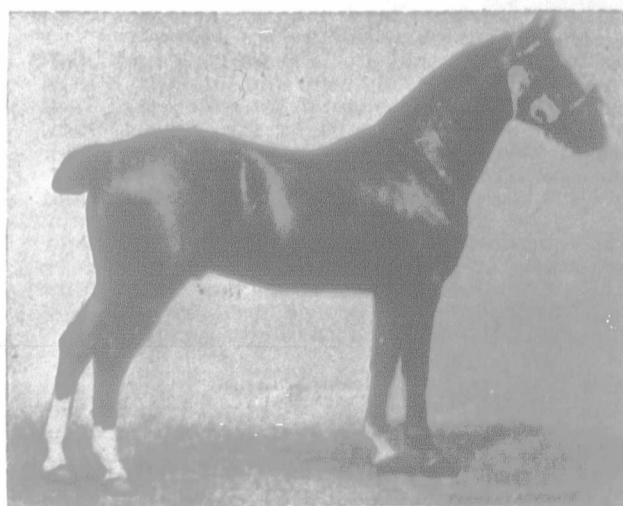
Our Country Schools.

On driving through this vast country, one cannot but notice the deplorable condition of our country schools. There are so many reasons why our schoolrooms and school grounds should be beautiful that one wonders why there is an unpainted schoolhouse, a bare wall or untidy playground in our land. Have we not interest enough in the children to try and improve their surroundings, where they have to spend six hours a day, and five days in the week, the early part of their life? Expense, in these days of cheap material, cannot be brought forward as an excuse.

The love of beauty cannot be inculcated in children too early. First impressions are the most lasting, and it is surprising how early in life a child will discriminate between the beautiful and the commonplace. Many of the children come from homes where they have none of the beautiful surroundings which mean so much in developing the aesthetic nature of the child. It is the duty of the district to see that the children have such surroundings. Think of the refining, softening, inspiring influence beautiful surroundings must have on the children. Tennyson says, "I am a part of all I have met."

Now, I will say something about the school grounds. The school playground is as vital a necessity as the schoolroom. A pleasant, shady space for rest, story-telling, and quiet games—room for ball games, racing, etc. But here is what we generally find: An acre or half an acre of the roughest land to be found, the schoolhouse as near the center as possible, no fence, no shade trees, no playground, nothing beautiful. Instead of this, there should be two acres of land, with the school setting well back, so there could be a good playground in front. As I said before, the school playground is a necessity. Work and play, two kinds of muscular exercise, are both important. "All work and no play makes Jack a dull boy." A person will teach a very short time before he will see how much more readily pupils go to work after having a good game of ball or other exercise than when they have been sitting around the schoolroom during recess. There is a great training in play that children cannot get from books. The older boys and girls must understand how to respect the weak, must know the meaning of honor and fairness, law and order.

It is necessary to have the grounds large enough so that they can be fenced, trees planted, and still not interfere with the playground. So I would advise all school districts which haven't at least two acres to secure as much as once, while land is not so valuable as it will be in a few years. Then put a good fence around the school lot. The teacher will see to the tree-planting. Just give the teachers a chance and you will see how anxious they are to improve the opportunity. Then you are ready for planting trees and flowers and otherwise decorating the school premises, in which you will find the teacher and children only too willing to help. "But we have no flower-beds," you say. This is where the teacher and children will come in. All teachers know that there is nothing will add to or take from the interest and joy of the children in their school life so much as the beauty or "barrenness" of their surroundings. Make the school grounds beautiful. Do not let your school have that forsaken appearance so often seen in passing the school plots of our country. Surely Manitoba's boys and girls deserve better at our hands than to be compelled to pass those formative years of their lives in sightless surroundings. All their future will be affected by the impressions made on them



HACKNEY STALLION, ROYAL DANEGELT 5785.

THE PROPERTY OF SIR WALTER GILBEY, BART., EISENHAM HALL, ESSEX. CHAMPION IN 1896, AND RESERVE FOR CHAMPION IN 1899, LONDON HACKNEY SHOW.

during their childhood days. See to it, then, that these impressions are of a kind which will produce courageous, loving, sympathetic men and women.

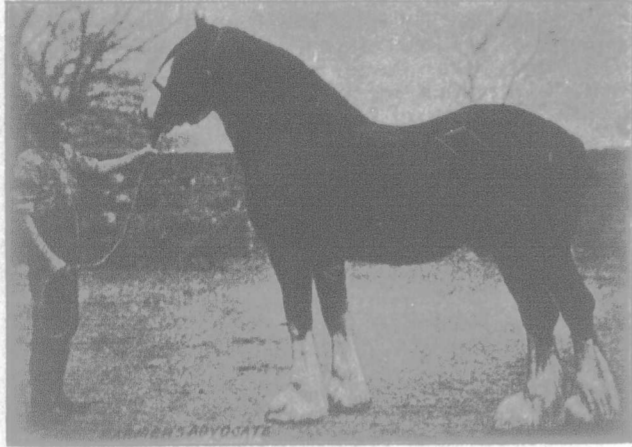
It is a very easy matter to fill a bed with mould from neighboring fallow and in it cultivate our wild plants and other garden flowers; and how many lessons can be taught from these flowers, in addition to the never-ceasing influence which the presence of their beautiful forms would have. Children would thus learn to love nature, and this love would become a vital element in the development of pure, high character.

Southern Manitoba. "AN OLD TEACHER."

Our Scottish Letter.

THE BULL SALES AND STALLION SHOWS.

During the past few weeks the principal interest of stock owners in this country has been concentrated on the bull sales and the spring horse shows in the South. The principal centers of the bull sales in Scotland are Perth, Aberdeen, Inverness, Oban, and Castle Douglas. The Perth, Aberdeen and Inverness sales are chiefly confined to Shorthorn and Aberdeen-Angus cattle. Oban is the head center of the Highland breed, and Castle Douglas is, of course, the capital of Galloway. The Castle



CLYDESDALE STALLION, "HIAWATHA."

PROPERTY OF MR. JOHN POLLOCK, PAPER MILL FARM, CATHCART, N. B. WINNER OF CHAMPIONSHIP, GLASGOW, 1899.

Douglas sale has not taken place at time of writing, but all the other sales are over, and stock breeders in this country have more than good reason to be satisfied with the result. The first important sale was that of Aberdeen-Angus bulls at Perth, conducted by the great firm of Macdonald, Fraser & Co. (Ltd.), at which 256 bulls made an average of £31 16s. 4d., the best average made at any sale since 1884, which is equivalent to saying the best average ever made at one of the Perth bull sales. On the following day breeders were engaged at Aberdeen, where 226 bulls made an average of £25 14s. 8d. At a much smaller sale, held further north, at Turriff, 15 bulls of the same breed made £29 8s. each. Some extraordinary prices were made for bulls at the Perth sale, and the judges and the public were by no means at one in regard to the value of the animals. Sir George MacPherson Grant had the remarkable average of £38 17s. 3d. for 8 bulls, neither of which was in the first four in the prize list. He got the highest price of the sale (190 guineas) for a bull named Rosador (15990), the purchaser of which was the new laird of Ardross in Ross-shire; and the scarcely less notable price of 160 guineas for another bull called Kilgraston (15610), placed sixth by the judges, and the purchaser of which was Mr. Whitburn, all the way from Kent, in the south of England. Still another Ballindalloch bull made 100 guineas, and, as we have said, the average for 8 was the extraordinary figure of well-nigh £90. A comparatively new breeder, Mr. Willsber, of Pitpointee, in Forfarshire, got 150 guineas for his fourth prize bull Hengist of Pitpointee; and Lord Strathmore, whose herd has acquired quite an enviable distinction within recent years, and last year topped the sale, got 100 guineas for a bull named Meridian (15473), who was unplaced by the judges. The first prize bull in the older class, Jack the Rover of Norlich, bred by Mr. Robert Cran, Norlich, Aberdeenshire, was sold to Mr. Greenfield, from Essex, for 105 guineas. The Aberdeen-Angus breed has fairly topped the bull sales this year, and there can be no doubt that breeders in this country are in much better heart than they have been for some time. At the Aberdeen sale such high prices were not realized, but the sale was wonderfully steady throughout, as is evidenced by the large number of bulls sold and the high average which they made.

One week later Shorthorn sales at Perth and Aberdeen took place, and a splendid trade was again the rule of the day; nevertheless, the averages of the "Doddies" were not reached. At Perth, Messrs. Macdonald, Fraser & Co. sold 147 bulls at an average of £27 17s. 9d., and at Aberdeen Mr. Moir sold 179 bulls at an average of £24 13s. 2d. The highest price for a Shorthorn was given by Mr. Donald McLennan, Buenos Ayres, for the first prize Lovat bull at Perth. His figure was 155 guineas. Lord Lovat's herd took the same place amongst the Shorthorns as Sir George Macpherson Grant took amongst the Aberdeen-Angus, his lordship's average for 1 bull being £73 10s. A young breeder named Mr. John Grainger, from Pitcur, Coupar Angus, had also a good average, making £65 12s. 6d. each for 2 bulls. Trade was exceedingly good for Shorthorns, but not equal to the demand for Aberdeen-Angus. At the Aberdeen sale the highest average was made by Mr. Candiac, of Woodend (a near relative, I believe, of the late Amos Cruickshank), who got £51 apiece for two well-bred bulls. Otherwise the sale was very steady, and one good feature of the whole season in

regard to those great beef breeds has been the uniform quality of the stock. There are fewer weeds offered amongst bulls than was the case on some previous occasions. The Inverness sale takes in both breeds on one day, and here also the Polled bulls had the better of the Shorthorns, the average for 79 of the blacks being £27 2s. 3d., and for 68 of Shorthorns £24 13s. 7d. Another sale at which good prices are usually realized is held at Penrith, where Mr. John Thornton sold 34 Shorthorn bulls at an average of £32 11s. These are more of the English type than the bulls sold in the North, and this average shows that there is still a good market for the Booth and Bates combination. The same fact is brought out by the results at the Birmingham sale, where Mr. McLennan again paid the top price (this time 200 guineas) for a bull named Extinction, bred by Mr. Atkinson, of Milnthorpe, Westmoreland. Another high price was 140 guineas, paid for Lavender Lad, also by a foreign buyer. The lowest price at this sale was 40 guineas—a sufficient indication of high quality of the bulls sold.

At Oban sale Highlanders had their innings, and although the sale was lively and the demand steady, there was a lack of the sensational bidding which characterized the sale of 1898. Still, an average of £25 for two-year-olds and £29 for stirks was very good business. One breeder, Mr. Wm. McGillivray, Garbole, Inverness-shire, got the splendid price of £160 for two bull stirks, one making £79 and the other £81. These were respectively first and second in their class, a cheaper bull taking first prize. In view of these results, Galloway breeders are entitled to anticipate lively trade at their bull sale on the 16th inst. They always come a little behind the others, but the remarkable success which has attended the use of Galloway bulls in the West of Ireland under the auspices of Congested District Boards is certain this year to give a filling to them which will be altogether in favor of breeders in Scotland. There can be no doubt that a change is gradually coming over those who cater for the fat market. Once a day it was the breeds that would fatten quickest; now the object is being kept in view, and butchers insist on having lean meat, and breeds like the Galloway and the Highlander will certainly be in greater favor than they were at one time. It is remarkable how many English feeders, especially those who have large parks, favor those two breeds, and the success of Galloway bulls for crossing on the common cattle of the West of Ireland has received acknowledgment in parliamentary papers. Altogether, the cattle-breeding industry is in a much more wholesome condition than it has been for some years.

THE SHIRE AND HACKNEY SHOWS.

In my last letter I gave some particulars regarding a Glasgow stallion show of Clydesdales. During the past two weeks, London Shire horse and Hackney horse shows have been held, and bear renewed testimony to activity prevailing amongst horse breeders generally. The Shire Horse Show was an unqualified success, and it is impossible to withhold a mead of admiration from the Shire Horse Society of the undoubted results which have followed its efforts. When it began operations in 1880 it had an unsound breed, clearly attested by the results of veterinary examination at the spring show. It faced the situation manfully, insisted on rigid veterinary inspection, and the result is to-day seen in the great improvement which has taken place in the breed in this respect. At the same time, there is still great headway to be made before it can be pronounced by a long way as sound in feet and limbs as the Clydesdale. The champion horse of this year is again Buscot Harold, which last year secured the same honors; and the champion mare is the well-known Dunsmore Gloaming, also a daughter of renowned Harold, the senior stud horse at Colwich, in Derbyshire.

This week the Hackney show is engaging the attention of a large number of Scottish breeders, and the final results have proved highly satisfactory to those who have been pushing the breeding of Hackneys in this country. One of the most spirited supporters of the breed is Mr. Alex. Morton, of Gowankbank, Darvel. He showed four animals in London, and took first prize with his brood mare Cicely (5738), which in 1893 was the champion of the show; second prize in the aged stallion class with a very handsome horse of his own breeding, named Glengolan (5337); fourth in the selling class with another horse of his own breeding, named Duke of Denmark; and fourth in class for three-year-old fillies with a beautiful mare named Harmony, also bred by himself, and, like Glengolan, got by his stud horse Donald Grant (1473). Another Scotch-bred Hackney named Gold Flash, now owned by Sir Gilbert Greenall, Bart., and bred by Mr. Wm. Scott, at Carlisle, in Lanarkshire, gained first prize in the four-year-old class. She is a beauty, and last year, when owned by Mr. Morton, stood second to another Scotch filly, named Vivandiere, bred and owned by the President of the Hackney Horse Society for this year, Mr. Charles E. Galbraith, Terregleston, Dumfries. On this occasion the tables have been turned, and Gold Flash was placed first and Vivandiere second. Another Scotch breeder who has done very well this year is Mr. J. E. Stoddart, of Aid Calder, who on his first appearance as an exhibitor at the London show gained fourth prize in the two-year-old class with a lovely filly of his own breeding, named Lady Patricia. Mr. David Mitchell, of Millfield, Polmont, has also taken a number of tickets with animals bred by himself, and Mr. Gal-

braith, besides winning second with Vivandiere, took fourth in the largest class of brood mares with Queen of the South, and first in the class for barren mares with Danish Lady. Mr. Alex. Gemmell, Ayr, who is very fond of a real good Hackney, was also amongst those whose stock was named at this show. The male championship was a stand-up fight between Mr. Buttle's Rosador, which in 1897 was champion of the show and in 1898 reserve champion, and Sir Walter Gilbey's Royal Danegelt, which in 1897 was reserve champion and in 1898 champion. This year three judges reverted to the 1897 form, and placed Rosador first and Royal Danegelt second. The female championship went to Mr. Waterhouse for a magnificent mare of the harness type, named Queen of the South, own sister to Mr. Galbraith's Queen of the West, and the reserve champion was a mare which up to a few months ago was owned by Mr. Waterhouse—Oily Surprise. She is now owned by Mr. Harry Livesey, Rotherfield, Sussex, who also on the afternoon of the day which decided the championship purchased Queen of the South from Mr. Waterhouse. The interesting feature of this show was what is called the produce class, in which groups of three animals got by the same sire, in two divisions, of male and female, compete for champion honors. The winning sire for stallions was Mr. Usher's horse Gentleman John (3624), Garton Duke of Connaught (3009) standing second, and Ganymede (2706) third. For three mares got by one sire, Garton Duke of Connaught won hands down. He was sire of the champion Queen of the South, the junior champion, Miss Terry, and the first prize mare in another class, named Garton Birthday. Second to him stood Rosador, with three young daughters; and third Goldfinder 6th (1791), the sire of Gold Flash and other good animals. Gold Finder 6th was picked up by Mr. Morton at an auction sale in London some years ago for something like 100 guineas. He used him for two or three seasons in Scotland, in which he got the best Hackney stock we have ever had here, and then sold him to Sir Gilbert Greenall for 3,000 guineas. He is undoubtedly one of the best breeding Hackney sires in England, but this year the champion sire is without question Garton Duke of Connaught. "SCOTLAND YET."

A Resolution Against Mixing Grain.

At a largely-attended meeting of the Winnipeg Grain and Produce Exchange, held recently, the following resolution was unanimously adopted: "Whereas the evils resulting from the mixing of Manitoba grain at the Fort William and terminal elevators are most injuriously affecting the reputation of Manitoba grain in the European markets, and whereas the Winnipeg Grain and Produce Exchange is most desirous of restoring the reputation of Manitoba grain to its former high standing, be it resolved that this Exchange hereby expresses its positive conviction that no mixing of grain should be permitted in terminal elevators, and also that no mixing of grain should be permitted in a cargo shipment unless the inspection certificate issued therefor shall have written across the face a statement defining the various grades entering into its composition. And, further, be it resolved that this Exchange memorialize the Department of Inland Revenue to secure the enactment of such legislation as may be necessary for the carrying into effect and enforcement of the principle above enunciated." This is exactly what the farmers have contended for for a long time, but it seems strange that such a resolution should be unanimously carried by the very parties who were supposed to be making the "pull" out of it. There is no doubt but that the mixing business has been much overdone this year, together with the lower standard struck for No. 1 hard, has greatly reduced the value of Manitoba wheat, our No. 1 hard wheat not bringing within five cents a bushel of Duluth No. 1 Northern.



THE WAY THEY DO IT IN SCOTLAND.

CLYDESDALE STALLION, OWNED BY ALEXANDER GALBRAITH, JANESVILLE, WISCONSIN.

Appointment of Horticulturist at the Indian Head Experimental Farm.

We understand that Mr. D. G. Mackay has been appointed Horticulturist on the Indian Head Experimental Farm. Mr. Mackay is a son of the Superintendent, and has for a number of years been assisting his father in the Horticultural Department and in the office work, and should therefore be particularly well qualified to render efficient service as a member of the staff.

The Brandon Experimental Farm Visited.

BY WM. LAUGHLAND, HARTNEY.

The following is a portion of an address delivered by William Laughland, of Hartney, before the Hartney Farmers' Institute, giving an account of his visit to the Brandon Experimental Farm while attending the Central Farmers' Institute last summer. We regret space will not permit of the reproduction of the whole paper. Graphically describing the drive from Brandon City to the Farm, he says:

We entered the Garden of Manitoba, and there scattered over the grounds in holiday attire and away from toil and care were thousands of the bone and sinew of the land, viewing the work of a master hand. It was a charming day, the finest of the year, and the scene a pretty one. Standing on the high ground, near the manager's residence, and looking down on the trees and shrubs and flowers on lane, lawn, and hedgerow, with the willow-fringed winding Assiniboine, lined with the oak, the ash and the old elm tree, glancing in the sunlight as it flowed peacefully along the valley, past wheat fields waving in the summer breeze, and past the city, built on the terraced hillside, the Wheat City of the Plains.

The Farm has now been a sufficient length of time in existence to test it for the purpose for which it was established, and it may be asked, Has it accomplished the ends, and is it worth to the country what it has cost? I have kept a weather-eye on it from the start, and I have no hesitation in saying it has been worth to the country ten times its cost, and has had a powerful leavening influence for good on the farming operations of the Province.

We judge a good deal by comparisons, and in looking at the Farm aside from its special purpose, I am led to compare it with what I have seen in

"The land of brown heath and shaggy wood,
The land of the mountain and the flood."

And I think of the beautiful landscape-gardening at Castle Kennedy, away down by the sounding sea, where the fields are as level as the prairie, and after growing grain for generations are more fertile than the virgin soil of Manitoba. And I think of the flower-garden at Drumlanrig and the wonderful display of color that is seen from the Castle Terrace. Fine taste and skill is shown in grouping, blending, harmonizing, and a picture of marvelous beauty is produced. It is a princely mansion on a commanding position amidst scenes of rare sylvan beauty. Near and distant views are charming and enchanting, and to a lover of nature it is a fairyland, full of romantic and picturesque scenery, and is rich in legend, song and story, and settled with a fine people.

And I think of the magnificent collection of evergreens at Drummond Castle, trimmed in most artistic and fantastic shapes, and set in acres of turf as smooth and level as a billiard-table, and as green as emerald. Nestling in a highland glen, and surrounded by a deer park containing forest giants that were patriarchs when Cartier and Champlain were exploring the mysteries of this great western land, and encircled by a cordon of Scotia's proud Bens, whose broad shoulders and cloud-lapped crests shelter this lovely spot from every chilling blast. But the comparison is—

"As moonlight unto sunlight,
Or water unto wine."

When a location for an experimental farm was being looked for I tried to impress upon Mr. Daly the importance of selecting a site on the level, exposed to the full force of winter's blast and summer's sun, so that the tests would be conducted on soil and under climatic conditions similar to what is experienced by the majority of farmers. The soil on the farm varies greatly: in this case an advantage, on a wheat farm an objection. In the valley the soil is a heavy alluvial drift, and under high cultivation, in a moist season, will grow rank, soft straw, liable to lodge and rust, and from its situation and surroundings, texture and color, it will catch the late spring and early fall frost. The soil on the hillside is poor and thin, with a bad exposure, and much of it would not grow a profitable crop of grain, and, like all the land in this district which faces the south, it is light. Land lying to the north is heavier than land lying to the south. I venture to say there is more good wheat-growing land on a quarter-section around me than there is on the whole Experimental Farm.

It is a disappointment to find the shelter belts as windbreaks are not proving as satisfactory as anticipated. On the Farm they have the vexing drawback of drifting soil to contend with. When Mr. Bedford went there it was one of the dirtiest farms in the district. I will not say he has made it to blossom as a rose, but I can say he has made it a model of cleanness, and, with surface and under-draining and good management, has brought it to a high state of fertility.

The first sight to attract our attention was a crowd watching the crack plowmen of the Province, with fine, steady teams, well groomed and harnessed and decked with ribbons, engaged in a contest for the championship. As they were all prize plowmen, it is needless to say the work done was very fine and the furrows as straight as an arrow. But there is no rose without a thorn; across the land ran a streak of sticky, gumbo soil, in which no plow would clean. Plowing is the pleasantest work on the farm, but when a man gets his temper ruffled with a plow that won't scour, his feelings can be imagined better than described.

From my home to Brandon I passed through forty miles of the choice wheat lands of Western Manitoba, and, speaking in a general way, I saw no

crop there that would compare with the test plots on the Farm for yield, vigor and freedom from weeds. In sending my crop reports to the Department of Agriculture, when I would think of Mr. Bedford's yields, I often felt as if an apology was needed for the smallness of the figures from this fine district. It will be remembered that the early part of the season was very dry and the rainfall insufficient for the growing crop. At the time of my visit the rainfall had been no greater on the Farm than elsewhere, yet the test plots did not seem to have suffered much, or any, from the lack of moisture. Mr. Bedford, this year, on twenty different plots of wheat with different varieties of seed, twenty of oats, twenty of barley, and ten of peas, had an average yield of thirty-five bushels of wheat to the acre, one hundred and four bushels of oats, sixty bushels of barley, and fifty-one of peas.

There is something wrong in the "State of Denmark" when one man can produce these extraordinary yields in a season like this on seventy different fields. What is wrong? Is it in the men or their methods?

It is a Government farm, but the soil is no better than the average, and the manager, so far as I can judge, has no means or system that is beyond the reach of the average farmer.

The oats were very luxuriant—too heavy in some cases, for part of some of the plots lay down under the first rain storm. In the small test plots of wheat which were just two widths of the drill on the 11th July the grain in the two drill marks in the center of the plot from end to end stood two inches higher and was evenly and fully headed out and several days earlier than the rest of the plot, for many of the heads had not even left the shot blade. The pea plots were the most promising I have ever seen.

The cereals are grown without manure and no cereal crop is grown two years in succession on the same land, the test being on summer-fallow. There is no volunteer grain, and a little hand weeding is done to keep the seed pure and clean. I was much interested in the grasses. The Brome, the native, and the bearded rye grass were the best. I noticed an encouraging feature in the *Bromus inermis*. Wherever a little seed had dropped around the building it had taken a very kindly hold and was making itself quite at home and looked as if it had come to stay. While spending a holiday with Kenneth Melvor, of Virden, the introducer of *Agropyrum tenerum* (native rye grass), we paid a visit to the Farm for the purpose of comparing this grass with the others in Mr. Bedford's test, and it was a treat to hear this far-seeing son of the mist, from the land of the heather, describe in his melodious Doric where he found the first few spears of it, how he tenderly nursed the younglings and trained them up in the way they should grow until they multiplied and produced seed sufficient to supply the wants of the Province and furnish a supply for the experiment stations in the Western States.

He is a friend to his country who can make two blades of grass grow where one grew before, but I trust something better than either *Bromus* or *Agropyrum* will yet be introduced, for one of our wants is a good grass that will give an average yield of two tons of palatable hay to the acre. There is a large list of grasses to select from, and some of them will bear further testing. A variety of Brome and these two rye grasses were growing here when this district was settled, but, like the flowers that once gemmed the prairie, they have almost disappeared. Side by side with my farm is a section of unbroken prairie, and I have had a good opportunity of watching the disastrous consequences of burning. The fine, useful pasture grasses that were growing on it in 1882 are nearly killed out and their place is usurped with useless sage and sunflowers. Spear grass and red-top—that stock won't eat—are about the only seeding grasses left. The herbage is quite changed.

The clovers were of special interest. Alsike and one of the reds were good crops. Between Brandon and the Farm there is a sight to make a farmer rejoice, and it atones in a measure for the prescribed weeds I saw growing within the city limits. I refer to the white clover, and if a wizard would arise and show us how to make clover grow on our wheat fields as luxuriantly as it is growing there he would be the greatest benefactor the Province has ever had. Clover is gradually creeping towards the Northwest, and the organic change is going on in the soil to fit it for the growth of clovers, but the process is so slow, and I am under the impression if Nature were assisted in a scientific way that before a quarter of a century elapses one of the clovers will be the great renovator of the wheat fields of the Northwest, and I think Mr. Bedford and Mr. Mackay should persistently follow out the experiments and make investigations with that end in view. I may be blamed for making suggestions that is no business of mine—the farm was put there to make tests for the farmers.

I was disappointed with the appearance of the Russian willows, but delighted with the spruce. Unless at Mr. Wenman's, I have not seen finer. I admired the sweet little Acer girmala, whose leaf is more beautiful than the emblem of Canada, and was amazed at the rhubarb. Much of it was as thick as some of the fence posts in this district. In the fruit garden the raspberries, in common with the rest of the Province, had succumbed to the mildness of the winter. I was pleased with the fine hedges of fragrant, feathery artemisia and caragana, with its pretty pea-green leaf and profusion of pale yellow blossom, and I liked the little spark-

ling, trickling stream of clear spring water that crosses the Farm near the Lovers' Walk. 'Tis but a little tiny stream, but I know men who would give half their farms to possess it.

The lawn in front of Mr. Bedford's house was being watered with a hose, and I thought of the trouble there is to get a nice lawn in this country. It was receiving every care, yet it was brown and bare, and looked as if it were going into the sere and yellow leaf. While standing there I saw again the verdant lawns of his own beautiful Devonshire, that are watered only by the dews and the gentle rain from heaven.

"I know a bank whereon the wild thyme grows,
Where cowslips and the nodding violets blow."

The apparatus for taking the meteorological observations for the Dominion Government excited my curiosity, as I am doing and was doing part of this work for years before the Farm was in existence. It may be of interest to state how the precipitation at Hartney compares with the Experimental Farms. The monthly records of the rainfall and snowfall vary, but the totals for the year almost correspond. The instruments for measuring the rainfall are very simple, and the measurement is taken to the hundredth part of an inch. There is no pay for the work. On visiting the Farm, some of Mr. Bedford's assistants have always courteously offered their services. Mr. Thornton and Mr. Brown I have found very obliging. At some of the local shows where Mr. Brown has acted as judge, his awards have given much satisfaction. Going over the Farm, I took the liberty of pointing out to my guide one or two things that I thought should be in better shape. He said, "Well, they were crowded with work and were working short-handed." It is a pitiful state of matters if Mr. Bedford is under the necessity of working short-handed in summer when labor is abundant and cheap, and I respectfully suggest, if a larger grant is needed, that the money be forthcoming. Surely we do not need to go begging for it.

I wish to say that more attention should now be paid to the ornamental on the Farm. The experimental tests must always stand first and foremost, but some of these Mr. Bedford has demonstrated to our entire satisfaction, and they may be dropped to a certain extent, and I think it would be advisable also to give up the stock-breeding. That branch may be safely left in the hands of the capable men who are making a specialty of the different breeds.

Pruning Trees.

George W. Strand, Secretary of the Minnesota Forestry Association, gives the following hints:

Pruning should be avoided as much as possible, and practiced only enough to secure the desired form for the purpose intended. Better leave to nature entirely unless we have an idea from the start as to the end we wish to accomplish. Yet a few general suggestions on the subject may not come amiss to those interested in tree growth.

If a little pinching-back is done while a tree is young, or removing of small branches which might develop undesirably, no great amount of pruning need be done at any one time. But where a large amount of wood is to be removed (unless it is dead, which may be removed at any time), the best time is while the tree is in a dormant state, preferably early in the spring, before the growth starts. June is also a good time to remove smaller amounts. If done at such times the wounds heal over with the least liability of permanent injury to the tree. Close and clean cutting should be the rule, and all larger wounds should be painted over with white lead to prevent decay. The hardier sorts may be safely pruned either in the fall, winter or spring—preferably when there is no frost in the wood, as it then splits and cracks more easily, and bad wounds are more liable to be made. Where limbs cross and rub against one another, it is generally best to remove one of them.

Some trees, like the soft maple, are very liable to split in the crutches or have limbs broken down by winds, etc., and hence need watching. Long limbs should be cut back, and where poor crutches are being formed some of the branches should be cut back, leaving the straightest, so as to form a leader.

In transplanting trees, all bruised or broken roots should be removed, and the top shortened in proportion to the loss of roots. In all cases, good roots should be looked to and prized far above tops.

In setting out street trees, small trees will generally make fully as fine trees as larger ones, but require more careful watching. The trees generally used for this purpose are long and slender, trimmed bare of branches, tops being cut off at a height of eight or ten feet from the root. But it is more desirable to have a few lower branches left on if possible and cut them back, to be trimmed off in a year or two, after the tree has a start. This gives a leaf surface, which materially aids in the starting of upper permanent branches. Street trees should be pruned a little for a number of years, to encourage growth in the desired direction.

Bees and Bee Supplies.

Mr. W. J. Robinson, Portage la Prairie, has for a number of years been paying a great deal of attention to beekeeping. He finds that they do particularly well in his district, as there is any quantity of white clover about and plenty of basswood trees along the river. In the last six years he has obtained no less than five tons of honey from a comparatively small apiary. Last fall he put fifty-five hives in the cellar, and expects to have them come out in good shape. He handles a full line of beekeepers' supplies.

Cultivation of New Land.

USE BEST SEED OBTAINABLE.

To the Editor FARMER'S ADVOCATE:

Allow me to join the number who have been praising you for the high standard of excellence the FARMER'S ADVOCATE has attained. The Christmas number was a gem to be treasured up for reference as well as for beauty. In regard to wheat culture, I believe there is no cast-iron rule for Manitoba, as I find that a system of preparing land in one district will not suit in another. For instance, scrub land wants to be plowed deep in breaking. As there is not much tough-rooted grass to rot in such land, it does not need backsetting before cropping. A spring-tooth harrow will work it into a good seed-bed. On prairie land, shallow plowing is the best, backsetting in the fall, but if the land is mixed, some patches of scrub and some of prairie, I would plow deep and disk the prairie portion of the land.

Farmers will do well to take the advice of Mr. Bedford and the editor of the ADVOCATE and not sow damp wheat. I did it a number of years ago, but will never do it again, if there is dry seed to be got. I would prefer frozen seed to damp seed every time, but sow the best seed if you have it, or the best you can get, as it will pay in the end. Then bluestone your seed, and don't run any risk of having smutty grain. Harrow the land so that there is a good seed-bed. Drill in the seed; if a man has the time he may drill both ways, using half the seed each way. There are some in this locality that do this, and it works well; but if you can only drill one way, I prefer to run the drill east and west, as the sun does not have as much effect on the roots of the grain. There may, however, be a difference of opinion about the way to drill; where soil drifts it may suit better to drill north and south. If the land is virgin soil and clean, I don't think there is much gained by harrowing after the drill, unless the ground was in such a condition that it could not be properly harrowed before sowing, in which case harrowing after might do good. I am speaking of new land; for summer-fallow or old cultivated land a stroke with a light harrow a few days after sowing will do good. I believe the *weedeers* spoken of in the ADVOCATE are better than a harrow for old land, as they don't take such a ruthless hold on the grain, and will kill the weeds better, leaving the land with a fine surface; like the shoe drill, they are a necessary implement on the farm in Manitoba.

I don't think there is any system of rotation that would be an ideal in all districts of the country; we take two or three crops of wheat, then a crop of oats or barley, then summer-fallow, but I don't consider it an ideal rotation by any means. We must get some system of seeding down with grass for a home supply of hay, and to rest the land instead of plowing all the time before we will have a good rotation.

J. H. McCLEURE.

Rockwood Municipality, Man.

Cultivation of New Land.

A WARNING AGAINST THE USE OF DAMP SEED.

To the Editor FARMER'S ADVOCATE:

As to our experience in the cultivating of wheat, would say that different sections require different methods. In breaking the virgin prairie we have found that to break as shallow as possible in the month of June and then to backset before harvest, about two inches deeper than it has been broken, has given us the best results. Land that has a very tough sod and a rank growth of wolf-willow should always be broken and backset, because we have found that the sod is too tough to work down to a good seed-bed. As far as our experience goes sod crops have not been a success. We did not get a paying crop until it had been well summer-fallowed, though on some heavy clay land that was stony, and had to be broken from three to four inches deep, good results have been obtained. That is to say, break it about four inches and disk harrow it until a good seed-bed has been obtained, then a fair crop may be expected; but I would not advise anyone to go in for a large amount until they had tried their land. When a settler is starting it is necessary that he has some crop, but to break the prairie and sow it as soon as broken does not give very good results. That has been our experience. We have found that it always pays to break and backset. On land that is reasonably heavy we have had the best results from fall plowing, harrowing well in the spring before the drill. On lighter land spring plowing has done, in some years, better than fall plowing. In regard to drilling, we have run our drills east and west as much as possible, as it is held that the wheat shades the ground sooner than when drilled north and south, thus keeping the land moist, though we have not noticed any difference in our north and south drilling. We harrow about four or five days after the drill, as then any small seeds that have started to grow get turned up to the hot sun and are killed. If the soil is liable to drift it is better to dispense with harrowing after the drill, as the drill leaves it rougher, and if it drifts any, will tend to cover the seed.

In the selection of seed it is always best to sow good seed. We have found that it may, to keep the very best for seed. Damp grain does not give the crop. Damp grain is very smutty, much worse than frozen grain. We sow the best seed we can get on old land and a bushel and three pecks of seed. We always bluestone our seed when we have it, and are troubled with smut. Good, clean wheat seed does not require to be dressed as heavily as grain that has

damaged by frost or has not been dressed in previous years.

As to the rotation of crops on a new farm, would say that three crops of wheat and one of oats would be about what good land would stand, as it takes about that time to work down the sod, and then summer-fallow. After that two of wheat and one of oats or barley would be about all it would stand. On light land we have found two crops enough. It pays to use all the manure on the land. We would not advise any new settler to burn his manure, as it will all be needed to put on the land as it gets older and worked down.

And now, Mr. Editor, as it is nearing spring-time it might be as well to give our experience in sowing damp wheat. We would advise every farmer to have great care in what they are doing if they are thinking of sowing wheat that is not good. We have noticed that it sprouts all right and starts to grow, and then when about the second blade it seems to die off. A neighbor of ours tried sowing wheat that had been damaged in the stack with the rain, with the result that he had to sow it over again, too late, of course. A frozen crop was the result.

W. P. MIDDLETON.

Elton Municipality, Man.

J. G. Barron's Stock Barn.

CEMENT FLOORS.

Late last fall, J. G. Barron, the well-known Shorthorn breeder and wheat farmer of Carberry Plains, completed, at a cost of about \$2,500, a fine new barn, an illustration of which is herewith presented, and a brief description follows. The barn is a frame structure 84x44, resting on a 2-ft. stone foundation, with ceiling 10 ft. high. Five rows of 6x6 in. girders run the full length of building, resting on 6x6 in. posts, which are set on stone-work. The studs and floor joists are 2x6 in., 2 ft. apart. Outer wall is double-boarded, with tar paper between. The loft floor is also double-boarded, with paper between; a good quality of British Columbia fir being used for outside sheathing. The purline posts are 20 ft. long, and a very high pitch on the roof. Seventy loads of sheaf oats were



BARN—80X44 FT., CEMENT FLOOR—BUILT LAST YEAR BY JOHN G. BARRON, ON HIS FARM AT CARBERRY, MANITOBA.

threshed into this loft last fall. It would probably hold 150 loads of straw.

There are six rows of cattle stalls across the barn, the doors opening into yard on south side. A feed passage 4 ft. wide runs between each two rows of cattle. Doors open into these passages from both north and south sides, and a feed chute 3x3, running about 16 ft. up into the loft, with several trapdoors and a sliding door across the bottom, permits of feed being thrown directly into passage.

The whole interior is floored with cement, which so far as could be seen was standing its first winter satisfactorily. The gutters are 14 in. wide and 6 deep. Mangers have no board bottom, the cement making the bottom. At top of front manger-planks, on the feed-passage side of the posts, are nailed water troughs, 6x6 in. inside measurement, made of clear pine, running full length of each row of stalls.

A 65-barrel water tank, incased in a tight-boarded chamber, stands in the loft, supplied with water from the well by a 12-ft. geared steel wheel. The water is carried along the stable in pipes, with a tap for each trough. The troughs are filled twice a day. Any feed that may remain in the troughs is easily removed with a little board the width of trough. No heat from the stable can get into the chamber surrounding the tank, and no protection was given it by covering with straw, yet frost had not caused the least trouble. After the cement floor had been laid, a 2-in. hole was drilled through it where the well-pipe was wanted, and then a sand point driven some 22 ft., and an inexhaustible supply of good water obtained.

The ventilation is in part the system advocated by Isaac Usher & Sons, of Greenston, Ont., who supplied the cement. Under the cement floor in each feed passage is laid a line of 6-in. tile, communicating through the stone foundation, with outside air. From this tile pipe, 2-in. iron pipes convey the fresh air into the mangers between each

two animals, thus furnishing fresh air just where needed. For the outlet of foul air, a space between two upper-floor joists is boarded over for about 4 ft. from the outer wall, and a small opening made, with a flap door to close at pleasure. The ventilators are opposite each other on both sides of stable, and appeared at time of our visit to be doing all the work, letting fresh air in from windward side and warm air out on the other side; but it was a windy day, and that may have made some difference. At all events, the stable was well ventilated, with temperature about 50°, and as there had been seventy head of cattle in the barn all winter and all were in nice, thrifty, healthy condition, one could safely pronounce the stable a success.

A noticeable feature of Mr. Barron's system of feeding is that no hay has been fed this winter, oat straw being the principal feed, with a small allowance of chopped oats and barley. At the time of our visit (middle of March) he was just beginning to feed cut-green oat sheaves. His breeding cows and young cattle and steers were all doing well, and the latter had been making good gain in weight since being tied up.

The Carberry plain is a good timothy district, and in utilizing the large quantity of manure made on the farm, Mr. Barron finds best results from the following plan: In winter the manure is drawn daily from stables and put up in a big heap near where wanted. By getting the pile heating in the fall and always piling the fresh manure right on top, it will continue to heat all winter and be well rotted by June. Old timothy sod is selected for putting on the manure. This is pastured till June and then top-dressed and plowed immediately. Last year a field so treated was sown to oats, resulting in a grand crop of green feed oats.

A track for hay fork or sheaf carrier is yet to be put in the barn. The windmill is expected to do all the pumping, straw-cutting and grain-crushing as soon as the appliances are in place. Half a mile from the buildings, in one of the permanent pasture fields, Mr. Barron has a small pumping windmill (8-ft. wheel, on steel tower) that cost, with pump and all complete, just \$50. A float is arranged on the water trough so that when full the power is cut off.

Experimental Sub-Stations.

To the Editor FARMER'S ADVOCATE:

DEAR SIR,—As to the establishment of sub-experimental stations in the N.-W. T., as outlined by Mr. C. W. Peterson in your issue of Dec. 20th, I may say that I have always looked upon the scheme as outlined as quite impractical, and the ground taken by Mr. Geo. Lang, of Indian Head, in January 5th issue, entirely invulnerable. I have some knowledge of experimental farm work, not only at Indian Head, but at the Guelph Agricultural College, and all goes to convince me that in the proposed scheme there are three essential conditions to success lacking:

1. A practical Department of Agriculture, thoroughly conversant with the question under discussion, and heartily anxious to make it a success agriculturally.

2. Provision for permanency or Government ownership of land.

3. A qualified, salaried superintendent of proposed experimental stations, whose entire time and talents will be at the disposal of the Government.

Indian Head District. W. R. MOTHERWELL.

Shall the Scrub Sire be Taxed?

To the Editor FARMER'S ADVOCATE:

SIR,—For one, I was decidedly pleased to read the wholesome editorial in your March 6th issue pointing out the injury that scrub sires are doing to the country, and the advantages that would result, particularly to the cattle industry, from the more general use of rightly-chosen pure-bred bulls. The only fault I have to find is that you did not make your article strong enough. You also estimated the difference in value between the well-bred and the ill-favored scrub steer too low at \$20 per head. In my judgment \$25 each would be well within the mark. Anyone who buys stockers to fatten knows to his sorrow the poor returns the scrub gives for the care and food given if he is unfortunate enough to include any of that sort in the bunch. Scrub bulls are a curse to the country, doing our reputation as a cattle-rearing land untold injury. Not only so, but they are a nuisance and a damage to every neighborhood that they infest. Their owners usually allow them to roam about the lanes and fields, tagging after cows and breaking into neighbors' fields, and in not a few instances injuring the stock of men who are trying to improve their herds by the use of good sires. The progeny of thoroughbred cows is thus often rendered of little value. There would, in such cases, be good grounds for legal action, and smart damages might be recovered, but most men prefer to suffer rather than stir up trouble with a neighbor. Now, the ADVOCATE is doing a grand educational work on this subject, and I would suggest that the Governments of the different Provinces supplement its efforts by imposing a special tax of from \$3 to \$5 per head on all scrub sires. This would discourage the shortsighted folly of keeping them and encourage the better class. We find some municipalities imposing a special tax on bicycles, and what is a better precedent for what I propose, upon all dogs. Why not tax the scrub? I trust you will continue to fight the scrub till he is driven from the land.

Yours truly, FEEDER.

An Experiment with Salt.

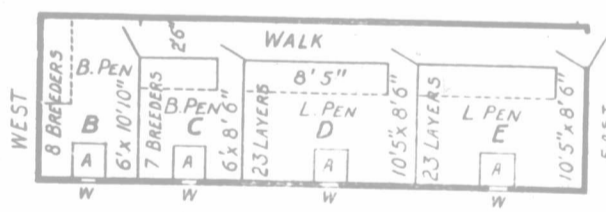
An observant farmer the other day called our attention to a trial he made last season applying salt to mangels. Shortly before thinning he sowed broadcast by hand on several rows at the rate of 250 pounds per acre of salt, at the cost of 90 cents, from which he secured an increased yield of 75 bushels of roots per acre, compared with those unsalted. That is to say, an outlay of a little over one cent gave him one bushel in return, which he thought was cheap mangels. As to any after-effect upon the land in relation to other crops, he, of course, could not speak personally. While an excess of salt is injurious to vegetation, it is well known that very considerable quantities are deposited through the atmosphere on lands near the seashore, and the spreading of seaweed on land is common. With many of the best Old Country root-growing farmers it is usual to apply from 4 to 5 cwt. per acre upon their mangel land. It is sometimes mixed with the manure, and sometimes applied as a top dressing before the last horse-hoeing. The action of salt in promoting vegetable growth does not appear to be fully understood, but is regarded as indirect in its influence, neither sodium nor chlorine—the two constituents of salt—being considered absolutely necessary plant foods, unless in very small quantities. It has a mechanical effect upon soil something similar to that of lime, but its most important action is as a solvent, liberating necessary plant food. Being of an antiseptic character, it tends to prevent rankness of growth under certain conditions. Hence, we can readily understand that its effect may be favorable under some circumstances, and not so under others. While it increases the quantity of the crop, it has been found in the case of beet root to lessen the total quantity of dry matter and sugar, and in potatoes the percentage of starch. With regard to its use on mangels, which shrewd Old Country farmers practice, and the successful trial referred to above—which, by the way, was not our informant's first favorable experience with salt on mangels—it would be well in this country to have further trials this season by farmers and experimenters, the results of which we shall gladly make known. In the meantime it would seem that the best results would be had when applied in conjunction with other manuring, and at a rate not exceeding 4 or 5 cwt. per acre.

Plan of Poultry House for Laying and Breeding Stock.

To the Editor FARMER'S ADVOCATE:

SIR,—Could you or some of you subscribers give me a good plan for inside of henhouse. It is 10 feet 10 inches wide by 32 feet 10 inches long, inside measurement. I want to keep about sixty hens. Would like to have two breeding pens for six or seven hens and cock in each; remainder of house for laying stock. Good large runs in maple grove. I first subscribed for the FARMER'S ADVOCATE in 1878, and have been a regular subscriber since, with the exception of one year. It improves with age. I am always anxious for the next copy. Wishing you every success, I am, E. A. FLIGG, Grey Co., Ont.

The accompanying illustrations represent the plan of such a poultry house as is asked for. It



was laid out by Mr. W. R. Graham, B. S. A., a successful and enthusiastic poultryman living at Bayside, Ont. In Fig. 1, pens B and C are for breeding stock. In these eight square feet should be allowed for each hen, not including the male. Pens D and E are for layers, in which five square feet should be allowed for each hen. These two will accommodate 23 hens each, and the breeding pens 15 each.

Fig. II., showing cross section, shows nest boxes 1 foot square, leaving 1 foot of walk in front of nests below dropping board. The diagram shows door opening into walk, so as to allow eggs to be gathered from the walk in all pens except B. The square marked A represents dust baths in front of windows. The building Mr. Graham strongly recommends a double board floor for both pen and walk, as it avoids drafts and is much easier kept clean than an earthen floor. Yards can be extended south for each pen, and if planted with plum or other trees the hens should have a paradise at all seasons if they are properly cared for.

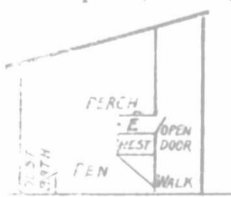


FIG. II.—END VIEW, CROSS SECTION OF POULTRY HOUSE. The building Mr. Graham strongly recommends a double board floor for both pen and walk, as it avoids drafts and is much easier kept clean than an earthen floor. Yards can be extended south for each pen, and if planted with plum or other trees the hens should have a paradise at all seasons if they are properly cared for.

Keeping Record of Milk Yield.

Among some recent interesting paragraphs from the Experiment Station of the Kansas State Agricultural College is one regarding "The Scales an Incentive to Increased Milk Yield." It reads as follows:

"T. A. Borman, of Navarre, Kansas, says his cows actually give more milk when there is a pair of scales hanging in the barn. At first thought this may appear ridiculous; but upon a little reflection it is not hard to understand. When a cow gives less milk than usual the record shows it, and an attempt is made to discover the cause and remove it. On the other hand, when the yield is above normal the causes are searched out and if possible the same conditions are supplied to the rest of the herd.

"But I have not the time to bother with recording each cow's yield," says someone. Here experience comes to our aid, and tells us that it takes about twelve seconds to weigh and record a cow's yield, or the milk from five cows can be weighed and recorded in one minute; and the extra pains that a milker will take when keeping a record will more than pay for the time."

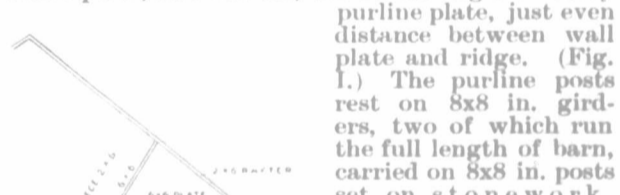
John E. Smith's Barn.

On the north bank of the Assiniboine River, facing the City of Brandon, is the stock farm of Mr. John E. Smith. At Beresford, some 15 or 16 miles to the south-east, Mr. Smith carries on an extensive grain farm and utilizes portions of it for pasturing young stock, etc., but at the home farm most of the sale stock is kept. A very large stock of Shorthorn cattle and Clydesdale horses is maintained. On the farm are two fine stone-basement bank barns. One was illus-



BARN RECENTLY ERECTED BY JOHN E. SMITH ON HIS FARM ADJOINING THE CITY OF BRANDON, MANITOBA.

trated a few years ago in the FARMER'S ADVOCATE, 112x50, with 10' stone basement, frame superstructure with 16-foot posts. The other was just completed last fall, a photograph of which is given in this issue. This barn is 72x36 feet, with 10-foot stone walls, the stonework being particularly well done. The superstructure has 2x6 in. 12-foot studs, purline posts 6x6 in., 12-foot, then a 6x6 in. plate, then a 7-foot piece, also 6x6 in., set on an angle to carry purline plate, just even distance between wall plate and ridge. (Fig. 1.) The purline posts rest on 8x8 in. girders, two of which run the full length of barn, carried on 8x8 in. posts set on stonework.



The barn floor is double boarded, with tar paper between, except the driveway, which is boarded, then paper, with 2-inch plank on top; the joists are 2x12 in. The ventilation is provided by a series of 2-inch iron pipes set in the stone wall about a foot from the top, every 6 feet, and two large box shafts 4x3 ft. running up through center to the cupolas. These shafts are also used as feed chutes. (Fig. II.) A 6-foot feed passage runs through the center, with a row of cattle on each side and wide passages to the rear. The flooring is of plank, with wide, shallow gutters. Stall partitions and mangers are all of 2-inch plank, very strong and substantial. The barn is well lighted with good-sized windows on both south and north sides. The only entrance is by 3 doors on east end, one for each passage, as is shown by the photograph. A frame extension has been built on this end, in which are several horse stalls.

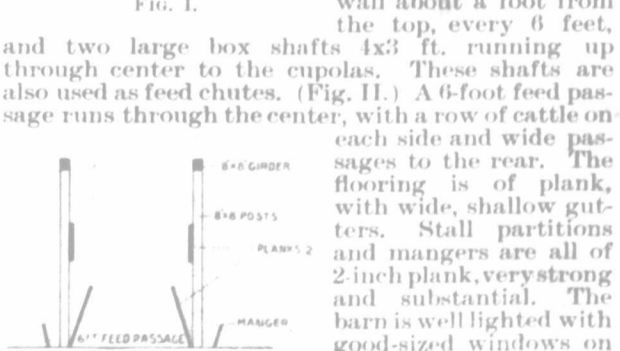


FIG. II.—Diagram of the barn's interior showing feed passages and stalls.

Exportation of U. S. Live Cattle.

[Written for the FARMER'S ADVOCATE by A. C. Halliwell, editor of the Drover's Journal.]

The number of live cattle and fresh beef quarters exported from the United States in 1898 was as follows, with comparisons:

	Live Cattle.	Beef Quarters.
1898.....	376,891	1,236,806
1897.....	489,486	1,309,800
1896.....	468,395	1,153,689

Fully 98 per cent. of the live cattle, and almost 100 per cent. of the fresh beef, was sent to Britain. The decrease in the number of cattle sent abroad on the hoof last year was quite heavy, as the above figures show, while the amount of beef quarters sent equalled an increase of about 9,000 cattle. Though prices paid for live cattle in England lately have been high enough to yield a good profit to exporters, they have not been able to buy the cattle with any freedom, and the advance on the other side was largely due to the fact that there were but few American cattle there to enjoy it. Owing at present to the

SCARCITY OF GOOD EXPORTABLE CATTLE, the prospects for the shipment of live cattle in 1899 are not very bright. Present indications point to no increase over last year's reduced shipments.

COST OF SHIPPING CATTLE.

The following figures may be taken as the average cost, at British ports, as terminal charges at the place of debarkation for live cattle from the United States: Dock dues, use of slaughter house, etc., \$1.20 per head; subsistence per day, 24 cents; commission of salesmen on each animal, 50 cents; driving (feeding, attending, etc.), 24 cents. The shipper who gets out with British terminal charges of \$3.75 per head upon his cattle considers himself fortunate. Add to the above charges freight, \$11, and \$1.50 for feed and attendance of each animal on the voyage, and \$1.00 for insurance, and the total expense for each animal shipped is \$17.85. This represents very nearly accurately the expense of getting a beef animal from the American port into the hands of the British buyer.

The freight from Chicago to the seaboard is about \$4 per head; feed and care on cars, about \$1; commission charge for buying, about 50c. per head. This makes a total of \$23.35 per head from Chicago stock pens to Liverpool abattoirs.

WHY THE TRADE WILL CONTINUE.

The chief reason why the exportation of live cattle will continue is that a certain proportion of butchers have customers who want to know that the cattle were slaughtered and inspected on the hoof where they are consumed. While it is generally admitted that beef ripens in transit as well as if held in stationary coolers, it does not maintain its color so well after once being exposed to the air. There is an undoubted advantage to the producer in having the trade in cattle upon the hoof continued, simply because it makes one more class of competition. There is many a plain fat steer that makes as good beef as the better appearing animal, but the live-stock export trade must take account of good appearances. An animal that, like a singed cat, may be better than it looks, does not command the attention that is given to one that is pleasing in appearance.

MONEY IN BOTH LINES.

The fact that the heaviest shippers of dressed beef are also the heaviest shippers of live cattle ought to be sufficient evidence that there is good reason for the existence of the live cattle export trade.

Boston exports of cattle and beef in 1898 included the following:

	Cattle.	Beef Quarters.
Swift & Co.....	49,682	292,407
Morris & Co.....	45,814	74,460
P. D. Armour.....	1,043	40,697

Rid the Cattle of Lice.

Cattle that are not treated occasionally during the winter months for lice are almost certain to become infested more or less, especially when enclosed in warm stables. While stock so plagued with vermin at any time will not make the best use of food given them, it is highly important that they be thoroughly cleansed before going out to the fields away from close personal oversight, otherwise some of them may become badly infested unknown to their herdsmen. One of our readers has recently written us that he had tried several sorts of applications, including kerosene emulsion, with little apparent check to the lice, and did not succeed in exterminating them till a mixture of tanner's oil, fish oil and coal oil was resorted to. The hair was clipped from the top of their backs, necks and around the horns, and the oil was freely used, with the result that a live louse could not be found, while it was believed that every nit was destroyed.

The Canadian Horse Show to be held in Toronto, April 14th, 15th and 16th, promises to be of greater interest to farmers and stock breeders than it has been in recent years. Greater prominence is being given to the breeding classes, and more liberal prizes in the classes being offered, while the saddle and harness classes are also being well provided for. The admission fee has been reduced to 25 cents, which will be a popular arrangement. There will also be reduced railway fares, and it is expected that Lord Minto will open the show.

Women and Poultry.

Those who wish to make a profit out of their poultry this season will by this time have begun to make preparations. The early hatches are the ones that pay, and all up-to-date poultry-keepers will try to have a large proportion of their chicks hatched in April, so as to secure next winter's laying stock, and also to have nice plump roasters for the early fall markets.

I would advise farmers' daughters right here and now to take up this branch of farm work and see what they can make out of it. Tuck up your skirts and go to work, and you will find poultry-raising a healthful and interesting pursuit, as well as being profitable. Women are better adapted for this work than men, as they will more faithfully attend to the many little details that go to make the sum



BARN—60 x 50 FEET, CEMENT FLOORS THROUGHOUT—BELONGING TO A. E. MUIR, HIGH BLUFF, MAN.

total of success; but remember that *success* means *work*, and failure follows neglect. In managing poultry, one must be quick to observe, prompt to act, and generally energetic and persevering, and if you have not these qualities to begin with, you will acquire them as you go on, if you are in earnest and mean to succeed. Both keeper and poultry need grit. If you are near a good market your profits are much more certain and returns quicker. Study the markets, both foreign and local, and make up your mind what is most needed and what you can raise to the best advantage. Do not think you will try everything at once. When there is only one member of the family to take charge, I would advise making a specialty of one branch. If your local market calls for choice new-laid eggs, and plump, tender chickens at all seasons of the year, begin with these and supply a first-class article, and you will soon be known and your produce sought after. This brings me back to the hatching question. Look over your flock now and see that every fowl is strong, healthy and vigorous. If there is a sick one, remove it at once, and I would also weed out a few of those small, poor-looking ones that lay such tiny eggs; also every surplus male that is not required, then your flock will look more uniform, and the useful birds will have a better chance. Nine farmers out of every ten keep more hens than they have accommodation for. Crowding is one of the greatest drawbacks to success, and I notice that it takes a long time for people to realize this. I have been told by people lately that they keep 150 or 200 hens; that they have been getting two or three dozen eggs a day this winter, and think they are doing pretty well. At the same time I was getting over three dozen a day from 60 hen. For the sake of economy, it is absolutely necessary to have a breeding pen from which to raise the young stock, and the pure-bred male should *always* be used. Instead of paying \$1 each for three or four inferior birds to run in the flock, pay \$3 or \$4 for one really good one, and buy from a breeder who keeps his cockerels separate from the hens until wanted for the breeding pens. From 12 or 15 of your best hens you can get enough eggs to raise your chickens from, and do not allow another male bird in the flock. I consider it scarcely honest to sell fertile eggs for export. Were all farmers to adopt the plan of the breeding pens and keep no males in the laying flock, our egg industry would soon experience a wonderful change. With the aid of cold storage in transportation our eggs would reach the foreign markets in first-class condition, as regards freshness and flavor, and there would be little waste; we could get top prices for them, and the demand would be increased tenfold. It is to our honor and profit individually and as a country to supply a first-class article in all lines, and it is the only way we can hold our own in any market.

Why should we not make a name for ourselves as supplying the best poultry and eggs that go into the British market. This is something that Canada's industrious women can do, by taking up the work and carrying it out in a systematic and businesslike way. This industry alone, small in its way, could be made a great source of wealth to our country and to ourselves individually, and I hope to see an increased interest taken in this line of work by our country girls, who would soon prefer it to the monotonous routine of work met with as teachers, shop clerks, etc.

As much intelligence is required for the successful management of poultry as for any of these occupations, and the body can keep pace with the brain,

as the outdoor life is most healthful and invigorating for young girls; they are brought more into contact with nature, and their minds are filled with a wholesome interest in practical things, and they are living where they are most needed—on the farm.

Huron Co., Ont.

P. J. C.

A. E. Muir's Barn at High Bluff.

A number of good, substantial barns have been, during the past few years, built on that portion of the Portage Plains lying adjacent to the village of High Bluff. Mr. A. E. Muir erected a barn last summer, a description of which will be of interest. It is calculated to accommodate the cattle and horses of a half-section farm. The barn stands north and south—60 x 50, on a 2-foot stone foundation. The frame is of 2x6 studding, double sheeted, with tar paper between. The barn proper is 36 feet wide, with a 14-foot extension. The studs of front wall are 18 feet; 9 feet 6 inches to ceiling. The purline posts are 6x6 inches, 18 feet, carrying plate half way between wall plate and ridge. These posts rest on 6x6 inch girders, which are carried on 6x6 inch poplar posts, resting on stonework. The 14-foot extension makes the cattle stable, and over it the loft connects with main loft, but had the roof been hipped up instead of down much valuable space would have been added. The stable is well lighted with 6 windows on east and west sides. And the ventilation system recommended by Isaac Usher & Sons is to be put in. The floors are all of cement from the above firm; the feed passages, down which the fresh air pipes are to be laid, have not yet been floored.

A close board partition divides cattle and horses. A stoneboat is used for drawing out the manure, a bare-footed horse having no difficulty in hauling it on the cement floor. The cow stable gutter is 14 inches wide, 8 inches deep next cattle, 6 inches deep

next passage. Cattle manger is 18 inches wide in bottom, right on the cement, with a 12-inch plank upright for front. A 6x6 inch water trough will be put on the feed passage side of posts. The horse manger has some good features about it, and we give a diagram of it. The 2x6 inch piece set on bevel above manger effectually prevents hay being thrown out, and also prevents the horses biting or interfering with the side of manger next feed passage, as they cannot get at it.

The loft space is very free from braces, and affords room for 50 or 60 loads of hay, with room at the end for grain crusher, etc. An ideal windmill, 12-foot geared wheel, is used for pumping, crushing, etc., and gives good satisfaction. A track for hay fork is swung from the ridge, and the hay fork worked to good advantage last fall.

The Condition and Needs of the Horse Trade.

To the Editor FARMER'S ADVOCATE:

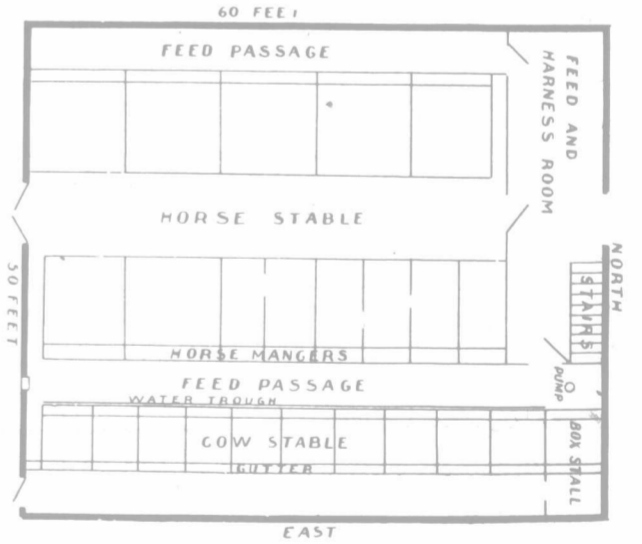
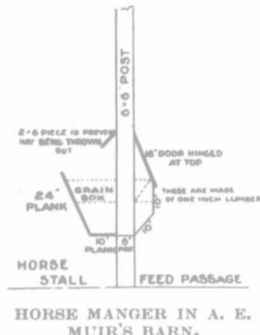
SIR,—There never was a time in the history of this country when we needed to use greater caution and judgment in this important industry than at present. I am pleased to think that you are aware of the fact that this great industry is being neglected and left out in the cold. Certainly the horse breeders of this country have to contribute their share toward our agricultural schools of instruction. We find the Government, through the Farmers' Institutes, are sending able, practical men throughout the length and breadth of the land, year after year, with paintings and charts of the model hog, with full instructions how and what to breed; also of the beef steer and the dairy cow. The butter and cheese industry is aided and encouraged. Everything to help all the other departments of agriculture except that of the noble and indispensable animal, the horse. I have failed to see any effort to give this matter at least its reasonable share of attention with the other important industries of our country. We have received very valuable instruction at our Model Farms by importing and crossing the breeds of cattle, hogs, and sheep, but have they ever imported any of the different breeds of horses to give the public the benefit of experiments in this line?

There are three kinds of horses that are indispensable, namely, the draft horse, the Thoroughbred, and the useful and fashionable Hackney. By proper mating and judgment can be produced the draft, carriage, roadster, saddle, and hunter—five useful and profitable classes. It will take too much of your valuable space to note full particulars of the mating process to produce the different classes, but any reasonably intelligent horseman knows it can be done successfully. I consider the present the most critical period of horse breeding in the history of our country. When the breeding and importing of the different breeds began, say thirty years ago, we had a continual, steady, rising market. Then any kind of haphazard breeding was profitable. We also had the Northwest for a dumping ground for almost any kind of horse in the country of promise to pay, but in too many cases never did. But now, outside our own local demand, we have only one main market, namely the British

market. With our fine climate and cheap feed, the right kind of horses for export could beyond a doubt be raised as one of the best-paying products of our farm, as the scarcity is stimulating the business. The farmers of this country, instead of making the best of their opportunities, are in a fair way of killing the business. This is the way the average farmer reasons: "I believe horses are going to pay. I must breed the old lame mare. Of course, I cannot afford to pay your price—\$10 or \$15. I can get the use of So-and-So's horse for \$5. As horses are cheap I cannot afford to pay more." He thus gets a barnyard full of rubbish, and goes round squealing that he cannot sell, while the better class is bringing good paying prices. There are not many men in our country who can afford to import first-class sires for their own use without the patronage of the country or to stand them at a fee which will lose them money. Let the breeders keep down the fees as the very best, sure means of keeping down the quality of the sires, for first-class stallions will not be imported while service fees rule so low. Two or three dollars for each mare makes a great difference to the owner of a sire. If you want to breed profitably, breed only your best mares to the best sires available. Fifteen dollars is a reasonable fee for a good sire. I notice that the owner of a stallion is expected to be an insurance company also. If a man has his colt die or it gets killed inside a year he expects you to throw off half, even if the fee is only \$8 or \$10. The rule that they have in Britain—half at service, half when the mare proves in foal—is the only fair way for both parties. It may be asked what kind of horses pay best. There is one rule that applies to all classes: First, fair size, good feet and legs, large heart girth, giving ample room for heart and lungs; deep, long, rounded ribs, to stand shipping and hardship; short back and strong loins. In these times of keen competition avoid as you would poison the horse that when you stand behind him you can only see his hips and neck—one that you have to go to his broadside to see if he has any middle; and also a horse with 16-hand legs and a 15-hand body. Have the height in the body, not in the legs. Good feet and legs; wide, heavy bodies, with the weight as near the ground as possible, are the kind that are sure money-makers. Long, narrow, leggy horses of any class are a curse to the owner and to the country, and will eventually ruin anyone who breeds them. If we use caution and good judgment we ought to compete successfully with any country. I am pleased to say the first-prize cart horse shown in a cart at the Jubilee Show at Aberdeen was a Canadian-bred gelding, valued at £100 sterling, purchased and owned in Glasgow. He was a short-legged, heavy-bodied fellow, weighing 1,800 pounds. The owner told me they would pay £70 each for a shipload of such horses. Now, Mr. Editor, as I have started the ball rolling, I hope you may solicit the aid of such men as the Sorbys, Davies, Davidsons, Millers, on drafts, to give you their able assistance; and there are such men as Messrs. Beith, Crossley and Cochrane on the Hackney; and my friend Professor Smith, who is looked up to as authority on Thoroughbreds wherever the horse is known; Mr. Fuller, also a practical man in Thoroughbreds. These are all men of the highest reputation and honor in the business, and would be able to do justice to this very important but neglected question.

Huron Co., Ont.

A. INNES.



GROUND PLAN OF A. E. MUIR'S HORSE AND CATTLE BARN FOR A HALF-SECTION FARM.

Virden Farmers' Institute.

A meeting of the Virden Farmers' Institute was held in the Town Hall, Virden, Saturday, the 18th March. The hall was well crowded with representative farmers of the district. Mr. J. Bonsfield, of Brandon, delivered an address on dairying, giving a great deal of useful information in buttermaking; also the operating of a creamery, and the value of a cream separator. The Institute President, Mr. Peter McDonald, then gave a short address on the object of Farmers' Institutes, and urged those present who were not members to join the Institute. Mr. J. W. Scallion then dealt with the transportation question, going fully into freight rates and Government ownership of railways. At the business end of this meeting the members decided to hold a plowing match the coming summer, and no doubt a great interest will be taken in this event.

The Horse Trade.

An able letter from a worthy authority upon horse matters appears in our Stock department in this issue. The opening point made by Mr. Innis is undoubtedly well taken, as not only are we not producing the high classes of horses it pays to export, but we feel safe in stating that the horse stock of the country doing the farm work has not for a long time been of as low an average quality as at the present time. This is a fact to be deplored, and one which can be overcome only by persistent and liberal effort. Because farmers have not made money by breeding horses for export, that is not sufficient reason for ceasing to endeavor to raise foals, because we must have horses to do our work, and so long as we depend on buying, so long will we be required to put up with low-grade animals, such as no true horseman can take a pride in following or tending.

Mr. Innis has referred to draft, carriage, roadster, saddle and hunter horses as the useful and profitable classes of horses to raise, and has also mentioned the British market as our only important outlet outside our home demand. While Britain has been our chief foreign horse market, we are led to believe, from a recently issued report upon markets for American horses in foreign countries, that Germany, Belgium, France and some other European countries do not raise nearly as many good horses as they need to conduct their business. The information contained in the report referred to has been secured by American Consular agents, who have made thorough investigations into the needs of the horse trade in the various European horse-consuming centers. It has been shown that the needs in the various countries, in a general way, call for the same classes of animals, while it is strongly pointed out that misfits, scrubs and badly broken horses will not do; but a young, good, sound, well-broken horse, with plenty of bone and muscle, compactly built, of almost any recognized class or type, will sell well. A general class, for which the demand in all European countries seems to be growing, is that for army purposes. It requires about 2,000 horses annually to remount the English cavalry, and of these Canada has supplied in recent years from 4 to 5 per cent. Cavalry horses are divided into two classes, ranging from 14 to 16 hands high, and in weight from about 800 to 1,150 pounds. They must be sound, not vicious, of solid dark colors, without prominent marks. A well-bred, low, short, thickset horse, with strong flanks, good high tail, buttocks full and square, ribs rounded out so as to "furnish" well, well-shaped legs, with plenty of bone, and good feet, is about the thing desired. Prices vary, \$180 to \$200 being received for suitable horses in France, while in Germany the price depends on the Government to which the horse is sold, and usually averages about \$250 per head.

Horses for business purposes are required in enormous numbers in the large European cities. For example, London is claimed to have in daily use 750,000 horses. It is estimated that these give about an average of five years' service, so that this market alone requires 150,000 new horses annually for its business world. Of these, there are several classes. The tramways, bus companies, jobmasters, and owners of light delivery wagons, are large purchasers of Canadian and American horses. Horses for their use must be 15½ to 16 hands high, weigh from 1,200 to 1,350 pounds, be compactly built, with plenty of bone and muscle, and good action, and average from five to seven years old. They should measure from 76 to 78 inches in girth, and from 8½ to 9½ inches around the leg just below the knee. Such horses will sell from \$170 to \$185, and even as high as \$200 for animals of extra quality. Large bus horses for suburban work, five to eight years old, 16 hands high, weighing 1,600 to 1,700 pounds, with a girth of 88 inches, bring from \$185 to \$225, and even higher, while carriage horses, 90 inches at girth, and 9½ inches around the leg just below the knee, with good knee action and well-bred, will, if well matched, bring from \$750 to \$1,500 for the pair. For heavy drafts, the demand is always brisk, and Clydesdale and Shire horses are reported most in demand. Solid, stocky, 16½-hand, 1,750-pound horses, free from blemish, five to seven years old, with 10 to 10½ inches of bone below the knee, and 98 to 100 inches girth, bring from \$250 to \$375 each.

The foregoing has especial reference to London market, but it applies in a general way to the demand in all the large cities of the United Kingdom and other European countries. The trade does not require either an impossible or an ideal horse suited to all purposes, but it does demand good horses of every kind, thoroughly prepared for their special work. A good horse in Canada is a good horse in Europe, provided he fills a distinct want in the business of the country. In Europe, horses pull carts, cabs, omnibuses, coaches, trams, plows, drays, etc., and carry men on their backs. Thus they need horses of all breeds, for no one breed can possibly fill several requirements satisfactorily. With regard to the importance of exporting only horses of good quality, it may be pointed out that competition is keenest in the low-grade sorts, and it costs about \$30 to \$40 per head to transport a poor animal, while a better one costs no more to ship.

The American report we have already referred to points out the character of horses desired by

each of the countries mentioned below, as indicated by the classes taken by them during recent years:

Great Britain.....	90 per cent. draft.
".....	7 " coachers.
".....	3 " carriage horses.
Germany.....	95 " draft, 1,500+ pounds.
".....	5 " high-class carriage,
".....	running and trot-
".....	ting horses.
France.....	85 " cabbers.
".....	7½ " draft.
".....	7½ " trotters.
Belgium.....	75 " draft, 1,600+ pounds.
".....	23 " street-car horses.
".....	2 " trotters or roadsters.

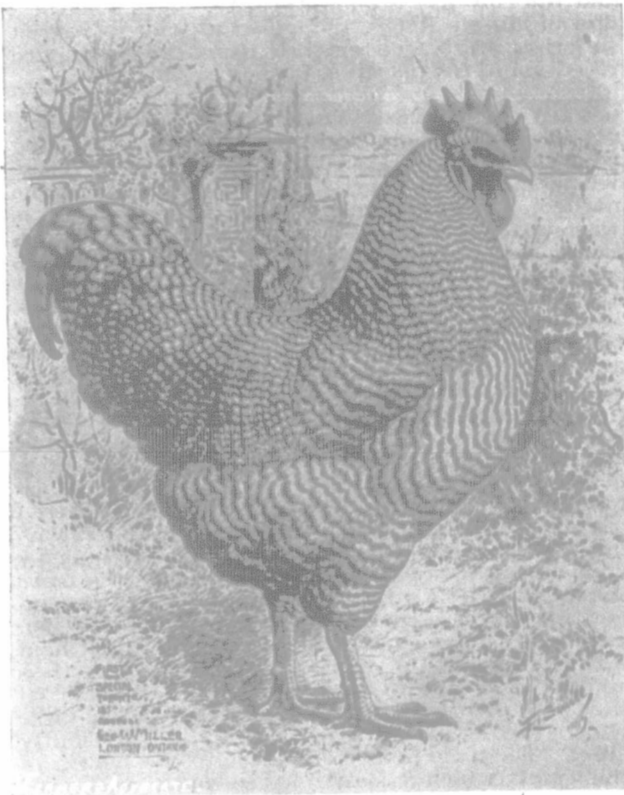
From the outlook now before us it is evident that those who have suitable brood mares and do not utilize them in the breeding stud are neglecting a means of helping themselves unto a better financial footing.

Black Teeth in Pigs.

To the Editor FARMER'S ADVOCATE:

SIR,—I have often seen it authoritatively stated, in the ADVOCATE and elsewhere, that there is no such thing as black teeth in young pigs. I may as well be told that the sun does not shine, for I have had pigs die having black teeth; others have been in a very unthrifty condition, going back every day, also with black teeth, and as soon as the teeth were removed they would immediately improve. It has been my practice for some time past to remove the teeth which are liable to become black (that is, eight teeth—four upper and four lower), and I am decidedly of opinion that if it became the general custom to remove them when about two weeks old there would not be so many unthrifty, miserable-looking pigs to be seen.

If your correspondent from York Co. will pro-



PLYMOUTH ROCK COCKEREL.

OWNED BY GEO. W. MILLER, LONDON, ONT. WINNER OF 1ST AND SPECIAL PREMIUMS, TORONTO, 1899.

vide his pigs with sunshine, exercise, and dry bedding, he will probably see an improvement. While the first article may be hard to obtain sometimes, there need be no difficulty about the second, as if the weather is stormy they can be chased around the pen a few times daily, as I have often done with evident benefit. W. EVENS.

Simcoe Co., Ont.
[NOTE.—The FARMER'S ADVOCATE has authoritatively stated, not that little pigs never get black teeth, but that black teeth is not itself a disease. We know perfectly well that young pigs do frequently have black teeth, but they are generally admitted by authorities to indicate faulty digestion, and they therefore go along with an unthrifty condition. It is true also that black teeth sometimes cut the tongues of the youngsters, but they are not necessarily black in order to do harm in this regard. Mr. Evens has made two or three points that are worth noting. Teeth that cut the mouth, whether they be wolf teeth in the young horse or black teeth in the little pig, should be removed as soon as it is evident that they are doing damage.—EDITOR.]

Salt the Cows Regularly to Prevent Long Churnings.

SIR,—My attention has been drawn to the trouble many of your subscribers have had with long churning in cold weather. I formerly experienced the same difficulty, but have found that if the cows are given salt once a day in their feed it makes no difference whether they are fresh in milk or strippers, the butter will come in reasonable time. I use the old dash churn, with cream at 60 degrees, and invariably get butter in thirty minutes, which I consider is quickly enough.

Huron Co., Ont. Mrs. J. H.

Milk Fever Treatment.

In the FARMER'S ADVOCATE of February 20th, page 90, was published a description of a new cure for milk fever, which consists in the main of injecting a gland stimulant into the udder. There have recently come beneath our notice two cases of this malady, which were treated according to the new system, along with other medicines, and made rapid recovery under the treatment of Dr. Tennant, V. S., London, Ont.

Case 1, had calved 24 hours, and was found down and unable to rise. Her head was around at her side, her eyes were glaring, and other well-defined milk-fever symptoms were present. The veterinary first drew with difficulty six quarts of blood from her. He gave her one ounce of aloes, half a pound of common salt, and two ounces of spirits of ether nitrate. He also milked out the udder and injected one dram of iodide of potassium in a quart of water at 98 degrees. She did not lose the power of swallowing, and every five hours she was given the spirits of ether nitrate and a quantity of whisky, the latter as a heart stimulant. Twelve hours later the cow was still down, but her bowels had commenced to move. She was again milked out and injected into the udder as before, and in six hours she was up. She was given another injection at the end of ten hours from the second one, while the spirits of ether and heart stimulant were continued. On the third day the cow had made complete recovery.

Case 2, was in high condition. Twenty-four hours after calving she was down, perspiration stood on her body, respiration was difficult, pulse fast and weak, temperature up to 103, and she had been constipated ever since calving; in fact, she appeared a likely case to die. She was treated much the same as case 1, except that she was not bled. Her udder was injected after milking, every ten hours. She was able to rise on the 2nd day, but was still quite sick. At the end of 48 hours she showed a decided turn for the better, and before the end of the third day she had almost recovered. This case required more heart stimulating with whisky and nux vomica than case 1. These are the only cases of milk fever the doctor has had since he commenced the new treatment, and he is fully convinced of its effectiveness. It would be interesting and more convincing to see a bad case treated with the new system without the aid of other medicines.

An Experience in Shipping Fat Cattle.

A live question with a good many cattle feeders at this season of the year is as to whether they shall sell their cattle in the stable to those who are in the export trade or take them to the British market themselves. A good many Western Ontario men who fatten one or two carloads each season pursue the latter plan. Space is first engaged from a Montreal live-stock commission merchant, after which the cattle owner is notified when to start to catch a certain boat. A couple of men go with the cattle, but, beyond feeding and watering on shipboard, have practically nothing to do with the handling or disposal of the animals, which are taken in charge by a commission firm, say in Liverpool, and sold. In order to afford our readers an idea of the various items of outlay that will be deducted from the gross amount for which the carcasses sell, we give below the Montreal and Liverpool statements relating to a bunch of 18 head shipped last June from a Western Ontario point:

18 CATTLE—S.S. SCOTSMAN.		
Montreal, June 4th, 1898.		
To Can. Pac. Ry., freight.....	\$ 67 28	
" " " Stock Yards Feed.....	2 33	
" W. Railway loading—7c.....	1 26	
" Wharfage charges—13c.....	2 34	
" John Storen, ropes, palls, etc.....	1 84	
" Insurance \$75 = \$13.50 @ 1½.....	15 60	
" Hay, 4,050 lbs. @ 80.....	18 25	
" Straw, 200 lbs. @ 85.....	60	
" Meal, 1,300 lbs. @ 80.....	13 00	
" Check to balance account.....	670 28	
By C. P. R. rebate.....		\$ 6 00
" Draft, £162.....		783 90
		\$790 88 \$790 88

LIVERPOOL STATEMENT.

June 25th, 1898.		
Beeves. Buyer.	SALE.	EXPENSES.
1 Lachlan	767 @ 3/04 14 11	Market charges 6 12
2 Capewell	1,271 @ 3/2 25 3	Freight..... 40 10
1½ Bowler	1,103 @ 3/2 21 16	Lairage..... 3 12
1 Bowler	241 @ 3/6 5 5	Dock Dues..... 7 6
1 Howe	849 @ 3/ 15 18	Keep..... 1 4
2 James	1,655 @ 3/ 31	Straw..... 4
4 Berry	122 @ 2/2 1 13	Droving..... 18
2 Pollard	1,800 @ 2/11 32 16	Killing and Car-
2 James	1,566 @ 2/11 28 10	rying..... 2 17
6 Ja-t	4,633 @ 3/ 86 17	Beef Sheets..... 6
		Refrigerator..... 1 7
		Cartage..... 5
18 Fat	944 @ 2 1/8 8 7 2	Cable..... 5
18 Offals	15/1 13 11 6	Commission..... 4 10
16 Hides	20/ 16	Draft..... 162
2 Hides	16/ 1 12	Balance..... 79 2 2
		Cash..... 5
	£302 19 8	£302 19 8

It appears that an advance was made upon these cattle at Montreal, and £5 cash was drawn at Liverpool by the person taking them over, the balance being remitted by draft to Canada. The cattle were sold, dressed meat, at auction, to different parties, bringing a gross return of nearly \$81.50 each, while the total charges appear to have been about \$21.60 each, leaving a net return to the owner of about \$60 per head.

The Feeding Value of the Seed of Lamb's-quarters (Chenopodium Album).

To the Editor FARMER'S ADVOCATE:
 SIR,—During the last two months we have received many enquiries from correspondents in Manitoba and the Northwest Territories regarding the value of the seed of that prevalent weed, lamb's-quarters, as feed for stock, pigs, etc. As there are apparently no data on record which would furnish the desired information, we have procured a sample of seed, and its analysis is now in progress. The results, we expect, will be ready in about a fortnight, and since there is evidently a large number of farmers having a supply of this material from last year's threshing, we shall be pleased to forward a copy of our report for your columns.

In the meantime, I would emphasize the danger in feeding the seed without previous boiling or grinding. Without one or the other of these treatments I feel sure that much of the seed would pass unchanged through the animal and thus be distributed over the farm in the manure.

We determined, in 1890, the feeding value of the whole plant, taken while still green and succulent. Its composition was as follows:

Water.....	81.56 per cent.
Albuminoids.....	2.97 "
Fat.....	.43 "
Fiber.....	1.36 "
Carbohydrates.....	7.41 "
Ash.....	3.27 "

From the above data we should not deem it as valuable as good pasture grass, though it is not wanting in nutritive compounds. The specimen analyzed was quite young, and had only recently flowered. We, consequently, conclude that the greater part of the nutrients mentioned above are digestible. As the plant matures the fodder constituents would certainly increase, but at the same time the plant would become less digestible, owing to the development of woody fiber.

Analysis showed that practically one-half of the "ash" was potash, demonstrating that this weed makes heavy drafts upon the soil's store of this valuable element of plant food.

FRANK T. SHUTT, Chemist.

Experimental Farms.

[There are several farmers within our knowledge who have been feeding the seed of lamb's-quarters and wild buckwheat to their stock, first boiling it and then mixing it with bran or chopped oats. One successful farmer told us recently that he was using boiled lamb's-quarter seed mixed with bran for his horses, calves, milk cows, pigs, and poultry, about as he would use flax seed, and he considered it nearly as good, and certainly much less expensive.—Ed. F. A.]

QUESTIONS AND ANSWERS.

Veterinary.

TUBERCULOSIS.

J. B. P., Assiniboia:—"I am sending a piece of lung of a cow that died recently. The lungs were swollen to twice the size of normal and covered with blotches, such as the piece I am sending. They were very fiery looking. The heart and liver seemed to be in a healthy condition. The local quack vet. pronounced it pneumonia. Will you please let me know the disease and what the remedy if I should have another case like it? I might say that she seemed to be getting better, when she gave birth to a calf, and from that time on she kept growing weaker till she died."

[Examination of the small piece of lung tissue revealed the presence of seven tubercles, varying in size from a No. 3 shot to a large pea, which afforded ample evidence that the cow was affected with tuberculosis, and it is very probable that disease was the cause of death. Would advise you to bury deeply or burn the carcass. The stall which the cow occupied and its immediate surroundings should be well cleansed and disinfected. Have, if possible, the tuberculin test applied by a competent person to the rest of your cattle.

W. A. DUNBAR, V. S., Winnipeg.]

RETENTION OF PLACENTA—LEUCORRHOEA.

J. E. C., Hullcar, B. C.:—"I am a new subscriber to the FARMER'S ADVOCATE, and would be glad if you would give me a remedy for cows that have not cleaned properly after calving. I will esteem it a great favor if you will tell me if anything can be done for them; also what to do to prevent it? 2. We have a pure-bred Jersey cow that calved about eighteen months ago, but never cleaned after it. She is in good health and condition, but does not come in heat, and there is a thick, matterly discharge from the womb. She is still milking. Can anything be done for her?"

[The foetal membranes, placenta—"afterbirth"—"cleanings" are naturally expelled immediately, or very soon, after the birth of the foetus. Among the domesticated animals this favorable termination to the act of parturition usually attends the mare, sow, bitch, and cat; but among ruminants, represented by the cow, ewe, and goat, particularly in the cow, retention of the placenta for a prolonged period is not infrequently observed. This condition may, to some extent, be accounted for by the anatomical peculiarities of the mucous surface of the uterus of the cow, and the numerous sinuous animals. The surface membrane is covered over in some parts very thickly with a network of vessels called cotyledons, and to these, during the period of gestation, the placenta is very firmly attached.

At the termination of gestation the union between the maternal cotyledons and those of the placenta should, however, become dissolved; but for certain reasons more or less obscure this much-to-be-desired segregation does not always take place. Some of the specially supposed causes of retention of the placenta are: Premature parturition, protracted and laborious parturition, abnormal adhesions between the womb and foetal membranes, rapid closure of the os uterus (mouth of the womb) after delivery. Old or poorly-fed cows are said to be subject to the accident, giving cold water to drink too soon after calving, etc. Some one or more of these causes may occasionally operate, but during a practice extending over twenty-four years I have noticed the abnormality in question in cows of every age and condition and under every system of management—good, bad, and indifferent. There are grounds for believing that the chief cause which produces retention of the placenta is not yet discovered. It may eventually be found to be, to a great extent, due to some peculiar nervous influence, in certain cases, brought to bear upon the cow during the last stage of pregnancy, or during, or soon after, parturition.

The treatment is medicinal or mechanical, or a combination of both. The former consists in the administration of so-called "cleansing draughts," which are supposed to hasten the expulsion of the placenta. These are, or should be, composed of a laxative, diuretic, ecbolic, carminative, and a stimulant, and should be given within three days after parturition. If this treatment is not effectual in expelling the "afterbirth," its removal must be accomplished by mechanical means, which embraces an intelligent use of the hands and arms of the operator. The time when manual interference is necessary will depend very much upon the temperature of the atmosphere and the physical condition of the animal. If the weather is cool or temperate, and the cow has a good appetite, gives a natural flow of milk, is lively, and apparently in no respect suffering any inconvenience from the prolonged retention of the placenta, in such cases a too hasty interference is not indicated. Patience should especially be exercised when a large portion of the placenta has already been expelled and is hanging from the vulva, because there is evidence that the whole mass will shortly become detached in the natural way. When, however, the weather is warm and the cow exhibits symptoms of constitutional disturbance, manifested by uneasy movements of the hind legs; straining, with frequent attempts to micturate; appetite and flow of milk more or less impaired; and the exposed portion of the placenta giving evidence, by its change of color and smell, that decomposition has commenced, its removal should then no longer be delayed. In removing the placenta the operator should make bare both his arms to the shoulder, wash his hands and arms in a solution of creolin (one part to fifty parts of water), and afterwards smear them with a lubricant made by mixing one part of creolin with fifteen parts of vaseline or lard. The washing and smearing of the hands and arms should be frequently done during the operation. This antiseptic measure should be strictly observed, especially when decomposition has made considerable advancement. When all is ready an assistant will grasp the tail and hold it to one side, and if the cow is nervous or restless another assistant will take her by the nose until the operator inserts his hand into the vagina, after which the animal will usually stand sufficiently quiet. The hand is then advanced to the mouth of the womb, which is sometimes so much contracted that the hand cannot enter. When such is the case the opening must be carefully dilated, with the fingers in the shape of a cone, until it is wide enough for the hand to pass through. When one hand has entered the womb the part of the placenta exterior to the vulva should be grasped by the other hand, and steady, firm, but not violent, tension applied to it, which will serve to guide the hand within the womb to the adhering parts. The membranes have now to be carefully separated from the cotyledons before mentioned. This is done by persistent and skilful manipulation with the two first fingers and thumb. The operation in performing it properly (which is the manner in which it should always be done) is often a very tiresome and tedious one, and requires the exercise of a good deal of patience and perseverance on the part of the operator. I may say that in performing the work there is much advantage in relieving one hand with the other. On the removal of the placenta, if it is decomposed, and a sanious, fetid discharge is being ejected, the womb should be thoroughly washed out with warm soft water, using an enema pump or large syringe for the purpose, after which it should be plentifully injected with a two-per-cent. solution of creolin—creolin, one ounce; water, fifty ounces.

2. Your Jersey cow's ailment is leucorrhoea (whites), caused, no doubt, by the non-expulsion of the foetal membranes. The case being one of long standing, the successful treatment will necessarily be somewhat difficult. The womb and vagina should be thoroughly washed out once a day with warm soft water. This should be done with a large syringe, and the injections should be continued each time until the water flows out quite clear. After each washing the parts should be injected with a four-per-cent. solution of permanganate of potass, permanganate of potass, two ounces; water, fifty ounces. Give internally in mash twice daily for two weeks, iodide of iron, one dram. As the discharge disappears the local treatment should be gradually discontinued. W. A. DUNBAR, V. S.]

ITCHING STALLION.

SUBSCRIBER, Carleton Co., Ont.:—"I have a stallion four years old that has a very heavy dandruff in his skin. He is very itchy, scratching his tail and mane. Kindly advise what will cure him?"

[We have found it no easy matter to stop stallions rubbing their manes and tail when being well fed. It is possible that the one in question is being pestered with small lice, and for fear that he is we would advise rubbing pulverized sulphur well into his neck and other parts that he rubs. Then after three days give him a thorough washing with one of the commercial sheep or cattle dips. (Any of those advertised in our columns are good.) Apply the liquid warm and vigorously until his skin is clean. Every few days following rub more of the dip into the itchy parts. This treatment will remedy the external cause, but he should have sulphur and saltpetre, half and half, one tablespoonful in mash once daily, to cool his blood. Keep the horse in comfortable, dry quarters, as the sulphur will tend to make him liable to catch cold. It would be well to lower his diet to some extent.]

FOUL IN THE FOOT OF COWS.

B. L. O., N. S.:—"Will you please let me know what will help my cow? She is lame in the front feet. Some three years ago there were a number in this neighborhood the same, and one person told me that he had to kill them, as they got no better."

[From the peculiar form of the foot of cattle they are especially liable to the lodgment of dirt within the cleft of the foot, which causes lameness. On examination, we find a foetid discharge proceeding from the part, which spreads to the back part of the heel, causing little vesicles to appear in the form of little scabs on the coronet. The treatment consists of cleansing the part by hot fomentations and a poultice of turnips, bran or linseed meal. The parts being cleansed, take a strip of strong flannel, double and pass between the claws, drawing each end forward and tying between the loop. Apply the following liniment until well: Powdered sulphate of copper, 1 ounce; molasses, 4 ounces. Boil until it assumes a reddish appearance; apply daily. DR. W. MOLE.]

MARE ABORTED.

READER, Ont.:—"I have a mare fourteen years years old that slipped her foal nine weeks before she was due to foal. She got hay morning and night, and good clean wheat straw the rest of the day. I fed half-gallon oats in the morning, turnips at noon, and a little boiled oats at night. She was in good health, and was doing light work two or three times a week. She did not receive rough usage and never slipped or fell. What is the cause of abortion? If bred again would she be more liable to slip in future, and would it be objectionable to use the same sire?"

[It is quite impossible to decide what was the cause of the abortion. Sometimes the smell of blood or a fright or some little derangement of the system will be followed by abortion by mares. Her feed and care were apparently all right, provided the roots were never fed frozen nor the fodder ergotty. Mares that once abort are usually liable to do so again. The sire had nothing whatever to do with the abortion, any more than that he got her in foal.]

COLT WITH RINGBONES.

Stormont, Ont.:—"I have an 1898 colt that seems to be getting ringbone or such formation on all his legs. I do not know whether it is hereditary or from tying him up too much. Last fall when I took him from his mother I put a halter on him, and I suppose he stood a month or so without getting any exercise. The weather was so cold, and hardly any snow, that I hated to let him out. I am at a loss to know if this is the cause. Both sire and dam are sound, but I am told that many colts from the dam's sire are blemished with ringbone. The horse himself is sound, and a fine Hambletonian. The lumps on two of the joints are quite a size, the other two not so bad. I have rubbed on Kendall's Spavin Cure and other such medicine, but I cannot see any good from it. What course would you advise?"

[Without seeing the case it would be unsafe to pronounce the trouble "ringbone." The chances are, however, that such is the case, especially if he possessed a natural weakness in the pastern joints and his feet were allowed to grow long, throwing him back on his joints. We think it would be well to allow a qualified veterinarian to deal with the case. At any rate, he should have a roomy box stall and be fed well, and if the trouble is really ringbone, his joints should be blistered with an application of mercury or cantharides, about 1 to 16 parts of lard; also have his feet levelled up.]

Miscellaneous.

REGISTERING CROSS-BRED COLT.

FARMER, Yorkton:—"1. Would it be possible to register a colt bred from a pure-bred Clyde mare and a pure-bred Shire stallion—parents both registered? 2. How many mares could be bred to a good healthy two-year-old stallion without injury to him?"

[1. No. The colt would be a cross-bred and not a pure-bred. The Canadian Draft Horse Register did record such breeding, but it has been abandoned. 2. Fifteen.]

GREEN BARLEY FOR FODDER.

E. B. Boissevain:—"1. Would some of your readers give their experience with barley sheaves as feed in winter, as I see neither Brandon or Indian Head reports mention whether they have tried it or not. I saw it recommended by someone last year, so I sowed eight acres last spring on land I had manured, and during this winter fed it to all young stock and any cow that went dry during the winter. I also fed it twice a day to milch cows, with the addition of oat sheaves, hay, bran, and chop. Everything in the stable is in first-rate condition, and to show how good, a butcher offered me \$40 for a heifer two years old, and \$30 for another somewhat younger. I had heard that barley was bad for milch cows, but cannot see any evil effect with mine; certainly they do not "go for" it so readily as oats. Previous to this year I had lots of prairie hay for everything, but if barley will do with me again as it did this year, I would not mind much for hay. I took a big load off each acre, and figure that the cost per head for barley sheaves is about \$4.

"2. Would also ask for information concerning those new implements called "land packers," as the accounts I hear of them hardly seems feasible?"

[1. Barley cut green is used extensively in the Pacific States for hay, and we have known it to be used frequently by parties in this country with satisfactory results; but, as our correspondent says, the stock do not like it as well as oats, which generally yield a much heavier crop per acre than barley. We think it preferable as a fodder crop, however; there are occasions when a barley crop will suit land better than oats, and there is no good reason why barley should not be utilized as was done by E. B.

2. The new implement referred to has not been introduced to any extent in this country, and just what effect it will have is not easy to say. If any of our readers have had experience with them, we should be pleased to publish the results.]

BOOKS FOR THE FRUIT-GROWER AND GARDENER.

S. SPROUL, Assa.:—"Please let me know what books you have in your library that you would recommend as useful to one who endeavors to cultivate fruit trees, large and small, and garden stuff, in British Columbia? Also state the price, that I may be in a position to order."

[The latest really helpful books upon fruit-growing and gardening that we have received belong to what are known as the "Rural Science" and "Garden Craft" series. Of these, we would recommend the following: "The Principles of Fruit-growing," by Bailey, price \$1.00; "The Horticulturists' Rule Book," by Lodeman, price 75 cents; "The Nursery Book," by Bailey, price \$1.00; "Plant Breeding," by Bailey, price \$1.00. We can furnish the above books direct from our office, post-paid, at the above prices, or will give any one of them as a premium for obtaining two new yearly subscribers to the FARMER'S ADVOCATE at \$1.00 each.]

ADMISSION OF SHEEP INTO CANADA FROM FRANCE.

E. P., Middlesex Co., Ont.:—"Are sheep admitted into Canada from France, and, if so, under what quarantine regulations?"

[Sheep from France are admitted into Canada as per the following regulations, as given in the Regulations Relating to Animal Quarantine and Health of Animals: The importation into Canada of live animals coming from Europe shall be prohibited, except at the ports of Charlottetown, Halifax, St. John, N. B., and Quebec, and such other ports as may hereafter be indicated by the Minister of Agriculture.

All animals arriving in Canada from Europe, through any port on the Canadian seaboard, shall be subject to inspection at such port by officers who may, from time to time, be appointed for that purpose.

A quarantine of 15 days shall be enforced upon all ruminants imported from countries in which foot and mouth disease has existed during six months preceding such importation.]

THE BEST SEPARATOR.

G. C. ROSE, Hants Co., N.S.:—"There has been a considerable written lately about cream separators. I would like to know what make of hand separator is considered the best and cheapest, most durable and runs the easiest, and has the least machinery to keep clean. I was thinking of getting one, but think they all cost too much money?"

[We presume a great many dairymen are looking for the same information as our Nova Scotia correspondent asks. In fact we would like to learn which is the best and cheapest separator, but we do not expect the answer in the near future. The question is about as difficult to answer as to decide who has the best wife. We have heard this separator question put to operators of several kinds of separators in dairy schools, and the answer invariably given is that all of the leading separators have their superior points, but none excel all others in all points. In the same dairy schools different members of the staff will be found differing in their opinion as to which is the best separator. Among the best may be mentioned the following: American, Alpha, Melotte, Alexandra, and others. While the first cost may seem high for a good separator, it is considered a profitable investment to one who conducts a dairy of from six cows upwards, not only in the extra quantity of cream secured, but in the uniformly better condition of this product, and other advantages which have been pointed out in these columns by dairymen and dairywomen who have tried different methods of creaming milk.]

INSPECTORS OF HACKNEYS.

A. Mc., Wellington Co., Ont.:—"In your issue of 20th Feb. I see by Mr. H. Wade's answer to questions by a Lanark subscriber regarding rules of registration, that the plan adopted in regard to Hackney horses is to start with an inspected mare, then two crosses from such a mare would be what he calls "full registered." Now, the question I wish to ask is, By whom should such a mare be inspected? By answering this question in your issue of April 5th you will greatly oblige."

[The Hackney Association has a number of inspectors appointed. The nearest to this gentleman would be Mr. O. Sorby, of Guelph, or Mr. Adam Beck, of London. Besides these gentlemen, we have Mr. Robt. Beith, M. P., Bowmanville; Robert Graham, Claremont, Ont.; H. N. Crossley, Rosseau, Ont.; A. Wilson, Paris; Jas. A. Cochrane, Hillhurst, Que. H. WADE, Secretary.]

PROTECTION FOR WATER TANK WANTED.

OLD SUBSCRIBER, Waterloo Co., Ont.:—"Because of the severe frost some time ago a great many have had their water system frozen up. Would you or some of your numerous readers let me know through the columns of the ADVOCATE a way to protect a wooden tank so as to keep the water in it from freezing, the tank being in a stone building where no stock is kept?"

[A method that suggests itself to us, although we have had no occasion to adopt it, would be to surround the tank with a wall of lumber, leaving eight inches to a foot of space between it and the tank in which to pack sawdust, shavings, or chaff well packed in. We hope readers will suggest a satisfactory plan to keep out the frost.]

FEED FOR YOUNG LAMBS.

J. C. W., Beaver Lake, Alta.:—"Please inform me in your valuable magazine what would be the best feed to raise lambs on where there is a scarcity of milk? That is, where we have the misfortune to lose the mothers."

[Young lambs that have lost their mothers, and cannot be put to suckle other ewes, must be fed with cow's milk until they are three or four months old. The milk should be newly drawn from the cow, or warmed to the same degree of heat as new milk. It may be fed to them through rubber teats similar to those used for infants. These can be got at any drug store. When about three to four weeks old the lambs will begin to nibble nice green hay, crushed oats, bran or finely-ground linseed cake, which they should receive. When grass is ready there will be no difficulty, but the above foods may advantageously be continued for some time thereafter.

[See FARMER'S ADVOCATE, March 20th issue, page 144, for detailed instructions in raising pet lambs.—ED.]

EWES REJECTING LAMBS—STRAW FOR MANURE—SACCALINE A FAILURE.

C. S., Grey Co., Ont.:—"1. Could you or any of your innumerable readers give me any information through your pages on making ewes become attached to their lambs? I have four ewes with eight lambs, three of which ewes will only sustain one lamb each. One of the ewes in particular took care of her lambs till they were about two days old, when she rejected one. I have heard of putting some sort of drugs on the lambs, but have forgotten what it is. Is there any such satisfactory material?"

"2. Is dry straw as valuable to put on the land for manure as when the same amount is fed to stock and then drawn out?"

"3. I saw an inquiry, I think it was in your columns, some weeks ago on saccaline, the new forage plant, to which I have been watching for a reply, but have seen none. I tried it for two years with absolutely no success. The second year I tried the seed in the same manner as tomato seeds, but after the plants grew about an inch or an inch and a half high they dwindled away. Would like to hear of the experience of somebody else?"

[1. The plan that we have adopted with ewes that rejected their lambs is to put the ewe in stocks for a few days in a small pen where the lambs may be kept close to her. Drive down two round, smooth stakes firmly, about five inches apart. Put the ewe's head through, and tie a rope across near the floor and another at the top of the stakes, holding them close enough that she cannot extricate her head. This need not interfere with her comfort, but it will give the lambs a show. It is claimed a good plan to cut off the lambs' tails, and allow the blood of the favorite lamb to fall on the back of the other one. It is also recommended to tie a dog in the pen with the ewe and lambs, which will cause her to protect her family and thus gain an affection for both of them. We know of no drug to apply.

2. Straw loses a small proportion of its fertilizing value by passing through the digestive system of animals, but it is rendered much more concentrated and suitable for plant food. An application of dry straw to heavy clay land would improve its mechanical condition by preventing it from baking together, but in a dry season it would be liable to dry out severely.

3. In 1890 the FARMER'S ADVOCATE tested saccaline, and found it as much of a failure as our correspondent has done. We published our experience with it in our volume of that year.]

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT.

Following were the prices lately current, with comparisons two weeks and one and two years ago:

	Extreme prices now.	Two weeks ago.	1888.	1897.
Beef cattle.				
1500 lbs. up.....	\$4 70 to \$6 00	\$5 85	\$5 50	\$5 40
1330 to 1500 lbs.....	4 40 "	5 75	5 75	5 25
1200 to 1350 lbs.....	4 00 "	5 60	5 30	5 25
1030 to 1200 lbs.....	3 85 "	5 40	5 35	5 00
900 to 1030 lbs.....	3 80 "	5 15	5 20	5 00
Fed Westerns.....	4 25 "	5 60	5 70	5 00
Hogs.				
Mixed.....	3 50 "	3 95	3 92	4 02
Heavy.....	3 50 "	4 00	3 95	4 10
Light.....	3 50 "	3 90	3 85	4 20
Pigs.....	3 10 "	3 80	3 75	3 75
Sheep.				
Natives.....	3 00 "	5 00	4 65	4 75
Western.....	3 80 "	4 85	4 50	4 70
Lambs.....	4 00 "	5 90	5 10	5 75

The most notable thing in the cattle trade lately has been the marketing of the premium Texas cattle from the Fort Worth Fat Stock Show. It's a new thing to have high-grade, well-ripened cattle coming to market from the Lone Star State. They sold here at \$5 and \$6, and the top price was the highest since 1884, when \$6.25 was paid for Texas, and in 1882 \$6.30 was paid. However, at that time best "native" cattle were selling \$2 to \$3 per 100 lbs. above the best Texans that were coming in those days. A car of three-year-old steers, weighing alive 1,543 lbs., weighed dressed 984 lbs., thus yielding 63.83 per cent., while 19 two-year-old steers, weighing on the hoof 1,041 lbs., dressed 618 lbs., or 59.40 per cent. Sixteen head sold at \$5.50, average 1,471 lbs., live weight, dressed 890 lbs. each, or 60.55 per cent.; 33 head sold at \$5.30, average 1,449 lbs., live weight, dressed 884 lbs. each, or 61 per cent.; 48 head sold at \$5.25, average 1,448 lbs., live weight, dressed 880 lbs. each, or 60.76 per cent. The State of Texas already has more pure-bred cattle than any other State in the Union, but the State is so large that it will take a long time to grade up even a small part of the cattle in that great State. Most of the cattle above noted had been fed upon cotton-seed meal, with corn and "shorts" mixed to some extent. An exporter recently got a cargo of cattle in Texas at about \$4.00 per 100 lbs. to send via New Orleans.

The packing business is on the increase. The Schwarzschild & Sulzberger Packing Company will build a packing house on the lands of the Union Stock Yards Company. Their capacity will be 1,000 cattle, 3,000 hogs, and 1,500 sheep daily. Armour & Co. are building a power and lighting plant which will cost about \$750,000, in addition to building several immense warehouses, the total expenditure involving about \$1,000,000. Swift & Co. are also building large warehouses, costing hundreds of thousands, while the Anglo-American Packing Co. is also building a large central power and lighting plant. A report from Milwaukee says the meat packers are preparing for one of the best seasons they have ever had. They say there is a general and most satisfactory improvement in the packing business. They do not anticipate any sharp advance in prices, but they do look for a firm market.

Sheep feeders who lost at the rate of one dollar per head the first two months of 1890 have a ray of hope in present prices, which on the Chicago market are more than a dollar per 100 pounds above the disheartening prices of February. Fed Mexican lambs sold here recently at \$5.90, against \$4.90 on the 1st of March. The improvement in the demand for good mutton has been marked, due partly to the fact that good beef is scarce and hard to get. Some of the sheepmen declare that the widespread discussion of army beef has rounded largely to the advantage of sheep and lambs. The sheep situation is generally in much more satisfactory shape, and feeders who have held on are getting their reward.

The hog situation is showing very little change. The general supply is fairly large, and the demand is good. The low prices tend to a large consumption.

Montreal Markets.

Cattle.—In our last report we quoted the pick of the cattle on this market at 54c., but prices since then have firmed fully a quarter cent on those figures, and 54c. per lb. has been paid in many cases, but from this high figure values have again receded, and on the last market 53c. was the highest paid. Of course, in mentioning these quotations, they are for the very best beefs on the market, with poorer grades a shade lower than quality and weight would appear to justify. But the demand is strong for the tops, while only indifferent for medium grades, which range in price from 47c. to 54c. for good to choice; fair to medium, 34c. to 44c.; with common as low as 24c. per lb.

Sheep and Lambs.—The receipts of small meats have been under the demand right along, and all offerings are promptly picked up by butchers, but prices for sheep do not seem to get beyond the 34c. to 36c. per lb. mark, while for good spring lambs all the way from \$3 to \$8 each has been paid, according to the size and quality.

Calves.—Receipts of calves are continually growing heavier, but as yet the demand has absorbed all offerings at pretty fair prices, ranging from \$1.50 to \$8 each, according to size and quality.

Hides and Skins.—In our last we drew attention to the effort on the part of hide dealers to force prices of green hides down, notwithstanding the fact that at all other centers of distribution the hide market maintained its firmness. This they have succeeded in doing—first a drop of 1c., followed last week by a further decline of 1c., bringing prices down to the basis of 84c. per lb. for No. 1, 74c. for No. 2, 64c. for No. 3 green-salted steer hides. However, as prices have eased off in other localities this week, the decline will not be resented so much. Calfskins are held steady, under a good keen demand, at 10c. for No. 1, 8c. for No. 2. Lambskins, 70c. to 75c.; clipped lambs, 10c. each.

British Markets.

Cables this week were of a nature to please shippers, as the recent decline had made quite a difference in the returns of cabled sales, and the advance of 1c. to 1c. on Monday last was welcomed by exporters. Light supplies caused the reaction. In London choice States steers brought 12 1/2c.; Argentines, 11 1/2c.; sheep, 11c. to 12c. per pound. At Liverpool, States beefs made 12c.; Canadians, 11 1/2c. to 12c.; and Canadian lambs, 15c. per pound, all quotations being for dressed meat, sinking the offal.



AN AMERICAN GIRL IN LONDON.

BY SARA JEANNETTE DUNCAN.

(Continued from page 147.)

"Cuckoo!" The bird caught it from the piping of the very first lover's very first love-dream—how well he must have listened! "Cuckoo!"

I bade Miss Dorothy Stacy come in when I heard her knock and voice; and she seemed to bring with her, in her innocent strength and youth and pinkness, a very fair and harmonious counterpart of the crows and cuckoos. She came to know if I wasn't coming down to tea. "Listen!" I said, as the sweet cry came again. "I was waiting till he had finished." It was better than no excuse at all.

"I think I can show you from here where I suspect their nest to be," answered Miss Dorothy sympathetically, and she slipped her arm round my waist as we looked out of the window together in the suspected direction. Then you don't find them tiresome? Some people do, you know.

"No," I said, "I don't." And then Miss Dorothy confided to me that she was very glad, "for you know," she said, "one can't like people who find cuckoos tiresome;" and we concluded that we really must go down to tea. At that point, however, I was obliged to ask Miss Dorothy to wait until I did a little toward improving my appearance. I had quite forgotten, between the cuckoos and the crows, that I had come up principally to wash my face.

"You met our cousin on the ship crossing the Atlantic, didn't you?" the eldest Miss Stacy remarked, enthusiastically, over the teapot. "How delightfully romantic to make a friend like that, I mean, on a ship in the middle of the ocean! Didn't you always feel perfectly comfortable afterward, as if no matter what happened, he would be sure to save you?"

"Kitty!" said Mrs. Stacy from the sofa, in a tone of helpless rebuke.

"Mother darling!" said Kitty, "I do beg your pardon! Your daughter always speaks first and thinks afterward, doesn't she, sweetest mother? But you must have had that feeling," Miss Stacy continued to me, "I know you had!"

"Oh, no!" I returned. "It was rather an awkward situation—I had no wish to disparage Miss Stacy's cousin's heroism which, nevertheless, I had not relied upon in the least. 'I don't think I thought about being drowned!' I said.

"That proves it!" she cried in triumph. "Your confidence was so perfect that it was unconscious! Sweetest mother—there—I won't say another word; not another syllable, darling mother, shall I send your daughter's lips. But one does like to show one's self in the right, doesn't one, sweet mother!" And Mrs. Stacy surrendered to an impulsive volume of embraces which descended from behind the sofa chiefly upon the back of her neck.

It was naturally Dorothy who took me out to see the garden—sweet, shy Dorothy, who seemed so completely to have grown in a garden that Lady Torquillin, when she brought her pink cheeks to gladden the faded in the dogwood mansions, dubbed her "the Wild Rose" at once. At any rate Dorothy had always lived just here beside her garden and never anywhere else, for she told me so in explaining her affection for it. I thought of the number of times we had moved in Chicago, and sighed.

It was a spare garden, shut in from the road and the neighbors by that high old red brick wall. There were the daisies in the grass to begin with—all over, by hundreds and thousands, turning their bright little white-and-yellow faces up at me and saying something; I don't know quite what. Dorothy remarked it was really disgraceful, so many of them, and Peters should certainly mow them all down in the morning—by which her pretty lips gave me a keen pang. "Oh!" I said, "what a pity!" Yes, she said, "reluctantly," they are dear things, but they're very untidy. The worst of Peter is, she went on with a shade of reflection, "that we are obliged to keep at him."

I dare say you don't think so much of daisies in the grass—you have always had so many. You should have been brought up on dandelions instead—in Chicago!

Then there were all the sweet spring English flowers growing in little companies under the warm brick wall—violets and pansies and yellow daffodils, and in one corner a tall, brave array of anemones, red and purple and white. And against the wall, rose bushes and an ancient fig tree; and further on, all massed and tangled in its own dark-green shadows, the ivy, pouring out its abundant heart to drape and soften the other angle and catch the golden rain of the laburnum that hung over. And this English Dorothy, with her yellow hair and young-eyed innocence, the essence and the flower of it all.

Near the stables, in our roundabout ramble to the kitchen-garden, Dorothy showed me, with seriousness, a secluded corner, holding two small mounds and two small wooden tablets. On one the head of a spaniel was carved painstakingly, and painted with the inscription, "Here Lies a Friend."

The second tablet had no bas-relief and a briefer legend—"Here Lies Another." "Jaak," said she, with a shade of retrospection, "and Jingo: Jack died in—let me see—eighteen eighty-five; Jingo two years later, in eighteen eighty-seven. I didn't do Jingo's picture," Miss Dorothy went on, pensively. "It wasn't really necessary, they were so very much alike."

"I have a letter to send," said Miss Dorothy, "and as we go to the post office you shall see Hallington."

So we went through the gates that closed upon this dear inner world into the winding road. It led us past the Green Lion, amiably couchant upon a creaking sign that swung from a yellow cottage, past a cluster of little houses with great brooding roofs of straw, past the village school, in a somewhat bigger cottage, in one end whereof the school-mistress dwelt and looked out upon her lavender and rue, to the post office at the top of the hill, where the little woman inside, in a round-frilled cap and spectacles and her shawl pinned tidily across her breast, sold buttons and thread and "sweeties" and ginger ale, and other things. My eye lighted with surprise upon a row of very familiar wedge-shaped tins, all blue and red. They contained corned beef, and they came from Chicago. "I know the gentleman who puts those up very well," I said to Miss Dorothy Stacy. "Mr. W. P. Hitt, of Chicago. He is a great friend of poppa's."

"Really!" said she, with a slight embarrassment. "Does he does he do it himself? How clever of him!"

On the way back through the village of Hallington we met several stolid little girls by ones and twos and threes, and every little girl as we approached suddenly lowered her person and her petticoats by about six inches and brought it up again in a perfectly straight line, and without any change of expression whatever. It seemed to me a singular and most amusing demonstration, and Miss Dorothy explained that it was a courtesy—a very proper mark of respect. "But surely," she said, "your little cottager girls in America courtesy to the ladies and gentlemen they meet!" And Miss Dorothy found it difficult to understand just why the courtesy was not a popular genuflection in America, even if we had any little cottager girls to practice it, which I did not think we had exactly.

XXVI.

I am writing this last chapter in the top berth of a saloon cabin on board the Cunard steamship "Etruria," which left Liverpool June 25, and is now three days out. From which it will be seen that I am going home.

Nothing has happened there, you will be glad to hear, perhaps. Poppa and mamma and all the dear ones of Mrs. Porter's Christmas card are quite in their usual state of health. The elections are not on at present, so there is no family depression in connection with poppa's political future. I am not running away from the English climate either, which had begun shortly before I left to be rather agreeable. I have been obliged to leave England on account of a misunderstanding.

In order that you should quite see that nobody was particularly to blame, I am afraid I shall have to be very explicit, which is in a way disagreeable. But Lady Torquillin said the day came away that I would have been better if I had been explicit sooner, and shall certainly never postpone the duty again. So that, although I should much prefer to let my English experiences close happily and gloriously with going to court, I feel compelled to add here, in the contracted space at my disposal, the true story of how I went to dine with Mr. Charles Mafferton's father and mother and brothers and sisters in Hertford Street, Mayfair.

It occurred almost as soon as the family returned from the south of France, where they had been all spring, you remember, from considerations affecting the health of the eldest Miss Mafferton, with whom I had kept up, from time to time, a very pleasant correspondence. One day, about three weeks after the "drawing-room," when Lady Torquillin and I could scarcely ever rely upon an afternoon at home, we came in to find all the Mafferton cards again. There was a note, too, in which Mrs. Mafferton begged Lady Torquillin to waive ceremony and bring me to dine with them the following evening.

"You can guess," said Mrs. Mafferton, "how anxious we must be to see her."

There was a postscript to the invitation, which said that although Charlie, as we probably knew, was unfortunately out of town for a day or two, Mrs. Mafferton hoped he would be back in the course of the evening.

"Well, my dear," said Lady Torquillin, "it's easily seen that I can't go, with those Watkins people coming here. But you shall—I'll let you off the Watkinses. It isn't really fair to the Maffertons to keep them waiting any longer. I'll write at once and say so. Of course," Lady Torquillin went on, "under ordinary circumstances I shouldn't think of letting you go out to dinner alone, but in this case—there is sure to be only the family, you know—I don't think it matters."

So Lady Torquillin wrote, and when the time came, lent me Charlotte to go with me in a hansom to Hertford Street, Mayfair.

"Be sure you bring me back a full and particular account of how they all behave, child," said she, as she locked me over after my toilet was made. "I shall be interested to hear."

A massive butler let me into the usual narrow, high-ceiled Mayfair hall, richly lighted and luxurious; the usual convenient maid in a white cap appeared at the first landing to show the way to the proper room for my wraps. After Lady Torquillin's expression of interest in how they behaved, I had been wondering whether the Maffertons had any idiosyncrasies, and I did not waste any unnecessary time in final touches before going down to see. I like people with idiosyncrasies, and lately I had grown accustomed to those of the English nation. As a whole, they no longer struck me forcibly. I quite anticipated some fresh ones, and the opportunity of observing them closely.

The drawing-room seemed, as I went in, to be full of Maffertons. There were more Maffertons than china plates on the wall, than patterns on the carpet. And yet there were only the four young ladies and their mother and father. The effect was produced, I think, by the great similarity between the Misses Mafferton. Not in actual face or figure—there were quite perceptible differences there. The likeness lay in an undefinable shade of manner and behavior, in the subdued and unobtrusive way in which they all got up and looked at me and at their many waiting until it should be entirely proper for them to come forward.

Mrs. Mafferton was a very stout old lady, with what is called a fine face. She wore a good many old-fashioned rings, and a wide lace collar over her expensive black silk, and as she came heavily forward to meet me she held out both her hands and beamed upon me—not an impulsive beam, however; rather a beam of welcome and attention in it.

"You are welcome, Miss Wick. Indeed, we have been looking forward to this. I think you ought to let me give you a kiss!"

Of course I did let Mrs. Mafferton give me a kiss—it was impossible to refuse. But I thought myself singularly favored—it did not seem at all in accordance with the character of the family to fall upon the neck of a stranger and embrace her by way of welcoming her to dinner. I was still further of that opinion when each of the Misses Mafferton followed the example of their mamma and saluted me tenderly on the same cheek. But I immediately put it down to be an idiosyncrasy.

"We are so glad to see you at last!" said the eldest.

"Yes, indeed!" said the second.

"We really do think we never should," said the third.

"We really did!" said the fourth.

"Papa," said Mrs. Mafferton, "this is Miss Wick, of whom we have all heard so much."

She spoke very close to the ear of an old gentleman in an arm-chair screened from the fire, with one leg stretched out on a rest; but he did not understand, and she had to say it over again.

"Miss Wick, of whom we have all heard so much. Poor dear! he does not hear very well," Mrs. Mafferton added to me. "You must use the speaking-trumpet, I fear, Miss Wick."

"Well," said old Mr. Mafferton, after shaking hands with me and apologizing for not rising, "if this is Miss Wick, I don't see why I shouldn't have a kiss, too."

At which Mrs. Mafferton and all the young ladies laughed and protested. "Oh, fy, papa!" For my part, I began to think this idiosyncrasy singularly common to the family.

Then the eldest Miss Mafferton put one end of a long black speaking-trumpet into my hand, and Mr. Mafferton, seeing her do this, applied the other to his ear. I had nothing whatever to say, but overcome with the fear of seeming rude, I was raising it to my lips and thinking hard when I felt two anxious hands upon my arm.

"Do excuse us," exclaimed a Miss Mafferton, "but if you wouldn't mind holding it just a little further from your lips, please! We are obliged to tell everybody. Otherwise the voice makes quite a distressing noise in his poor ears."

At which every semblance of an idea left me instantly. Yet I must say something—Mr. Mafferton was waiting at the other end of the tube. This was the imbecility I gave expression to:

"I came here in a cab!" I said. It was impossible to think of anything else.

That was not a very propitious beginning, and Mr. Mafferton's further apology for not being able to take me down to dinner, on the ground that he had to be taken down by the butler himself, did not help matters in the very least. At dinner I sat on Mr. Mafferton's right, with the coiling length of the speaking-trumpet between us. The brother came in just before we went down, a thin young man with a rugged beard—a curate. Of course, a curate being there, we began with a blessing.

Then Mrs. Mafferton said: "I hope you won't mind our not having asked anyone else, Miss Wick. We were selfish enough to want you, this first evening, all to ourselves."

It was certainly the Mafferton idiosyncrasy to be extravagantly kind. I returned that nothing could have been more delightful for me.

"Except that we think that dear naughty Lady Torquillin should have come too!" said the youngest Miss Mafferton. It began to seem to me that none of these young ladies considered

themselves entitled to an opinion in the first person singular. An idea appeared to be, as it were, a family product.

"She was very sorry," I said.

"And so, I am sure, are we," remarked Mrs. Mafferton, graciously, from the other end of the table. It was through dear Lady Torquillin, I believe, that you first met our son, Miss Wick?"

I began to feel profoundly uncomfortable—I scarcely knew exactly why. It became apparent to me that there was something in the domestic atmosphere with which I was out of sympathy. I thought the four Miss Maffertons looked at me with too much interest, and I believed that the curate was purposely distracting himself with his soup. I corroborated what Mrs. Mafferton had said rather awkwardly, and caught one Miss Mafferton looking at another in a way that expressed distinct sympathy for me.

I was quite relieved when Mrs. Mafferton changed the subject by saying, "So you are an American, Miss Wick?" and I was able to tell her something about Chicago and our methods of railway traveling. Mrs. Mafferton was very pleasant about Americans; she said she always found them nice, kind-hearted people. The curate said thoughtfully, crumbling his bread, that we had a vast country over there.

"Francis!" exclaimed the Miss Mafferton who sat next to him, playfully abstracting the crumbs, "you know that's naughty of you! I'm afraid you've come to a very nervous family, Miss Wick."

I felt myself blushing abominably. The situation all at once defined itself and became terrible. How could I tell the Maffertons, assembled there around their dinner table, that I was not coming to their family?

"Burgundy, miss?"

How could I do anything but sip my claret with immoderate absorption, and say that nervous disorders did sometimes run in families, or something equally imbecile!

"But Charlie's nerves are as strong as possible!" said another Miss Mafferton reproachfully to her sister.

We had other general conversation, and I spoke into Mr. Mafferton's trumpet several times with a certain amount of coherence; but I remember only the points which struck me as of special interest at the time. Among them was the proposal that if I were willing Mrs. Mafferton should drive me on Tuesday week (that would be to-day) to see an invalid married sister living in Hampstead who was most anxious to welcome me. How could I say I was not willing?

Then after dinner, in the drawing-room, Mrs. Mafferton took me aside "for a little chat," and told me what a good son Charles had always been, and showed me several photographs of him at earlier stages, from the time he wore a sash and pinafore. Even then, I remember, he looked a serious person.

After which I had another little chat with two of the Misses Mafferton together, who explained what a devoted brother they had always had in Charlie.

"We are so glad you've been kind to him," they said, impulsively. "Of course we haven't seen him yet since our return, but his letters have told us that much."

I tried in vain to rack my brain for occasions on which I had been kind to Mr. Charles Mafferton, and longed for an attack of faintness or severe headache.

"Indeed," I said, "it was always your brother who was kind—to Lady Torquillin and to me."

At which the young ladies smiled consciously, and said something about that being perfectly natural. Then, just as I was wondering whether I absolutely must wait for Charles to arrive in a cab to take me home, as Lady Torquillin had arranged, and as the third Miss Mafferton was telling me how noble but how uninteresting it was of Francis to take up extreme ritualistic views and vow himself to celibacy, the door-bell rang.

"There's Charlie now!" exclaimed the Misses Mafferton all together.

"I must really go," I said, precipitately. "I—I promised Lady Torquillin to be home early—noting with despair by the gold clock under glass on the mantel that it was only a quarter to ten—and the American mail goes out to-morrow—at least I think it does—and—Good-night, Mrs. Mafferton! Good-night, Mr. Mafferton."

I said it very rapidly, and although they were all kind enough to meet my departure with protest, I think it was evident to them that for some reason or other I really must go. The young ladies exchanged glances of understanding. I think their idea was that I dreaded the embarrassment of meeting Mr. Charles Mafferton before his family. Two of them came upstairs with me to get my wraps, and assured me in various indirect ways that they quite understood—it was awkward.

Coming down we met Mr. Charles Mafferton at the door of the drawing-room. The Misses Mafferton, who accompanied me, turned quite pale when they heard me assure their brother that there was not the slightest necessity that he should accompany me home. I could not persuade him of this, however, and we drove away together.

I am afraid I cannot possibly report the conversation that took place between Mr. Mafferton and myself in the cab. Looking back upon it, I find it difficult to understand clearly, as I dare say he does if he ever thinks about it. After I had made him see quite plainly that it was utterly, absolutely impossible (which was not easy), he left me to infer that I had been inconsistent, though I am sure I could make no self-accusation which would be more baseless. Privately I thought the inconsistency was his, and that it was of the most glaring description. I am of opinion, with all due respect to your English customs, that if Mr. Mafferton desired to marry me, he should have taken me, to some extent, into his confidence about it. He should not have made Lady Torquillin the sole repository of the idea. A single bunch of roses or basket of fruit or box of candy addressed to me especially would have been enough to give my thoughts a proper direction in the matter. Then I would have known what to do. But I always seemed to make an unavoidable second in Mr. Mafferton's attentions, and accepted my share of them generally with an air of compunction. And I may say, without any malice at all, that to guess of one's own accord at a developing sentiment within the breast of Mr. Mafferton would be an unlikely thing to occupy the liveliest imagination.

Perhaps Mr. Mafferton did not know how his family had intended to behave to me. At all events he offered no apology for their conduct. I may say that the only thing of any consequence that resulted from our drive was the resolution which I am carrying out on board the steamship "Etruria" to-day.

The worst of it was Lady Torquillin's scolding next morning—not that she said anything unkind, but because it gave me the idea that I had treated Lady Torquillin badly. She seemed to think that I should have told her in the very beginning that I was engaged to Mr. Arthur Greenleaf Page, of the Yale University staff. She seemed to think that I should have married until Christmas, and one never can tell what may happen. Young ladies do not speak of these things quite so much in America as you do in England, I think. They are not so openly known and discussed. I must apologize to myself for bringing Mr. Page in even at this stage, but it seemed to be unavoidable.

I don't know at all, by the way, what Arthur will say to this last of my English experiences. He may not consider it as "formative," as he hopes the others would be.

There is only one thing that makes the thought endurable for an instant—it would have been nice to be related to the Staacs.

Just before sailing the purser supplied me with dear consolation in the shape of a letter from Miss Peter Corke. It was a thing easily bewailing, advising, sternly questioning, comically reproaching, a little sad and deprecating by accident, then rallying to herself again with all sorts of funny reproaches.

"I meant to have done so much, and I've done so little!" was the burden of it, recurring often—"I meant to have done so much, and I've done so little!"

Dear Peter! She can't possibly know how much she did do, though I'm taking my unformed mind back to a comparatively immature civilization, and shall probably continue to

attend a church where they use spring-edged cushions and incandescent burners. Peter's England will always be the true England to me. I shall be able to realize it again easily with some photographs and Hare's "Walks in London," though I am afraid I have got all her delightful old moss-grown facts and figures mixed up so that I couldn't write them over again, without assistance, as intelligently as before. And Peter says she doesn't mind going on in my second volume, if only I won't print it; which is very good of her, when one thinks that the second volume will be American—and never written at all, but only lived, very quietly, under the maples at Yale. I hope she may be found in the last chapter of that one too. Dear Peter!

[THE END.]

Two Points of View.

(From the Century.)

HIS.

When Biddy goes, what rapture fills
My being's core! New luster glows
From hearth and wall and window-sill;
These things get dusted, I suppose,
When Biddy goes.

When Biddy goes the steak is rare;
My morning cup her absence shows;
The kettle laughs, the range fire glows;
The omelette's served without compare;
I kiss the dear cook 'neath the rose,
When Biddy goes.

When Biddy goes, my soul's my own,
My house my castle; plenty flows;
I gain in actual adipose,
My wife's a queen upon her throne,
Dispensing comfort, joy, repose,
When Biddy goes.

When Biddy goes, the sweet old ways
Come back to mock this day of shows—

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

"Our Lady of the Snow's" brief reign is over, and Our Lady of the Sun now wields the scepter. In obedience to the touch of her magic wand, the frost-bound streamlets break from their bondage and rush merrily, sparkingly, rejoicingly on their way, joining their cheery songs to those of our faithful little friends, the birds, and making earth glad with their music. The sleeping flowers awake at the welcome sound, and creeping from their winter home, lift their bright faces skyward in silent gratefulness.

"This earth is full of beauty,
Like other worlds above,
And if we did our duty
It might be full of love."

In the country especially do we realize the beauty of earth. Nature, it is true, is impartial in the distribution of her gifts, but in the town man holds sway, and Nature is crowded almost out of existence. And yet town people *pity* those who live in the country! A lady writing to a friend of mine said: "I wish you were living here, where your children could have so many advantages that they cannot enjoy in the country." Yes, they could always go dryshod to school, they could frequent theatres (and often see and hear what, alas! is most unprofitable), they could live at a faster rate than on the farm, but at what cost? They

Boiling Water Without Fire.

It is possible to make a pail of water boil without putting it on the fire and without applying external heat to it in any way. In fact, you can make a pail of water boil by simply stirring it with a wooden paddle. The feat was recently performed in the physical laboratory of Johns Hopkins University, in Baltimore, Md., and any one may do it with a little trouble and perseverance.

All you have to do is to place your water in a pail—it may be ice water if necessary—and stir it with a wooden paddle. If you keep at it long enough it will certainly boil. Five hours of constant and rapid stirring are sufficient to perform the feat successfully. The water will, after a time, grow warm, and then it will grow hot—so hot, in fact, that you cannot hold your hand in it—and finally it will boil. Prof. Ames, of Johns Hopkins, annually illustrates some of the phenomena of heat by having one of his students perform the trick in front of his class. It is a tiresome job, but it is perfectly feasible.

The point which Prof. Ames wishes to illustrate is what is known as the mechanical equivalent of heat. It requires just so many foot pounds of work to develop a given quantity of heat. By turning the paddle in the water at a regular speed it is possible to find out just how much work is required to raise the temperature of water one degree. The best measurement so far made, and, in fact, the one which is accepted as the standard of the world, is that which was measured in Johns Hopkins University.



"SECRETS."

The mutual service that love pays,
The thrift, the cheer, the jest, the praise,
The hominess one's walls inclose—
When Biddy goes

But this reflection makes me sad;
Our bliss may end in no one knows
What dolor; for our urgent ad-
vertisement dogs her flying toes,
When Biddy goes.

HERS.

When Biddy leaves, my courage mounts
To meet the test. The house receives
A scrubbing straight from floor to eaves.
On each neglected spot I pounce,
Split all my nails and spoil a founce,
When Biddy leaves.

When Biddy leaves, I write "Endure"
Upon heart that swells and heaves;
I dig out corners with a skewer,
While every bone and muscle grieves,
When Biddy leaves.

When Biddy leaves, I joke and smile
And chat, and poor dear John believes
I like it all! Alas! the while
I feel Time gather in his shaves
Till some new maid my doom relieves,
When Biddy leaves.

When Biddy leaves—ah! there's the rub—
Such webs of work life round me weaves
I do not read, I lose my club,
I dread a call, I loathe each tub
And broom with hate no man conceives,
When Biddy leaves!

would live as do the majority of town-bred youths and maidens—largely for the few so-called pleasures, eagerly grasped as they go fleeting by, and be filled with an insatiable longing for more. This constant round of excitement must have an enervating effect. The votaries of pleasure, like the victims of a drug, become unable to live without it, and in time the beautiful restfulness of home life is sacrificed for it.

The hopeful, buoyant spirit that so gleefully leaves the country, thinking to discover Elysium in the wonderful city, too frequently finds the coveted prize just beyond his grasp. The following is an extract from a letter I recently received from a young friend of mine, whom circumstances compelled to remove from the old home and take up her abode in the city: "The world isn't nearly as good a place as I thought it. Perhaps it seems worse to me because I have always shut my eyes and endeavored to avoid anything coarse or vulgar. The country, too, is purer than the town—oh, so much purer and sweeter! I love the country, and want to move all these miserable human structures from my sight and view again the hills and valleys. Sometimes my eyes fairly ache for an uninterrupted view."

Thus I would advise you who contemplate leaving home to think seriously of what you are about to do—not to overrate the ostensible advantages of the town and overlook the greater ones that surround you in your present situation.

Your loving — UNCLE TOM.

"Secrets."

These two young damsels seem quite oblivious as to the accepted idea that whispering in public is prohibited; but I rather think that they do not consider that pensive-looking young man as "public," from the very open way in which the whispering of "secrets" is carried on! That the "secrets" have something to do with this same young man is also very evident, and his assumed air of unconsciousness would deceive—well, *very few!* The attitudes are remarkably good, especially that of the youth—so delicately flicking a speck of dust off his hat. He has certainly come to call—perhaps to say something *very important*—and I wonder to which young lady? There is something in the face of the dark one—a subtle touch of seriousness—which leads one to suppose that she is the bright, particular star of this swain's aspirations. It is difficult to fathom the actual thoughts of these three; but, from the expressions of their faces, I fancy the "secrets" are not of dire intent, and that before very long there will be a wedding!

Tell your "secrets," pretty maiden—
Whisper close into her ear;
These "secrets" are not evil-laden,
So, waiting swain, you need not fear.
"Sure," he thinks, "she'll stay forever—
Such a mischief!" But she's kind,
And does not mean for long to sever
These two hearts that Love doth bind.
Soon she'll say there's something great
That she must do at once—then go—
Ah, then!—but I anticipate—
It's very like—I told you so!



A Queer Little Boy.

There's a queer little boy (so I have been told)
Who is worth every ounce of his weight in gold,
Who always says "Thank you," and "If you please,"
And has never been known to beg or to tease
When his mother said "No, you can't go, my son,
There's work in the garden that has to be done."

For he'd much rather work and study than play,
And he never misses a lesson, they say.
He gets out of bed at the very first call,
So he never is late for breakfast at all.
He knows just where he left his books and his hat,
And his mittens and coat, and ball, and all that.

His smile's just as sweet when the school-bell he hears
As it is when the dinner-bell greets his ears.
He never runs through a house, nor slams a door,
Nor tracks in mud, nor makes trash on the floor.
His face is always most beautifully clean,
And his hands, the like of them never was seen!

Now, what is his name, and where does he dwell—
This queer little boy? I am sure I can't tell.
But if you would know, and will start right away,
And travel straight on without any delay,
Perhaps you will find him; though the truth I declare,
I never could find him myself anywhere.

"Can't You Talk?"

Dear little Jack! He has only lately found out the delights of conversation himself, and can hardly understand why his constant friend and companion does not respond intelligibly to his baby chatter. Yet they understand each other splendidly after all, for love hardly needs words to express itself. Certainly Dandy loves his young master,—you can't doubt it if you look at his dear old friendly face. Baby can talk enough for two, anyway, so there is less need for Dandy to trouble himself with the difficulties of the English language. Oh! he understands English well enough, but the words are so hard to pronounce, you know. What a pity some of these clever people who are finding out all sorts of wonderful things cannot learn to understand the language of dogs. However, in the meantime we may safely trust the little ones with their four-footed friends. They will learn no bad habits nor evil words from them; and may, if they are wise enough, learn many lessons of faith and love, of honesty and trustworthiness. C. D.

Making Time.

"I say, Fanny, do come here and play a game with me! Jack's gone off boating; he's a duffer at tennis, anyway, and you're first-rate," said Philip Marsden to his cousin late one summer evening when the twilight was already darkening over the lawn.

"But, Philip, I heard you say when you left the tea-table that you had all your lessons to learn still."

"Oh, stuff!" I'll easily make time before I go to bed."

"Philip," said his mother, an hour later, "what about your lessons; are they learnt?"

"Oh, they're all right, mother; I'm so awfully sleepy I couldn't learn a word now. I'll make time in the morning."

Seven o'clock struck with ringing chime next morning from the little clock on Philip's shelf. He started up in bed at the sound, with the sudden recollection of unprepared lessons. The rain slashed against his window. No sunshine this morning to coax him up and out, to go fishing with Jack, like yesterday. Philip yawned and then laid down again.

"I'll make time, somehow, before school," he muttered, and was soon fast asleep again, the last sound in his ears being the steady tick, tick, of the clock, telling him that the golden moments were passing away.

Now he was standing on the hearth listening to it.

"What a foolish boy you are," said the clock, "to fancy you can get back what you choose to throw away!"

"I didn't throw away anything," said Philip.

"You have thrown away thirty minutes since you went to sleep again this morning," said the clock.

"I can make them up again," answered Philip.

"Impossible," said the clock. "Time has gathered them safely away. He never comes back when he passes by. He cannot give back what he takes. He takes what you have ready to give him and never returns it."

"I want to learn my lessons, and I'll make time for them, I say, by and by," said Philip doggedly.

"That is just what you can't do," answered the clock. "Time runs on the minutes one by one; he never gives one in payment for another. If you don't use each moment as it comes, it never comes proper

work, you will be stealing another later on that belongs to something else that should be done, for you can never make time for what you lose. I keep telling you that forever, for that is my work. I never go back or stop for one single tick. If you lose time in idleness you lose it forever."

"It doesn't much matter, anyway," muttered Philip.

"It matters far more than you understand," replied the clock, "for God sends you the hours, not to waste in idleness or wrong-doing, but to be used for Him, and one day He will bid you give an account of how you have used them. If you lost a piece of money you would think it mattered, but you might find the money again. You can't borrow, earn, or 'make' time. It is passing away, slipping out of your hold minute by minute. One moment lost is lost forever and ever. The minutes grow into years. You can't bring back last year, or yesterday, or even the half-hour you are sleeping away now."

"Tick, tick, tick, whirr!" Clear and sharp chimed the half-hour—half past seven.

Philip woke up with a start. Only time to dress for breakfast now! He sat up in bed, and his brows met thoughtfully as his dream came back to him.

"Tick, tick," went the clock. "Time is passing; give it something worth keeping for you."

Philip took, with crimsoning face, a lower place in his class that morning; but one great lesson he had learned—the importance of time and the impossibility of "making" it.

Our Children's Manners --- Where are They?

Where are they? This sounds like a perplexing question, yet it seems to me that the answer is not far to find, and may be summed up in very few words. Children are—we all are—creatures of imitation, and, as a general rule, our youngsters will pick up the manners they see and are allowed to



"CAN'T YOU TALK?"

practise at home. It is of little use for a boy or girl to be taught manners at school only. (And here let me somewhat digress. In many schools manners are not taught, and generally for the simple reason that the teachers themselves have had this widespread disadvantage of seldom or never having paid attention to good manners in their own homes.)

To return: Even if politeness is taught in a school, of what avail is it when the children have simply no manners insisted upon by their parents at home? Why should a boy's mother be treated with the outrageous disrespect which one so often sees?

Many people are inclined to say, "Oh, we don't want city airs. Our Jim's not going to be a dude. I guess his manners will do." You are mistaken, my friends, I guess his manners won't do when he goes out into the world, but will most materially tell against him, especially in these days of rapidly increasing education and refinement. It is very easy to tell at a glance whether a young fellow has been carefully brought up at home, although there are, of course, unfortunate cases where all the training in the world is wasted; but I am not speaking of exceptions.

Now, for an instance: How few boys take off their caps when they enter the house, for just politeness sake! Mothers should insist from early childhood that a boy take off his cap whenever entering a room where she or his sisters are; in fact, where anybody is. The habit once formed will not be forgotten. A word now to the girls as well. How often does one see a girl remain seated when introduced to an elder person, or when an elder enters the room, and how many girls fail to jump up and get mother a chair? It is not that mother is not dear to them, nor do they look upon such things as a breach of good manners, but it is, and stands out unpleasantly when you come across the opposite behavior in some other young people. I regret to say that these manners often prevail

where one hardly expects them, and, I firmly believe, can be generally traced to the fountain-head of home laxity during extreme youth. Politeness is too often confused with formality, and what a mistake this is. I have always found that those sons and daughters who are in the most affectionate and closest companionship with their parents have ever their tenderness accompanied by a deep respect, a loving consideration and politeness which is always a beautiful sight to behold.

In these days of easy access to books and other methods of information there must be few people, even in the remotest country places, who do not know what decent manners are, but if there be any farmers and their wives who have been debarred in their own youth from observing any of these little politenesses of everyday life, always let them remember that "It is never too late to mend" is a wise old saying, and let them try to save their children from sinking into a hopeless roughness and rudeness, which is deplorable, and should have no place amongst our bright young Canadians who have so much to be proud of, and of whom our fair country is so proud. ROBIN.

A Gentleman.

I knew him for a gentleman
By signs that never fail;
His coat was rough and rather worn,
His cheeks were thin and pale—
A lad who had his way to make,
With little time for play;
I knew him for a gentleman
By certain signs to-day.

He met his mother on the street;
Off came his little hat.
My door was shut; he waited there
Until I heard him rap.
He took the bundle from my hand,
And when I dropped my pen,
He sprang to pick it up for me—
This gentleman of ten.

He does not push and crowd along;
His voice is gently pitched;
He does not fling his books about
As if he were bewitched.
He stands aside to let you pass;
He always shuts the door;
He runs on errands willingly
To forge and mill and store.

He thinks of you before himself,
He serves you if he can;
For, in whatever company,
The manners make the man.
At ten or forty, 'tis the same;
The manner tells the tale,
And I discern the gentleman
By signs that never fail.

Neglecting Treasures Near at Hand.

To often we undervalue, and even neglect, the good which is always within reach, just because it is so. It is said that Londoners seldom visit the Tower, St. Paul's Cathedral, or Westminster Abbey. Just because they always can go they never go—unless, perhaps, they have in charge a visitor who wants to see them. So in our social and spiritual surroundings there are neglected possibilities of strength and joy, of which we make nothing because they are so near, so accessible, so cheap, so destitute of the rarity we confuse with worth. The home, for instance, is too often undervalued by those who should find their constant delight in it. God has not given us many better things than the cluster of wholesome relationships and the cheerful and homely fellowship which make up the family. It may be, to one who knows how to value it, the unfailing source of good inspirations, the training school in every virtue, the refuge from the world's distracting agitations, the hospital whither to bring our wounded spirits for healing care. He who sees in it only a convenient sleeping and eating place has failed to learn the first lesson of homely wisdom—to value what lies near at hand and is free to all.

"Take the Safe Path."

"Take the safe path, dear father!
I'm coming after you,"
Rang out in silvery accents
From a dear boy hid from view.
The father climbed a mountain,
Precipitous and wild,
Nor dreamed that in his footsteps
Pressed close his only child.
His heart stood still one moment—
Then rose in prayer to God
To keep his boy from slipping
In the path his feet had trod;
And soon upon the summit
His darling child he pressed,
With rapture all unspoken,
Unto his throbbing breast.

"Take the safe path, dear father!"
Rings clearly out to-day
From many a little pilgrim
Upon life's rugged way.
They're pressing close behind you,
Oh, fathers, take good heed;
Their lives will closely copy
Your own, in word and deed.
"Take the safe path," ye fathers,
Nor ever dare to slip
The cup that seems so tempting
To many a youthful lip—
Oh, choose the path of virtue,
Then, if they follow you,
Your children's lives will also
Be noble, grand and true.

Puzzles.

[The following prizes are offered every quarter, beginning with months of April, July and October: For answers to puzzles during each quarter—1st prize, \$1.50; 2nd, \$1.00; 3rd, 75c. For original puzzles—1st, \$1.00; 2nd, 75c; 3rd, 50c. This column is open to all who comply with the following rules: Puzzles must be original—that is, must not be copied from other papers; they must be written on one side only of paper, and sender's name signed to each puzzle; answers must accompany all original puzzles (preferably on separate paper). It is not necessary to write out puzzles to which you send answers—the number of puzzle and date of issue is sufficient. Partial answers will receive credit. Work intended for first issue of any month should reach Pakenham not later than the 15th of the month previous; that for second issue not later than the 5th of that month. Leave envelope open, mark "Printer's Copy" in one corner, and letter will come for one cent. Address all work to Miss Ada Armand, Pakenham, Ont.]

1—LETTER RIDDLES.

- (1) Why is the letter S dangerous to put on the head of one of your parents?
(2) Why is the letter D calculated to cause much merriment?
(3) Put my tail onto my head and turn a prominent island into a baby animal.
(4) Add a letter to an animal and leave a remedy.

SIMPLE SIMON.

2—COMPOUND SUBTRACTION.

The following question is quite possible of solution, and yet the usual method does not seem to apply: From 137 acres, 3 rods, 25 rods, 6 feet, 101 inches, subtract 137 acres, 3 rods, 25 rods, 30 yards, 8 feet, 136 inches.

3—TRIPLE ACROSTIC.

1, A boy's name; 2, denoting surprise; 3, barren; 4, a demerol; 5, clear; 6, a vowel, an article, and an exclamation; 7, an author. Primals and finals, the name of a popular American author. Centrals down and across spell the same.

4—HOURGLASS.

1, Hoarseness; 2, pertaining to vision; 3, a girl's name; 4, a vowel; 5, a party; 6, renown; 7, a bigot. Diagonals from right, "blooming;" from left, "called."

5—SQUARE WORD.

1, A folding door; 2, a vowel, and judge; 3, reclined; 4, a neighborhood; 5, to come in.

6—SQUARE.

1, An expounder; 2, a bird; 3, a timber over a door; 4, given by vow; 5, a number; 6, to become less severe.

7—PUZZLE.

- (1) 100,—50,—R,—1000,—. A river in United States.
(2) 1000,—10000,1,n,1,—. What Canada is.
(3) 50,—n,—R,—. A county of Ontario.
(4) 1000,—,—H,—10000,—. A county of England.
(5) 10000,—,n,—,R,—,—50,—. Canadian city.

8—ADDED LETTERS.

Add a letter to a body of water and get a sort of fur.
" " a fondling and get a small, delicate person.
" " received and get taste or relish.
" " help and get an incursion.
" " a kind of fish and get a useful household article.
" " a boy's nickname and get a companion.
" " a body and get a mark.

9—DOUBLE ACROSTIC.

1, The name given to free cities under the old German constitution; 2, witchcraft among negroes; 3, an English princess; 4, a measure of time; 5, a weight; 6, a Chinese coin; 7, a prince; 8, disbelief; 9, a two-wheeled rig; 10, an oil obtained from the bitter orange; 11, the chief seat of government in India. Initials spell a noted poet; finals, one of his poems.

10—SQUARE DIAMOND.

(Down and across spell the same.)
1, Drudgery; 2, at one time and a consonant; 3, a piece of ice; 4, a reading; 5, rebukes; 6, formerly (curtailed); 7, a vowel.

11—OBLIQUE.

Diagram.

- 1, A consonant.
2, Total.
3, A collection of ships.
4, To gain skill.
5, Cars.
6, Prettier.
7, A drink.
8, Red.
9, A pigpen.
10, A letter.

12—ANIMALS.

- 1, h-m-s.
2, d-r-u-e.
3, e-r-t.
4, a-e-le.
5, l-m-i-g.
6, -a-i.
7, w-a-e.
8, -l-o-l.
9, e-e-a-t.
10, m-r-n.

13—DOUBLE ACROSTIC.

1, A pronoun; 2, estate; 3, sound; 4, honorable; 5, Christmas. Primals and finals spell the name of a prizewinner of our Corner.

14—MUDDLED AUTHORS.

Aacekthry, Iecodrgle, Eeellrwrth, Oeniglw, Aallihnt, Roc cuha. PETER HYDE.

Answers to March 6th Puzzles.

1—Parable. First three changes—Elba, able, Abel; second = rap, par.

2—A r a r a t
r e v e r e
a v a t a r
r e t i r e
a r a r a t
t e r e t s

3—Candidate.
4—Frog.

5—g r e a s e o r k n e t
e a r i n g p r a e m e t a l
t e e t e r k a n o t a t
a g a t e s m o d e l
e m a n e s d o t e n e w
e t w e e s m o r a l e m o n

6—p m
9—m o h a m m e d a n
r e l i e v e s
r e t a i n
s e l l

7—A cricket.
8—May-flower.

10—We hold a vaster empire than has been.
11—Time and tide wait for no man. It is never too late to mend. Cut your coat according to the cloth. Let well enough alone. The more haste the less speed. Where there's a will there's a way. If you wish a thing done, go; if not, send. One good turn deserves another.
12—Dianthus, larkspur, mignonette, nasturtium, petunia, salpiglossis, callopsis, candytuft, chrysanthemum.
13—A needle.

SOLVERS TO MARCH 6TH PUZZLES.

"Ena."

ADDITIONAL SOLVERS TO FEBRUARY 20TH PUZZLES. Lizzie Conner, J. McLean, Jessie Hyde, Peter Hyde, Dickens, Addie E Todd.

COUSINLY CHAT.

L. C.—I hope you will get the prize, and I also hope that we may have some very good stories sent in. "Dickens"—Yours is not a fair question—you will soon know the result. Keep trying. Barclay.—The prizes are given for the most and best during the quarter. "Barney"—Your puzzle is not quite suitable. Try again.

Bachelor's Life in Manitoba.

Frying and baking till I'm nearly mad, Patching and darning is twice as bad; Working all day—cold just a fright, Bitten half to death with Jack Frost at night.

Washing days come about once in thirty—I should remark if the clothes weren't dirty; 'Twould take a twenty-horse power machine To make the shirt sleeves or the socks look half clean.

This is "toughing it" in the "Great Northwest." When at home we all thought it a hard doubly blest; I'll be blest, however, if the reality seems Just to come up to those flowery old dreams.

We soon wakened up when out on the prairie, Where for dinner we couldn't call Kate, Ada or Mary. We just had to tackle bannocks and bacon— If you think that's good grub you are greatly mistaken.

When tired of bannocks we fry flapjacks instead, And the first meal of them you'll remember till dead; For if prairie life didn't make good our digestion Such diet then would be out of the question.

However, of game there is always abundance, And good land to cultivate stretches around us; So we'll just make the best of our humble lot— For a strong, healthy chap this is just the spot.

So we'll brace up and hope that in years to come A woman may brighten and cook in our home; So now, my old schoolmates, to you I have shown; So, if you are thinking of leaving your home, Pack up your old duds, bid good-bye to your ma, And try your luck baching in Manitoba. West Hall, Man. —W. E. Robbins.

Leslie Keith, the Scotch litterateur, who was visiting Ireland in the fifties, saw the most squalid-looking beggar he had ever encountered, sitting with his back to the wall. Unlike his compatriots, this man was strangely silent, so Keith asked him if he were begging. "Of course it's begging I am," the man replied. "But you do not utter a word," said Keith. "Arrah, is it jokin' yer honner is wid me?" said the beggar. "Look here," and he lifted up the tattered remnant of what had once been a coat; "don't yez see how the skin is spakin' through the holes of me clothes and the bones cryin' out through me skin? Look at the sunken cheeks and the famine that's starin' in me eyes! Man alive, isn't it beggin' I am with a hundred tongues?"

FIFTH ANNUAL Canadian Horse Show

UNDER THE JOINT AUSPICES OF The Canadian Horse Breeders' Ass'n AND The Country and Hunt Club of Toronto TO BE HELD IN

THE ARMOURIES TORONTO, CANADA.

on Thursday, Friday and Saturday, April 13th, 14th and 15th, 1899. ENTRIES CLOSE on Wednesday, March 30th, 1899, and should be addressed to HENRY WADE, Parliament Buildings, on TORONTO, ONT.

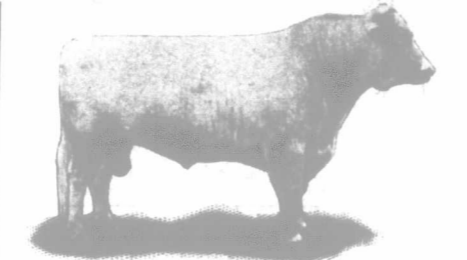
FOR SALE OR EXCHANGE

FOR FARM LANDS OR LIGHT HORSES The imported Shire stallion Grove Ringleader No. 11544 English Shire Horse Soc. Stud Book. Foaled 1889; weight, 1,800 lbs. This horse is of the finest quality and disposition. He is sire of King Master, winner of the sweepstakes at Winnipeg, Portage la Prairie, Brandon, and Regina, 1895. For particulars apply to GEORGE BOTTING, Brandon, Man.

SCOTCH COLLIE DOGS.

I have a number of fine sable pups for sale, by Merlin, out of Fanny G. They are full brothers of Belhelvie 19ma, winner of two firsts and special at Winnipeg in 1898. Price, \$10. Also Fox Terrier pups from my prizewinning stock, \$10 each. Certificate of registration with each. W. J. LUMSDEN, Hanlan, Man.

"PRAIRIE HOME STOCK FARM."

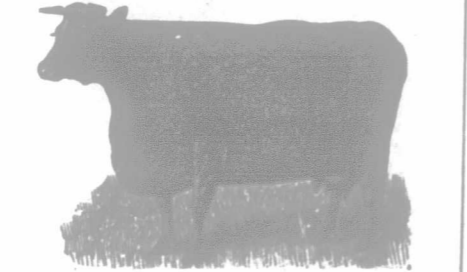


Bulls at head of herd: JUBOS = 23419 = and Imp. JUBILEE = 22858 = Shorthorn and Ayrshire cattle, Shropshire sheep, Yorkshire and Berkshire swine. A carload of Bulls suitable for Northwest Territories for sale. ORDERS BOOKED FOR SPRING PIGS.

Berkshires, by the great boar, King Clere, and out of such sows as Harmony and Gold Drop. Yorkshires, by the sweepstakes boar, Yorkshire Bill, and out of such sows as Stamina, Jubilee Queen, and Markham Maid.

THOS. GREENWAY, PROPRIETOR. JAS. YULE, MANAGER, CRYSTAL CITY.

J. E. SMITH



—HAS ON HAND FOR SALE— CLYDESDALE STALLIONS AND MARES. SHORTHORN CATTLE—BULLS and HEIFERS. All registered. Prices right. Come and see them. No reserves. J. E. SMITH, Box 274, Brandon.

SHORTHORNS, My stock bull, Royal Duke = 24640 =; six other bulls, varying in ages; five heifer calves. Will sell at reasonable figures, to make room for winter. Write R. McLENNAN, Moropano, Man.

J. A. S. MACMILLAN

—IMPORTER OF— Clydesdales, Shires, Hackneys.

STALLIONS: Has a few choice ones for sale. Also Pure-bred



SHROPSHIRE SHEEP, Rams and Ewes, from the most fashionable imported blood. Inspection invited. For full particulars, Apply: Box 483, Brandon, Manitoba.

Meadow Lawn STOCK FARM.

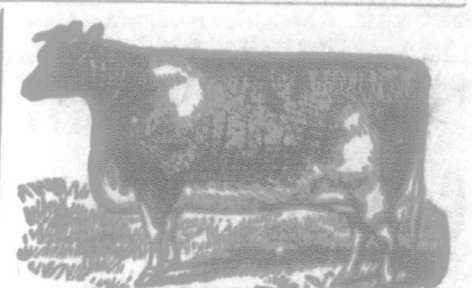
Clydesdale Horses, Shorthorn Cattle.

The most fashionably bred stud of Clydesdale Horses and herd of Shorthorn Cattle in America. Prices reasonable. Quality assured.

N. P. CLARK, ST. CLOUD, MINN.

12 YOUNG BULLS

of Missie, Mina, Rosebud, Strathallan, Wimple, and other choice Scotch breeding. Also, females at moderate prices. W. S. LISTER, MIDDLECHURCH, MAN. Marchmont Stock Farm, near Winnipeg, Man.



PIONEER HERD OF SHORTHORNS. WALTER LYNCH, Proprietor, WESTBOURNE, MAN.

Fifteen first and one second herd prizes in sixteen years. A choice lot of young bulls for sale. 14-2-y-m

FOREST HOME FARM.

SHORTHORNS, BERKSHIRES, YORKSHIRES, and B. P. ROCKS. Two young Bulls, good ones. Yorkshire Bows, ready for service. Spring pigs, both breeds, just arrived from Toronto. Three very large, well-marked Cockerels for use in our fine yard of Rocks. Eggs, \$1.50 per setting of 14.

A. GRAHAM, Carman, C. P. R. POMEROY, MAN. Roland, N. P. R.

SHORTHORNS

Also a few Improved Large Yorkshires for sale. Write to JAMES BRAY, Longburn, Man.

YOU CAN'T DO WITHOUT IT! IF YOU WANT FURNITURE—IT IS MAILED FREE—OUR BIG CATALOGUE, CONTAINING OVER THREE HUNDRED ILLUSTRATIONS. SCOTT FURNITURE CO., THE WIDE-AWAKE HOUSE, WINNIPEG, MANITOBA.

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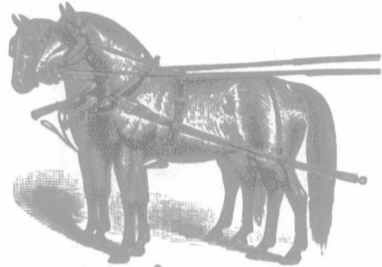
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SMUT IN OATS

SHOULD BE IN EVERY STORE IN THE PROVINCE. CORRESPONDENCE SOLICITED. WRITE US FOR PRICES. WE SUPPLY THE TRADE.

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BRANDON, - MAN.

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For all purposes. The best made and at right prices. Write or call on

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SPRING WORK.

We carry a full line of Plows, Discs, Harrows, Cultivators, Breakers, etc., for the spring work.

SEE OUR COMBINATION BREAKER AND CROSS PLOW.

There are others, but none other so good.

A STRAW CUTTER

Often helps out a small hay stack in the spring. We have all sizes.

SEE THESE GOODS WITH YOUR DEALER OR WRITE US.

John Watson Mfg. Co'y, Ltd.

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WINNIPEG, - MANITOBA.

BARGAINS IN FARM LANDS.

IMPROVED and unimproved, in choicest districts, at lowest prices. Close to best markets, many adjacent to Winnipeg. Some at less than cost of improvements. Buy now before the advance in prices takes place.

See me or write for List.

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GOSSIP.

In another column Mr. George Botting, of Brandon, offers for sale or exchange for farm lands or light horses, the imported Shire stallion "Grove Ringleader" No. 11544. He is sire of the sweepstakes winner at Winnipeg, Portage la Prairie, Brandon, and Regina exhibitions in 1895. Full particulars will be given regarding this stallion by corresponding with Mr. Botting.

Under date of March 23rd, Mr. R. McLennan, Lakeside Stock Farm, Moropano, Man., writes as follows:—"My stock are doing finely, notably Sir Colin Campbell (imp.), my recent purchase at Mr. Isaac's sale. I have made the following sales: Royal Duke, to Samuel Fletcher, Holmfield; Royal Master, to Arch. McArthur, Calgary; Royal James, to William Waldie, Cartwright. Have yet some good bulls for sale."

Hunter Smith, son of the well-known Shorthorn and Clydesdale breeder, John E. Smith, Beresford Stock Farm, Brandon, makes a specialty of poultry-raising, giving special attention to Barred Plymouth Rocks and Brown Leghorns. He has an excellent, carefully-selected breeding pen of each of these breeds. His poultry house is of brick, built with a view to promote the health and comfort of the birds, and certainly from their bright appearance at the time of our recent visit this has been satisfactorily accomplished.

SALES FROM HON. THOS. GREENWAY'S FARM.

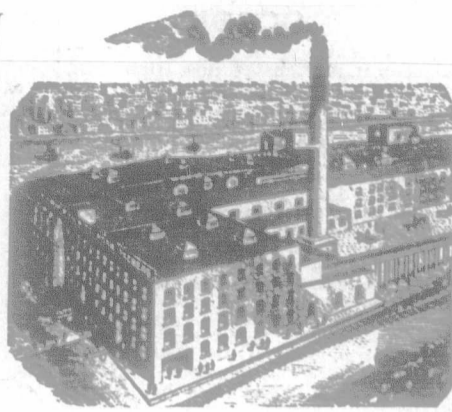
James Yule, manager of Prairie Home Stock Farm, owned by Hon. Thos. Greenway, Crystal City, Man., writes as follows:—"Mr. C. C. Castles, of Foxton, who had been looking over the Shorthorn herds in one of the best of the country with a view of laying the foundation of a herd of Shorthorns, paid a visit to Prairie Home Stock Farm recently. That he was well satisfied with what he saw may be inferred from the fact that he at once decided to make selections without going any further. He purchased the roan cow, Gladness - 2383 - She is an animal of fine quality and character, and is a favorite of the Premier's, being one of the first cows shown by him. She has been a regular breeder, raising a first-class calf every year. Her sire, Prince Albert, rivalled his famous sire, Brampton Hero, as a show and breeding bull. Her dam is of the Dutchess (Foster) family. Moss (lost) of Strathleven - 23489 - is another he picked out. She is smooth, straight, low-set, and has plenty of size. She has not been shown since a year old, when she stood third in her class at the World's Fair, Chicago. She has been a good and regular breeder. Village Flower - 16885 - another of his selections, is one of the best in the herd, and is the same family as the famous Young Abbotsburn, winner of the championship at World's Fair, Chicago, as best bull of all the beef breeds. Her sire, Prince Albert, was a son of the celebrated old bull, Brampton Hero, himself a champion, and whose descendants have won more championships than those of any other bull of the breed in the history of Shorthorns in Canada. Mr. Castles has certainly made a wise selection in securing such a first-class nucleus for the foundation of a herd of Shorthorns. Mr. Frank Foster, Langdon, N. D., also visited the farm and purchased the red yearling bull, Strathallen Chief - 26593 - sire Banker - 23244 - by Scottish Knight of St. John, bred by Mr. Wm. Duthie, Aberdeenshire, Scotland, winner of first prize in Toronto, 1895. Mr. Edward Petar, Souris, Man., who is laying the foundation of a herd of Shorthorns and Ayrshires, paid us a visit, and after a careful inspection of the herd purchased the red yearling heifer, Nerissa 22nd, Vol. 15, and her mate, Emma Haas, Vol. 15, and these heifers have been recently brought from Ontario. They were bred by James Gibb, Brookside, Ontario. Mr. Petar also purchased the following Ayrshires: Nellie of Rockton - 2650 - Stubby Twin - 2651 - Lassic Jean - 3173 - Jenny Lind - 9112 - and the beautiful heifer calf, Lady Minto, sire Surprise of Burside, dam Phyllis of Rockton. These cows have been heard of from time to time in the showings, and as they are going into good hands will no doubt be heard of again. One yearling Ayrshire bull has been sold to T. H. Donnelly, Pleasant Forks. There has been a great demand for pigs. A few of recent sales follow: To C. C. Castles, one Yorkshire sow, also Berkshire boar and sow; to A. Bernie and J. J. Fraser, Pilot Mound, each a Yorkshire sow; to W. J. Cavanaugh and Potter, Deloraine, Yorkshire boar; to A. R. Ross, Moose Jaw, Berkshire boar and sow, also two Yorkshire sows. There are 22 sows to farrow soon, all of which are first-class stock.

The weather has been very severe for young lambs, but so far we have twenty new arrivals from our best ewes. We are fitting a carload of young Shorthorn bulls for the N.-W. T.

JOHN E. SMITH'S CLYDESDALES & SHORTHORNS.

John E. Smith has this winter carried a very large stock of Shorthorns at his Home Farm, adjoining the City of Brandon. In his recently completed stock barn he has twenty-four young bulls, all ready for sale, and twenty-four one- and two-year-old heifers. Six of the bulls are two-year-old Herefords; there are also six two-year-old Shorthorns, and the rest are yearling Shorthorns. They are in strong, thrifty condition, not the least pampered. In the old stock barn are fifty-four cows and heifers, all Shorthorns, and quite a number of calves. The stock bull is a son of Topman, and has given Mr. Smith great satisfaction as a breeder.

In addition to the cattle stock, Mr. Smith, as is well-known, is an extensive breeder of Clydesdale horses, and a number of good ones were shown us on our recent visit. One of the best animals is a light bay mare, Belle Beresford, of Mr. Smith's own breeding, by Lorse Handy, out of Lady Kimmur. She is a massive mare, with plenty of substance and strong, bold action. There are also a number of promising colts. The stallions on hand at the time of our visit were the following: The well-known sweepstakes horse Arthur, who is still comparatively fresh and shows much of his old form; the imported horse, Press Gang (8113) - 2333 - a big, strong, dark brown horse, which has proved himself a remarkably good stock horse; Macbeth - 2215 - another horse of good size and substance; but undoubtedly the pride of Mr. Smith's heart is the young horse Mr. Bean - 2270 - rising three years old, by Arthur, out of Bessie of Overlaw. This youngster was bred by Mr. Smith, and is certainly one of the handsomest colts he has yet raised. He resembles very strongly his sire, and will certainly make a show horse.



LIVE HOGS WANTED
Weighing from 150 lbs. to 250 lbs.
Capacity, 500 Hogs per Day.
J. Y. GRIFFIN & CO., Pork Packers, WINNIPEG.



THE only ORIGINAL and GENUINE Fish Bros. wagon, made only at RACINE, WIS. Send for catalogue to us, or our agents for your territory.

Minnesota Moline Plow Company,
MINNEAPOLIS, MINN.



ITALIAN BEES

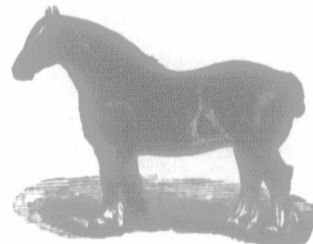
FOR SALE:

PRICE LIST FREE.

WM. JAS. ROBINSON,
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FOR SALE... IMPORTED AND CANADIAN-BRED Clydesdale Stallions

From One to Four Years Old. Also

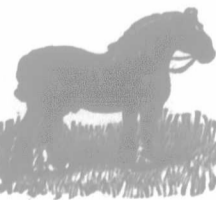


SEVERAL THREE YEAR OLD

All registered and warranted sound. Inspection invited.

ROBT. DAVIES,
-om Thorncliffe Stock Farm, TORONTO.

DO YOU WANT TO BUY A CLYDESDALE



Stallion, Brood Mare, or Filly?

If so, it will be to your interest to correspond with us. We have them of all ages and of the best breeding strains. In the pedigrees will be found the names of such sires as Grandeur, Macgregor, Macpherson, Darley, and Good Hope.

I. DEVITT & SONS, FREEMAN P.O.
Farm quarter mile from Burlington Station, G. T. R.; nine miles from Hamilton, C. P. R. -om

One Imp. Clydesdale Stallion For Sale!
3 YEARS OLD IN JUNE.

Large, Quality Good, and Breeding Tight. For particulars apply to

JNO. DAVIDSON, ASHBURN, ONT.
Station: Myrtle, C. P. R. or G. T. R.

FOR SALE: Nine Clydesdale Stallions

Just landed from Scotland; also a few imp. and home-bred Shorthorn females.

JOHN ISAAC,
-om KINELLAR LODGE, MARKHAM, ONT.

SPRING GROVE STOCK FARM



Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstakes at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Imported Blue Ribbon - 1766 - and the famous Money-tuffel Lad - 90321 - High-class Shorthorns of all ages for sale. Also prizewinning Lincolns.

Apply to
T. E. ROBSON, Ilderton, Ont.

Ten Shorthorn Bulls FOR SALE,

Seven red and three roan, from 10 to 16 months old. In a herd of 25 head, no white calves since 1892.

THE HERD HAS PRODUCED
such bulls as Topman, Banker, Lord Stanley, and Moneytuffel Lad, all of them

1ST PRIZE and SWEEPSTAKE WINNERS
at the principal shows of Canada and the United States. Also, three 1st prize herds out of five at Chicago, 1893.

A Yonge street trolley car leaves the Union Station, Toronto, to C. P. R. crossing, north Toronto; a car leaves here for Richmond Hill, four times a day; passes the farm.

J. & W. RUSSELL, RICHMOND HILL, ONT.

ROBERT MILLER, STOUFFVILLE, ONT.,

Importer and Breeder of

Shorthorns and Shropshires

Offers young bulls and heifers, rams and ewes of the most approved breeding and finest quality, at moderate prices.

Station, Telegraph, Telephone, Post Office, three minutes' walk.

SHORTHORNS FOR SALE

HERD ESTABLISHED 1855.

A number of Young Bulls, Cows and Heifers for sale. Herd headed by Importer Christopher - - - and Duncan Stanley - 16384 - Grand milking cows in herd.

JAMES DOUGLAS, -om CALEDONIA, ONT.

SCOTCH-TOPPED SHORTHORNS.

Am offering five young bulls, four of which are by Guardsman, the sire of St. Valentine, champion for three years in succession in the United States. The fifth is out of a Guardsman dam. Also a few cows and heifers, mostly by Guardsman.

JOHN GARDHOUSE, HIGHFIELD, ONT.
Weston Station, G. T. R. and C. P. R. -om

4 - SHORTHORN BULLS - 4

SCOTCH BREEDING.

Good growthy ones from 5 to 16 months. Also one coming 3 years. Would spare a few heifers. Prices very moderate. Write -om

SHORE BROS., White Oak, Ont.

Springhurst Shorthorns.

Half a dozen young bulls, and as many heifers and young cows, of best Scotch breeding and first-class quality, now for sale.

H. SMITH, HAY, ONT.
Exeter Station, G. T. R., half mile from farm. -om

SHORTHORN CATTLE AND LINCOLN SHEEP.

Imp. Baron Blanc 11th at head of herd. Seven young bulls for sale - good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

J. T. GIBSON,
-om DENFIELD, ONT.

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS.

FOR SALE: One young bull, a great-grandson of 2nd Fair Maid of Hullett - 9047 - the Chicago dairy test cow - a good one. Price right. -om

Wm. Grainger & Son, - Londonboro, Ont.

FOR SALE! Three Choice Young BULLS,

Red and roans. Imported Prime Minister heads my herd. -om

J. M. GARDHOUSE, HIGHFIELD, ONT.

SHORTHORNS

For Sale: THREE CHOICE YOUNG BULLS.

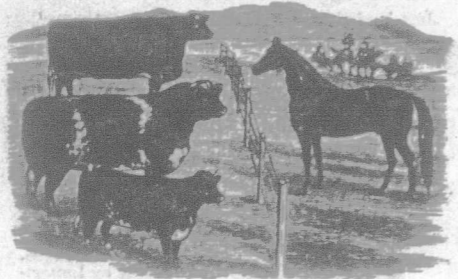
Also, heifers and young cows. -om

R. CORLEY, -om BELGRAVE, ONT.

PURE SEED POTATOES.

PEARL OF SAVOY. This variety has stood highest in late experiments at O.A.C. Our sample is good. Price, \$1.15 per bag of 90 lbs., F.O.B. cars Guelph - C. P. R. or G. T. R. Bags free. Cash to accompany order. **JAS. L. SIMPSON, West End Road, GUELPH.** -om

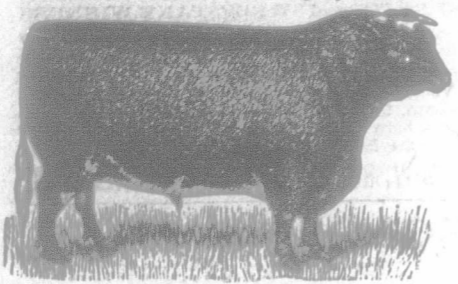
W. D. FLATT,
HAMILTON P. O. and TELEGRAPH OFFICE,



OFFERS FOR SALE
TEN CHOICE SHORTHORN BULLS
from seven to twelve months,
FIFTEEN COWS AND HEIFERS,

served by imported bull, Golden Fame
=20055=; also, a few cows with calves
at foot. Farm 6 miles from Hamilton.
Catalogue sent on application. Visitors
met at G. T. R. or C. P. R. if notified.

ARTHUR JOHNSTON
Greenwood P. O. and Telegraph Office,



OFFERS FOR SALE
4 young imported **Shorthorn Bulls** big, good
and 8 home-bred **Cows and Heifers,** in
fine form. Also, 8 Imported **Heifers,**
together with **25** home-
bred **Cows and Heifers.**
All of which will be sold at moderate prices.
Claremont Station, C. P. R.
-om- Pickering Station, G. T. R.

SHORTHORNS
OF THE
Crimson Flower and Minnie Strains



And from such sires as Scotchman 2nd, Duke of Lavender, Premier Earl, Indian Chief, and Clan Campbell. A few splendid young bulls ready now. Cote-wold sheep.
DAVID BIRRELL,
-om- Greenwood, Ont.

Scotch Shorthorns For Sale:
90 HEAD TO SELECT FROM.
We are offering four young bulls by Valkyrie, and a number of cows and heifers (including some show heifers), from such sires as Valkyrie =21806=, Young Abbottsburn's Heir =15947=, and imp. Mariner =2720=, served by imp. Diamond Jubilee (Vol. 15) now at the head of herd. Farm 1 mile north of town.
T. DOUGLAS & SONS,
-om- Strathroy Station and P. O.

W. G. PETTIT & SON,
FREEMAN P. O., Burlington Junction
ONT. Telegraph Office.

10 SHORTHORN BULLS 10
By Indian Statesman =23004=, from 10 to 20 months. Twelve young cows or heifers with calves by side or in calf. Twelve ram and 20 Shropshire ewe lambs, sired by (imp.) Flashlight. Also, Berkshire boars and sows, all of which will be sold at moderate prices. Farm half mile from Burlington Junction, G. T. R.

SCOTCH SHORTHORN BULLS AND HEIFERS
HERD ESTABLISHED IN 1872.
Such sires as imported Royal George and imported Warfare have put us where we are.
A. & D. BROWN,
ELGIN COUNTY, HON. ONTARIO.

SHORTHORNS
9 BULLS, 4 HEIFERS.
Mostly Scotch bred, as follows: 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th.
-om- G. A. BRODIE
Stouffville Stn., G. T. R. BELLEVILLE, ONT.

GOSSIP.

A representative of the ADVOCATE recently called on R. McKenzie & Son, High Bluff, Man., and was pleased to find this celebrated herd of Berkshires coming along in good shape. The stock boars, Proud Victor, of Snell's breeding, by Baron Lee 4th, dam by Enterprise, is a two-year-old of outstanding excellence, with splendid feet and legs, good action, with great length and depth of body, and a good, strong, masculine head. Last year he stood second to their own sweepstakes boar, Perfection, at the Winnipeg Industrial. Perfection, who will be remembered by everyone who saw him at the Industrial last year as coming so close to the high standard indicated by his name, requires nothing to be said of him. He is in first-rate shape to-day and is worthy of the record already won, which includes nine firsts at the leading fairs of Ontario, and 1st at Winnipeg and Brandon last year. Another boar that is in service in the herd is Prince, a strong, lengthy, well-developed hog, out of a Highclere sow by Manor Hero. Among the sows noted were Maiden Lass, the diploma sow at Winnipeg Industrial in '96, by Champion Duke, of N. H. Gentry's breeding. She is a great sow, with tremendous length and depth, and at four years old still carries herself well. Maiden, by Lord Ross, out of Painted Maid, bred by Snells, had a magnificent litter of six by the stock boar, Prince. Another sow, Highclere Bessie, by a Highclere boar of Coxworth breeding, has a litter of five by Perfection. These two litters are doing better than any winter pigs we have previously seen in this country. They are making wonderful growth, and are smooth and even; in fact, could not do better if summer pigs. There are also a number of aged breeding sows, all in good condition. One of the handsomest things on the place is the young sow, Silver Maid 2nd, by Proud Victor, out of Silver Maid, who was second in the aged class at last year's Industrial. She is deep, straight, with fairly good length, with extra hams and quarters, standing well on her legs, and with almost a perfect head, and is nicely marked. A young seven-months-old boar is also worthy of special mention. He is by Milton Lad, out of Miss Prim. A full sister to this boar, also in the herd, will be heard from at the Industrial if all goes well.

J. G. BARRON'S SHORTHORNS.
A visit was recently made to the stock farm of J. G. Barron of Carberry, four miles north of the town. The cattle suffered some hardship during the first part of the winter, owing to the new stable not having been completed, but by the 1st of March, when we saw them, they were all in first-rate condition, the new barn having proved very comfortable, well lighted and ventilated, and the cattle had gone right along gaining in flesh. The feed is principally oat straw with the addition of a little meal. The feed during the spring months is green-cut sheaf oats run through the cutting box. At the head of the herd is Topspan =17847=, bred by J. & W. Russell, Richmond Hill, Ont. (got by Stanley 7949)—twice champion at the Industrial, and sire of Moneyfuff Lad, who has figured so conspicuously as the champion bull in many hard-fought battles at the leading fairs in Ontario, and recently sold to Green Bros., of Indiana. Topspan has done much to bring his herd prominently before the public, and has also done much in giving the stock a well-defined uniformity, and a type much resembling his own, wide, deep and thick, well mated over the back and hind quarters. A bunch of half a dozen two-year-old heifers would attract special attention in any company. Some of these will likely appear at the coming Industrial Exhibition. Red Bess is certainly one of the choicest things in the herd. She is out of Red Baroness, purchased some years ago from the Williamson herd, of Wawanessa. Another good one is Louisa, whose granddam was by imported Heir Apparent. Among the breeding stock, one could not but notice such cows as May Queen 2nd, a great, massive, thick-fleshed red, by Barrington Waterloo, dam by Waterloo Warrier, imp. Lady Hopewell, a strong, thick-fleshed roan, by imp. Prince Royal, dam by The Baronet, imp. This cow is one of Hunter's breeding, as is also Jessie, by The Baronet, imp., out of Lady Sarah 3rd, a red with white marks, and one of the largest and sappiest cows of the herd. Red Princess and Nonpareil's Beauty 2nd, both reds, of Russell's breeding, got by Scarlet Velvet =21446=, and the former out of imp. Roan Duchess. Two good things, of John Isaac's breeding, are Selma 2nd and Roan Betty 2nd, both by Golden Crown and both out of imp. cows. Selma has a bull calf at foot, got by an imported bull. A Mina cow, Gypsy Queen 2nd, is one of the finest sort, by Prince 3666, out of Gypsy Queen. On the Topspan heifers a Russell-bred bull has been used to good advantage. He is Lord Stanley 6th =24533=, by the famous Lord Stanley, who was champion at the World's Fair, and who headed the Russell herd, and a number of young heifers from this sire are very promising. At this time, however, most attention will naturally be given to the purchases made by Mr. Barron at the John Isaac sale last January. The bull, imp. Noblemann =28890=, for which \$410 was paid, is a nice, low-set, level, evenly-fleshed bull of decided promise. The red three-year-old Rosie 5th, bred by S. Campbell, of Kinellar, sired by Emancipator, is a nice, breezy heifer, showing much quality. She has a very pretty red heifer calf at foot, by Clan Alpine, bred by A. Cruikshank; \$490 was paid for this heifer at Mr. Isaac's auction. The roan Jenny Lind 4th, just past three years old, bred by Sir A. Grant, Aberdeenshire, Scotland, is to our mind the best female in the herd. She was also purchased at Isaac's sale on a bid of \$400. She has good length, depth, and thickness, is well proportioned and evenly-fleshed, and will certainly make her mark.

Mr. Barron's herd consists of about 55 head of thoroughbred Shorthorns, all breeding stock. There were only a few young bulls left at the time of our visit—one Topspan bull having just been sold to W. D. Hunt, of Wapella. Mr. Barron also keeps a few choice Berkshires, having recently purchased from Mr. Green a very handsome young sow, recently imported from Geo. Green's well-known herd. In order to work the large amount of land Mr. Barron has every year in wheat, requires a great number of horses. He, to a large extent, has himself in horses of his own breeding, and has a number of fine specimens of Lydesdale and other heavy horses which will furnish ample evidence that the Lydesdale heavy horses can be raised in Mani-

THE FARMER'S WIFE.

The cares of family, of the household, of the marketing cause sickness, weariness and nervousness among the women of the farm. A constant tired feeling, headaches, constipation, female troubles, etc. are common symptoms. **DR. WARD'S BLOOD AND NERVE PILLS** are the proper remedy. This is how they work.

"I have been a sufferer for a number of years with stomach trouble, nervousness and similar complaints. Nothing seemed to be of any use to me. Reading some of the testimonials from people who had been cured through using Dr. Ward's Blood and Nerve Pills, I bought two boxes and began to improve almost immediately. After using them for a short time my appetite was restored, and my gain in health and flesh is most surprising." **MRS. MARY ANN CLEMENS** Queen St., Berlin, Ont.

Dr. Ward's Blood and Nerve Pills 50c. per box, 5 for \$2.00 at druggists or mailed by **THE DOCTOR WARD CO., Limited,** Dept. F., 71 Victoria St., Toronto, Ont.

FITZGERALD BROS., Mt. St. Louis, P. O.

Offer for sale six Short-horn Bulls from 9 to 14 months old; also 2-year-old roan bull, St. Louis =24185=, a Morton-bred bull with exceptionally grand pedigree. Also a few females of all ages, bred to imp. bull, British Statesman (63729) =20833=, now at head of our herd. Hillsdale Telegraph Office; Elmvale Station, G. T. R.

Maple Lodge Stock Farm SHORTHORNS.—Imported Kanakie Duster, and the great sire and show bull, Abbottsford, in service. Several choice heifers for sale, and a grand lot of young bulls by Catthness, from good milking dams. Some splendid Leicester ewes and rams for sale also.
A. W. SMITH,
-om- MAPLE LODGE P. O., ONT.

INGLESIDE HEREFORDS.

UP-TO-DATE HERD OF CANADA!
TAMWORTHS
Orders booked for Spring Pigs.
Pairs not skin.
Send for Illustrated Catalogue. Address,
H. D. SMITH, COMPTON, QUE.

GUERNSEYS

Two Choice Bull Calves AND Five Heifers for Sale.
—ALSO—
Tamworth and Berkshire Pigs.
W. H. & C. H. McNISH,
LYN, ONT.

TROUT RUN STOCK FARM.

Ayrshire herd now headed by Royal Star of St. Anne's 7916, 1st prize two-year-old at Toronto, 1st and diploma at London, 1898. Will now sell grand stock bull, bred by D. Morton, Hamilton, direct from imported stock; 1 yearling bull, 1 bull calf, cows and heifer calves. One hundred cockerels and pullets, White and B. Minorcas, White, Black, Buff and Partridge Cochins, Light Brahmas, Silver-Gray Dorkings.
WM. THORN,
-om- LYNEDOOCH, ONT.

AYRSHIRE BERKSHIRE BULL FOR SALE. PIGS
Bull 10 mos. old; sire Neidpath Chief =2142=; dam Conney =2823=, by Castle Douglas (imp.) =1126=.
Pigs, pure-bred, 6 mos. old, either sex.
-om- **GEORGE HILL, DELAWARE, ONT.**

Six-Young Ayrshire Bulls - Six FOR SALE!
From eight to ten months old; all imported in dam, and all from good herds. Will sell them right. Address
ROBT. HUNTER,
Manager to W. W. Ogilvie. **LACHINE RAPIDS, QUE.**

MAPLE CLIFF Dairy and Stock Farm.
Three young bulls fit for service, and bull calves.
BERKSHIRES, TAMWORTHS,
Booking orders for spring litters.
R. REID & CO., HINTONBURG, ONT.
Five minutes' walk from Cen. Expl. Farm, Ottawa.

MEADOWSIDE FARM, J. YULL & SONS, Props., Carleton Place.
Breeders of high-class, deep-milking Ayrshires. Sweepstakes young herd at Ottawa. Shropshire sheep from prize-winning stock. Berkshire pigs and Barred Plymouth Rocks. Young stock for sale. Visitors met at Queen's Hotel. Give us a call.

HIGH-MILKING AYRSHIRES.
Descended from some of the most noted prizewinners at the World's Fair, Chicago, and other important competitions. None but the best are bred for sale. Young stock of both sexes for sale. Leicesters.
DONALD CUMMING, LANCASTER.

CHOICE AYRSHIRE BULLS

FROM IMPORTED STOCK.
Two bulls 12 and 13 months old, from imported cows and by imported bull, also three (3) bull calves from 2 to 6 months. -om-
W. W. BALLANTYNE,
Late Thos. Ballantyne & Son. Stratford, Ont.
"NEIDPATH FARM" adjoins city, main line G.T.R.

Jersey Cattle

THAT WILL PUT
MONEY IN YOUR POCKET.
Mrs E. M. Jones,
Box 324. -om- BROCKVILLE, ONT., CAN.

S. WICKS & SONS

MOUNT DENNIS, ONT.,
OFFER YOUNG Jersey Stock OF BOTH SEXES.
In POULTRY we have B. P. Rocks, Blk. Minorcas, G. and Silver Dorkings, Andalusians, Blk. and Buff Orpingtons, Bronze Turkeys, Rouen and Indian Runner Ducks, as well as Games of all kinds. **COLLIE DOGS** sired by Benedict K. C. S. B. 4649, lately imported and winner at Madison Square. -om-

Willow Grove Herd of Jerseys

Offering: Eight females, to calve shortly; three bulls, out of tested cows; four heifer calves. Prices right. Come and see them.
J. H. SMITH & SON,
-om- HIGHFIELD, ONT.

FOR SALE

Some choice **Jersey Bulls** and a few young cows at very low prices, quality considered. Also eggs from B. P. Rocks and Blk. Minorcas in season. Write for prices. Trio of Bronze Turkeys.
W. W. EVERITT,
-om- CHATHAM, ONT.

BRAMPTON JERSEY HERD.
Offering high-class A. J. C. C. cows and heifers in calf, and heifer calves; 9 choice young bulls. High-grade cows in calf; and Berkshires.
B. H. Bull & Son,
-om- BRAMPTON.

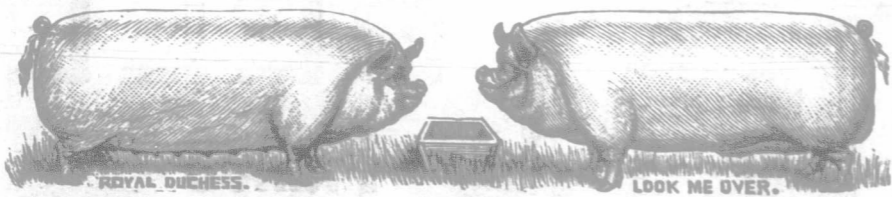
GLEN ROUGE JERSEYS.

WILLIAM ROLPH, Markham, Ont., offers twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right. 22-y-om-

HAVEN'T YOU SEEN Our Advertisement?
There is no quarantine law, and now is the opportunity for you to get the best Holsteins there are in the U. S. Our herd is near the Canadian line. Expense of transportation is small. We have 100 head, 90 per cent. of them are strong in the blood of De Kol 2nd and Netherland Hengerveld, the two greatest butter cows ever officially tested. We have a few bulls, sired by De Kol Artis, twelve months old, and ready for service; also females of all ages. Prices reasonable, terms easy. Address -om-
Henry Stevens & Sons, LACONA, N. Y.

MARK YOU
your live stock of whatever kind with the thoroughly reliable, rust proof, non-corroding, easily read...
ALUMINUM "STAY THERE" EAR MARKERS
Can't pull out, rust out or tear out. Name, address and consecutive numbers on each tag. Free sample, catalogue. **WILCOX & HARVEY MFG. CO., 201 Lake St. CHICAGO, ILL.**

BIG MONEY FOR AGENTS THE RIVETER
For MENDING HARNESS, BELTING, etc. Indispensable to Farmers, Liverymen and Threshermen. **STAR RIVETER** complete, with 80 tubular rivets \$1.00. Best selling article ever introduced. Agents write for special prices and territory.
ENTERPRISE MAN'G CO., TORONTO, ONT.



SUMMER HILL HERD OF YORKSHIRE HOGS.
LARGE, LENGTHY, ENGLISH TYPE.

Among them being the undefeated prizewinning boar, "LOOK ME OVER" 2602. Also Royal Duchess, a first prize sow at the Royal Show of England in 1898, and several choice young sows bred to Look Me Over; also, young stock of both sexes, single or in pairs, not akin. We ship to order, prepay express charges. Guarantee stock as described.

D. C. FLATT, MILLGROVE P. O., ONTARIO.

WE ARE OFFERING FOR SALE

8 HIGH-CLASS YOUNG IMPORTED SHORTHORN BULLS

OF THE BEST SCOTCH BREEDING,

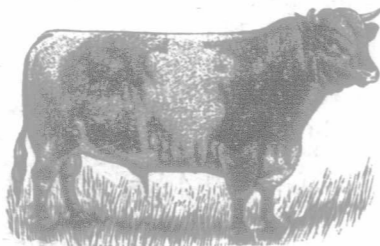
TOGETHER WITH A FEW

Home-bred Bulls

AND A NUMBER OF

Cows and Heifers

BOTH IMPORTED AND HOME-BRED.



Correspondence or a personal visit solicited. Catalogues on application.

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Cargill Station and Post Office on G. T. R., within half mile of barns.



This cut represents our 240-eggs capacity improved

SAFETY INCUBATOR

Like all our machines, it is absolutely self-regulating and supplies its own moisture. It is manufactured in Canada—hence there are no customs duties to pay on it. It is guaranteed in every particular and your money will be refunded if you are not satisfied at the end of the first hatch. No matter what INCUBATOR you place beside it, there is none that can out-hatch it. Thoroughly well built and perfectly automatic. It will hatch chickens, ducks, turkeys, and geese. Just

send in your address and get one of our free circulars. There is money in it for you. Address—

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"GEM HOLSTEIN HERD."
STOCK FOR SALE

We only keep and breed registered Holstein-Friesians. We have now some choice young bulls and heifers, also some older animals, all of the very best dairy quality, that we will sell, one or more at a time, on reasonable terms. Correspondence solicited.

ELLIS BROS., Bedford Park P. O., Ont.
7-y-om Shipping Station, Toronto.

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HOLSTEIN-FRIESIANS

BULL CALVES from Queen DeKof 2nd, winner of Prince of Wales prize over heifers of all breeds in public test; Lady Akkrum 2nd, 67 1/2 lbs. milk in one day and 24 lbs. butter in a week; Kaetje DeBoer, 63 lbs. milk and 3 lbs. butter per day at 14 years old; Marcena, 57 lbs. milk per day at 14 years old; Daisy Teake, dam of Daisy Teake's Queen, the great test winner, finest cow I ever saw.

G. W. CLEMONS, ST. GEORGE, 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: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cables—Sheepcote, London.



SCABBY SHEEP.
\$50,000 REWARD

To any party who can produce a scabby sheep which the Lincoln Dip will not cure. Write for particulars. Lincoln Sheep Dip Co., 855 Elliott St. Bldg., Buffalo, N. Y. Canadian Office: WEST CHEMICAL COMPANY, 15 Queen Street East, Toronto.

4 HOLSTEIN-FRIESIAN BULLS
from 9 to 12 months old, of choice breeding.

Apply to— William Suhring, Sebringville, Ont.

HIGHEST TYPE OF BACON HOGS.

Oak Lodge Herd of Large Yorkshires

The largest herd of pure-bred Yorkshires in America. This herd has won the best prizes offered for the breed during the last ten years.

STOCK BOARS.—Three imported boars, all winners at the Royal Show, including championship and gold medal. Also, two Canadian-bred boars, both first prize winners at Toronto, 1898.

BREEDING SOWS.—Royal Duchess, Royal Queen and Royal Queen 2nd, all winners of highest awards at Royal Show, and 15 of the best sows to be purchased in England. Also, 50 matured Canadian-bred sows of the choicest quality.

PRIZEWINNING STOCK A SPECIALTY.

J. E. BRETHOUR, BURFORD, ONT.

Thorncroft Herd of Improved Yorkshires

Choice pigs, February and March litters. One extra good boar eleven months old. All bred from Featherston and Brethour stock. Prices very reasonable. Eggs from ten varieties pure-bred poultry, \$2 per setting; 3 settings, \$5.

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PINE GROVE FARM HERD OF LARGE YORKSHIRES.

Imported and Canadian-bred, from the Hasket family, which has taken more prizes at the leading fairs in Canada and the World's Fair at Chicago than any other family of Yorkshires in America. Young boars and sows fit for breeding for sale. Correspondence solicited, which will receive prompt attention.

JOSEPH FEATHERSTON, Streetsville, Ont.

FOR SALE...

A CHOICE LOT OF LARGE Yorkshire SOWS

in pig to a show boar; also boars fit for service, and fall pigs of good length and quality. Berkshire sows in pig, and boars fit for service, at very reasonable prices. Two good Short-horn bulls, red-roses. Write

H. J. DAVIS, Woodstock, Ont.

Executive Meeting of the Pure-bred Cattle Breeders' Association.

A full meeting of the Executive of the Pure-bred Cattle Breeders' Association was held in Winnipeg on the 10th of March. There were present: President, James Bray, J. G. Barron, Brown, W. S. Lister, James Bray, J. G. Barron, and the Secretary. It was resolved to ask the Government to again undertake the printing of the annual report of the Stock Breeders' Association, and the suggestion was made that it might be advisable, if the Government thought fit, to embody the reports of the several Associations, such as the Stock Breeders', Dairymen's, Farmers' Institutes, and Horticultural Society, into one volume, allowing the secretaries of each Association the usual number required for distribution.

Some changes were made in the representatives to local agricultural societies, and representatives were appointed to several additional local societies.

It was decided that the Association's diplomas be offered to agricultural societies upon the same conditions as last year, and that the name and registered number of the animal winning the diploma must in every case be furnished by the secretary of the agricultural society before the diploma will be sent out. The following were named as expert judges of cattle:

Beef Breeds.—W. Lynch, Westbourne; A. Graham, Pomeroy; James Yule, Crystal City; W. S. Lister, Middlechurch; John Renton, Deloraine; R. J. Phin, Moosomin, Assa; W. V. Fraser, Emerson; James Mitchell, Castleberry; James Bray, Longburn; J. G. Barron, Carberry; R. L. Laing, Oak Lake; J. E. Peaker, Yorkton, Assa; Purves Thompson, Pilot Mound; W. Sharman, Souris; J. Brown, St. Jean.

Dairy Breeds.—George Steele, Glenboro; James Bray, Longburn; James Glennie, Orange Ridge; A. B. Potter, Montgomery, Assa; W. A. Scott, Emerson; D. Munroe, Winnipeg.

The following were recommended as judges of cattle at the Winnipeg Industrial Exhibition for 1899, in the order named:

Beef Breeds.—William Watt, Salem, Ont.; A. W. Smith, Maple Lodge, Ont.; Capt. T. E. Robson, Iderton, Ont.

Dairy Breeds.—William Stewart, Menie, Ont.; Prof. G. E. Day, Ontario Agricultural College, Guelph, Ont.; W. W. Ballantyne, Stratford, Ont.

It was decided to ask the Government for a slight increase in the annual grant in order to meet current expenses, and assist in the inter-provincial trade in pure-bred stock with the Northwest Territories.

It was also decided to request the Dominion Shorthorn Breeders' Association to publish a report of the Shorthorn prizewinners at the Winnipeg Industrial Exhibition in the annual volume of the Shorthorn Herd Book.

As an offset to the extravagant statements that have appeared in the press of the Province recently in regard to the state of health of the cattle of this country, following resolution was passed unanimously:

"That the Executive Committee of the Pure-bred Cattle Breeders' Association hereby protest against the false and misleading reports circulated regarding the health of the cattle of Manitoba. It appears from the reports, at public meetings, of the health inspectors and dairy inspectors of the City of Winnipeg, that the dairy farms of the city are kept in a disgusting filthy and disgraceful condition, and that the inspection of these dairies has been even more disgraceful than the barns themselves. It appears cattle from these pesthouses have been tested for disease and quoted as a fair specimen of the health of the cattle of the Province. This we deny, and we hereby affirm our belief that the cattle of this country, when kept under half decent sanitary conditions, are as healthy as any in the world. This Committee, therefore, ask the Government to make it incumbent on all public inspectors to make a detailed report of such inspection to the Minister of Agriculture, showing the sanitary conditions of all barns inspected, and to show the temperature at which the barn has been kept during the four coldest months of each year, the quality and quantity of food and water furnished, and more especially the quantity of fresh air per head per hour passing through the barn, and to make it a criminal offence for the inspector or a newspaper to publish any such report without the sanitary conditions being certified by the Minister of Agriculture."

In the advertising columns of this issue Messrs Fleming & Sons, of Brandon, advertise that they are prepared to supply the trade with formalin. The preparation is referred to in our issue of March 6th as a preventive of smut in oats. See the advertisement.

O. W. Bailey, High Bluff, is, perhaps, one of the most extensive sheep breeders in the Province. This winter he has about 350 ewes in his sheds. They are mostly grades. This last year or so he has been using Shropshire rams, and it is beginning to tell in the uniformity of the young stock. He has also got a few good Shropshire ewes. So far he has had no trouble from wolves. During the summer the sheep are herded on pasture lands north of the settlement; in winter they are all cared for at home; fed principally on chaff, with a good allowance of turnips every day.

Mr. C. C. Castle, who carries on an extensive grain farm and cattle ranch near Foxton, which lies a short distance north of Stonewall, within easy reach of Winnipeg by rail, has recently joined the numerous brotherhood of Shorthorn breeders. As a foundation for the herd, he has purchased from the Prairie Home Stock Farm of Premier Greenway the following three breeding cows: Village Flower, a large, massive, red daughter of the celebrated imported cow, Village Blossom, by Prince Albert; Prince Albert's Barnton Hero. This cow has been a regular breeder and is soon due to calve. Moss Rose of Strathleven, by Imp. Northern Light, another big, sappy, useful cow; and also the cow Gladness, a red roan by Prince Albert, out of a Canadian Duchess of Gloucester dam. Gladness is a cow that has produced a number of exceptionally good stock, and as these cows are now all in calf the selection is an excellent one. To head his herd, Mr. Castle has bought from the herd of Walter Lynch, of Westbourne, the three-year-old bull, What For No. 24000, by Walter Lynch's stock bull Village Hero, out of Pussy, of his own breeding, by Silverskin.

ESTABLISHED 1889
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PROPRIETORS.

Students have a LARGER EARNING POWER who acquire the following lines of preparation under our efficient SYSTEM OF TRAINING. IT HAS NO SUPERIOR.

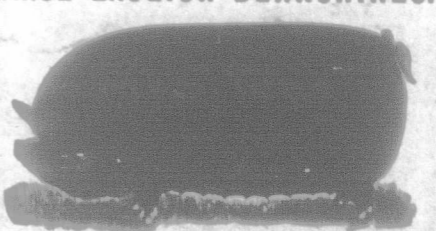
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LARGE ENGLISH BERKSHIRES.



Herd headed by four first prize stock boars of large size, strong bone and fine quality. Young Boars and Sows, all ages, for sale. Orders booked for spring pigs. GEORGE GREEN, - FAIRVIEW P. O., ONT. Telegraph and Station: Stratford, G. T. R.

LARGE ENGLISH BERKSHIRES
Maplehurst Herd.

IF YOU WANT MONEY-MAKERS ORDER A PAIR FROM US.

We have the kind that both the farmer and the packer want. Stock of Best Breeding, all registered. Pairs not akin. Write us— J. J. Ferguson, Box 373 Smith's Falls, Ont.

Special Sale for 30 Days on Following:

One Chester White boar, 12 months (imp.); one Chester White sow, 12 months (imp.), safe in pig; one Berk. boar, 2 years old, a herd header. Berk. pigs all ages. Write and secure a bargain.

om- H. BENNETT & SON, St. Williams, Ont.

DUROC - JERSEY SWINE

The earliest established, the greatest prizewinning and most reliable herd in Canada. If you want Duroc-Jerseys, we have them pure. We keep no others. They are quiet, non-squallers, prolific, long, deep and heavy. Just the pig for profit. Write us.

om- TAPE BKOS., Ridgetown, Ont.

5 POLAND-CHINA BOARS

Five months old, sired by imported Corwin Ranger—1065—; d. Kent Beauty—1304—, by imported Black Joe—708—. Sows all ages. Booking orders for fall pigs.

JOS. M. SMYTH, Box 619, Chatham, Ont.

OXFORD HERD OF POLAND-CHINAS

The home winners of the imported boars, Conrad's Model and Klondike, assisted by Bacon Boy and Lennox. Has won 64 out of a possible 69 first prizes. Stock of all ages for sale. Write for prices or come and see.

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CHRIS. FAHNER, Crediton, Ont.

I have to hand a choice lot of young

TAMWORTH SOWS

Some carrying their first litter and others carrying their second litter. These sows will be sold at our prices, by writing at once. Also, write for my new Catalogues.

TAMWORTH'S.

Have twelve sows of the choicest breeding and quality due to farrow to my two boars, Browns-ville Duke and Revell's Choice, bred direct from imported stock; also some choice fall pigs. JOHN FULTON, Jr., Brownsville, Ont.

CHOICE TAMWORTH & YORKSHIRE SWINE

Of both sexes. Also five pair Tonhouse geese; six pair of good Rouen and Pekin ducks; one pair Golden B. Poland (McNeill's).

John Hord & Son, Parkhill, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

**BUTTER,
★ HONEY,
JAM!**

Farmers and Dairymen!

The best packages for putting up butter, honey, jam, etc., whether for shipment or for storage, are made from our

Antiseptic Ware

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IN POULTRY SUPPLIES

WE LEAD, OTHERS FOLLOW.

Sole Canadian Agents for the Cyphers Incubator, endorsed by all as the only up-to-date incubator on the market. Endorsed and used by L. G. Jarvis, Agricultural College, Guelph; A. G. Gilbert, Agricultural College, Ottawa, and all leading poultrymen. Bone Mills, Mica Grit, and anything needed in the poultry line. Two 200-egg size Willett's silver medal incubators for sale, taken in part exchange for Cyphers Incubator. Price, \$15 each; \$25 the two. Also, a 240 Meyer's Incubator—price, \$20.

C. J. DANIELS,

221 RIVER ST., TORONTO.

SHOEMAKER'S POULTRY BOOK on incubators, brooders, poultry houses, etc. Tells how to raise chickens successfully, their care, diseases and remedies. Diagrams with full descriptions to build poultry houses. All about INCUBATORS, BROODERS and Poultry, with Lowest Prices. Price only 15c. C. C. Shoemaker, Freeport, Ill., U. S. A.

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Temperance St., Toronto, Canada. Affiliated with the University of Toronto. Patrons: Governor-General of Canada, and Lieut.-Governor of Ontario. Fee, \$65.00 per session. Apply to ANDREW SMITH, F.R.C.V.S., Principal. 18-2-y-om

EGGS FOR HATCHING

From Barred Plymouth Rocks (imported direct from L. K. Felch, Natick, Mass., U. S.); Silver and Golden Wyandottes, and Pekin Ducks. My Wyandottes are all bred from my noted prizewinners. Only \$1 per setting of 13 hen or 11 duck eggs. Several extra good Silver Wyandotte cockerels for sale at \$1.25 each.

J. E. MEYER, - KOSSUTH, ONT.

Barred Plymouth Eggs for Hatching.

Two pens of this large, early laying birds, fine laying strain. 15 Eggs, \$1.75; 30 Eggs, \$3.75; 45 Eggs, \$5.25.

Thos. Baird & Sons, Chesterville, Ont.

EGGS FOR HATCHING

Dorkings, Hamburgs, Houdans, Peas, Blue, Buff, Ducks, Geese, and Turkeys.

WM. STEWART & SON, MENTH, ONT.

GOSSIP.

Capt. Thomas Robson, of Iderton, Ontario, has recently sold to George Harding & Son, of Waukesha, Wis., the following Shorthorns: Two-year-old heifer, Myrtle 6th, by imported Royal Member, with heifer calf at side, one of the first-prize herd at Toronto in 1898; Daisy of Strathallan 19th, thirteen months old, by imp. Blue Ribbon; Lily of Strathallan, four years old, by Greenhouse Chief, a sweepstakes bull at Toronto Exhibition. Also 140 Lincoln sheep to the same buyer.

William Murray, Dugald, Man., made a very satisfactory sale the other day through a small advertisement he has been running in the FARMER'S ADVOCATE, consisting of a two-year-old Jersey bull and two females to W. J. Whitley, of Emerson. The bull is by Mr. Murray's stock bull, purchased a few years ago from Mrs. Jones, of Brockville, Belvidere Stoke Pogis, out of Signal Hilda. The four-year-old cow, Messina's Daisy, also by Belvidere Stoke Pogis, and out of Maggie Messina. This cow was second prize winner as a three-year-old at the Winnipeg Industrial in 1898. Also a two-year-old heifer by Belvidere Stoke Pogis, out of Messina's Buttercup. Mr. Murray has still several bulls left for sale, and will sell his bull, Belvidere Stoke Pogis, now six years old, and has also a yearling, two-year-old, and three-year-old, all by the above sire, out of some of his best cows.

Mr. W. D. Flatt, Hamilton, Ont., reports the following recent sales from his Trout Creek herd of Shorthorns: To Geo. Leslie, Acton, Scottish Lad, a red bull, one year old, sire Scottish Pride (imp.), who is half-brother to Mr. Duthie's stock bull, Scottish Archer. Percy T. Martin, Princeton, Trout Creek Lad, a roan eight-months bull, a very thick, low-down calf, sired by Carlisle 24308. J. C. Mills, Preston, Minn., Buttermine, 6th Missie of Neidpath, Missie's King and Roan Rose. C. D. Wagar, Enterprise, Mariner, a red bull about one year, will make a very good one. Wm. McKenzie, Gravenhurst, Stanley, red bull, one year, a really good bull all around. James Graham, Grand Valley, Roan Duke, a bull one year old, an excellent one; also Ethel Buckingham - 18924 - a large, smooth cow, and well bred, tracing direct to Amos Cruickshank's herd. Thos. Sime, Grand Valley, Lady Lucy, by imp. Viscount; also her heifer calf, Trout Creek Lucy; this is a good, large, smooth cow, and a promising calf. Alex. Turnbull, Cranston, Scottish Duke, sire Scottish Pride (imp.), a large, strong, saipy bull, one year old, and a worthy son of his sire, who is half-brother to Scottish Archer, one of the favorite sires of Mr. Duthie's famous Aberdeenshire herd. J. E. Rowland, Newry, "Wentworth," red nine-months bull by Halton Duke, by imp. Prince Royal, and tracing to imp. Jenny Lind, a first prize provincial winner. Hugh Bentham, Pinemount, Scottish Fame, a really good bull, sired by Scottish Pride (imp.). D. Hysop & Son, Killarney, Man., Lady Isabella and Mountain Beauty, an excellent pair of heifers. Alex. Duncan, Ancaster, Jewel, of the Roan Duchess family, by a son of imp. Indian Chief; also bull calf, Trout Creek Victor. John Thompson, Pindis, Alta., Milton Rose. Halton Rose 4th, Milton Rose 2nd, Mina Rose, and two good, strong, yearling bulls. D. M. Ross, Waldgrave, N. S., one yearling bull. Mr. Flatt adds: From the last eighteen cows which have dropped calves sixteen have bulls. How is this for a record?

NOTICES.

Ditching by Horse Power.—The old style of pick and spade ditching is about as far behind as the sickle for harvesting grain, since practical ditching plows have come into use. The Larimer Ditching Plow, advertised in this issue, does not throw out the clay, but it does the much harder work of loosening it ready to be shovelled out. By using a cheap, simple and effective implement of this sort, it is but a short, easy matter to ditch a whole field.

Canadian Ideal Cream Separator.—A hand cream separator that will handle the milk of fifteen good cows in one hour, and do it well, is a desirable machine for farmers with either small or large herds. We occasionally hear persons who know nothing of the advantages of a separator objecting to them on the score of their cost, but those who speak from experience have a different tale to tell. See John S. Pearce & Co.'s (London, Ont.) advt. in this issue.

EGGS!

Rose-Combed Buff Orpingtons

Grand layers and table birds. Mine are the finest strain in England; four unrelated pens. 10s. 6d. per setting.

T. G. BINNEY,

Houghton Playden, Sussex, Eng.

BARRED PLYMOUTH ROCKS (Exclusively), J. K. FELCH'S ESSEX STRAIN.

FARMERS TAKE NOTICE, AND IMPROVE YOUR FLOCKS. Eggs from vigorous pure-bred stock with free range, \$1.00 per 15. Incubators supplied at lower rates. From choice breeding pens (as described in March 6th issue), mated by Felch, \$3.00 per 15.

(MISS) P. J. COLDWELL,

Constance, Huron, Ont.

DO YOU WANT EGGS

From the Best Strains Procurable?

If so, try us for B. and W. Cochins, L. Brahmas, Black Spanish, Langshans, Minorcas, and Javas. Buff Leghorns, S. L. Wyandottes, Red Caps, \$1.50 per 13. Barred Rocks (try our Rocks, they will please you), W. & B. Leghorns, and Pekin Ducks, \$1 per setting. Won 300 prizes last season. Satisfaction guaranteed. J. C. LYONS, Lucknow, Ont.

PEKIN DUCK EGGS

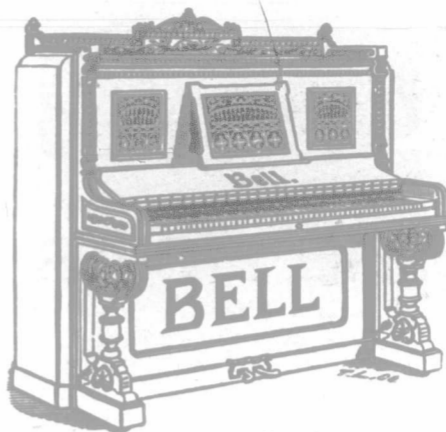
From grandly developed

PROLIFIC PRIZEWINNING STOCK.

\$1.00 for eleven. Perfectly packed.

E. A. SPENCER,

Dorset Farm, Brooklin, Ont.



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Superior in TONE, QUALITY, CONSTRUCTION and FINISH. Full description to be found in our Catalogues. Mailed free on application to

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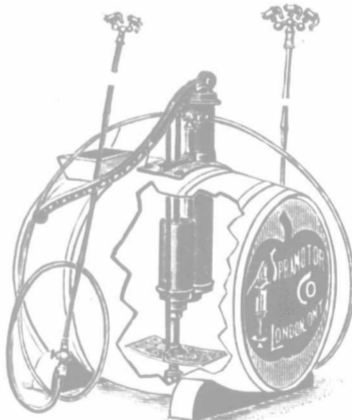
Or J. L. MEIKLE & CO., Winnipeg, Man. Agents.

WANT A BICYCLE?

For only \$29.50 we can sell you as good a wheel as you can buy elsewhere at any price. This is the description: Color, black; 1899 Model; name, FAMOUS; made by the Milwaukee Engineering Co., the largest makers of Bicycles in the U. S. tires—Morgan & Wright—best double tube; size of frame, 23-inch; flush tubing; 24-inch drop frame; three crowns; standard gear; new patent saddle; adjustable nickel handle-bars with leather grips; wheels, 28-inch, with hardest of ball bearings; dust-proof; 2-piece crank; rat-trap ball-bearing pedals; tool bag, wrench, oiler, and bell. Gents, 24 lbs.; women's, 25 lbs.—both same price, viz., \$29.50. Terms: \$4.50 with your order and balance of the money (viz. \$25) when the wheel reaches you. We send the wheels by express C. O. D., subject to examination in the hands of the Express Co. You pay the Express Co.'s charges. We accept no order unless \$4.50 comes with it as a guarantee that you mean business. Send your order promptly so as to get your wheel promptly. Our profits are small, and our terms are hard, but we have a grand good wheel to sell, and we can save you money if you can pay cash. You run no risk. If the wheel is not exactly as we represent it, don't pay the Express Co. the \$25. Remember, you examine the wheel thoroughly before you pay for it. Write at once to—

Stanley Mills & Co., Hamilton, Ont.

W. E. H. MASSEY, President of the Massey-Harris Co., certifies to the MERITS OF THE **SPRAMOTOR**

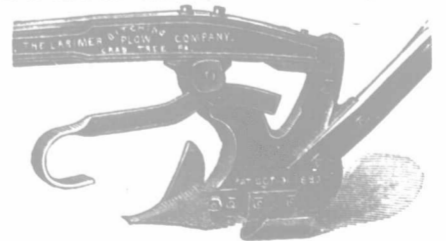


Toronto, November 9th, 1898. Spramotor Co., London, Ont.: Gentlemen,—The machines for spraying and white-washing you have supplied to Dentonia Park Farm have done their work well, and are quite satisfactory. I could not have believed there was so much value in spraying fruit trees. We had a good crop of apples, whereas our neighbors who used no spraying machine had practically none. Yours truly, W. E. H. MASSEY.

For further information regarding this peerless Spraying Apparatus, write for our 76-page copyrighted catalogue and treatise on the diseases affecting fruit trees, vegetables, etc., and their remedies (free). Address—

SPRAMOTOR CO., 357 RICHMOND ST., LONDON, ONT.

The first requirement for success on the greater number of Canadian farms is the underdraining of land.



THE LARIMER DITCHING PLOUGH

(Patented in Ottawa for Canada, and in Washington for the U. S.)

is the most reasonable in price, and at the same time the most durable and serviceable drain plough manufactured. It is running in all the Provinces of the Dominion, and every up-to-date farmer who is using it speaks well of it. Particulars about how to under-drain, and how to get what is to many the most important implement on the farm, by addressing—

R. G. SCOTT, Martintown, Ont.

"Mount Joy Farm."

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The property of Capt. Milloy (known as "Oak Park Stock Farm"), consisting of 550 acres, in the County of Brant, two miles from Paris and four miles from the City of Brantford. This is admitted to be one of the very best Stock and Grain farms in Canada. It is in a very high state of cultivation, and splendidly fenced throughout. On it is a most excellent

LARGE STONE MANSION

Beautifully furnished, and fitted up with all modern improvements: bath room (hot and cold water), and heated throughout by hot-water system. A very large NEW BARN, with

MAGNIFICENT STONE STABLING

Fitted up in the latest improved style, with all latest conveniences. Abundance of pure spring water, forced throughout the buildings by hydraulic ram.

This grand property is situated in the garden of Canada, on the Grand River. The soil is a rich clay loam. Inspection of farm and buildings is cordially solicited. For further description and illustration, see Christmas number, 1898, page 309. For terms, apply to

MESSRS. HOSKIN, OGDEN & HOSKIN (Solicitors for the proprietor), Toronto Street, Toronto.

SUPPORT HOME MANUFACTURE



CANADIAN-MADE HAND SEPARATORS

Turns easy. Open bowl. Well finished. Most durable. Price reasonable. Best investment farmers can make. Catalogue free. Dairy Supplies of Every Description. Genuine Patent Paper, for lb. prints, neatly and tastefully printed. By mail, post-paid. Prices reasonable. Write us.

No. 9.—Canadian Ideal. Cap. 30 gallons per hour.
JOHN S. PEARCE & CO.,
LONDON, ONT.

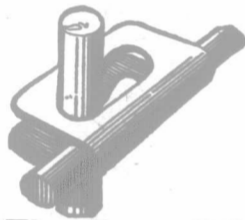


Do you keep a DOG?

Send for free pamphlet on feeding, treatment, etc., and catalogue of foods, etc.

To **SPRATT'S PATENT Ltd**
239 E. 56th St., New York.

FARMERS WANT IT AND WILL HAVE IT.

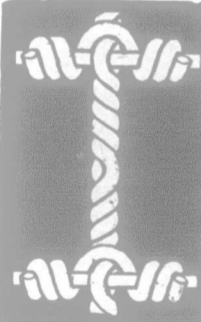


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And want you to sell it. Write for our illustrated fence catalogue describing it.

The Frost Wire Fence Co.
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\$8 to \$15 MACHINE
to weave your own fence of Galvanized Wire. Spring Wire. 32 inches high, at 25 Cts. per Rod. 320 buys wire for 100 rods. Agents Wanted. Catalogue Free. **GAFFNEY**
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WRITE FOR SAMPLE STAY and full particulars Machine \$10

Wholesale Price where we have no Agents. AGENCY FREE. NO DUTY TO PAY

THE BOWEN CABLE STAY FENCE CO.
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CYCLONE FENCE CO.
From 27 to 60 inches. From 7 to 11 cables.
Build Your Fence Cheap. 100 Rods Per Day.
TORONTO, ONT.

FENCE MACHINE
Still at the front! Not only the cheapest, but fastest and best. Price, \$5.00. Highest grade Coiled & other WIRE for sale. Write for particulars. Agents wanted. **McGregor, Banwell & Co., Windsor, Ont**

Persiatric Plant Spray

The most effective and highly-concentrated spray in the market. Has successfully coped with the dreaded San José Scale, and readily destroys all orchard and garden pests, such as grubs, worms, brown-rot, curled-leaf, pear blight, apple scab, and all forms of animal life or fungi. Persiatric Plant Spray has been tried and proved by leading nurserymen and farmers all over Canada. It does its work thoroughly and effectively, and gives unqualified satisfaction. If your dealer cannot supply you, write us direct. We invite correspondence.

Kills San Jose Scale.

THE PICKHARDT-RENFREW CO., LIMITED, STOUFFVILLE, ONT.

No trouble to lay...

EASTLAKE SHINGLES

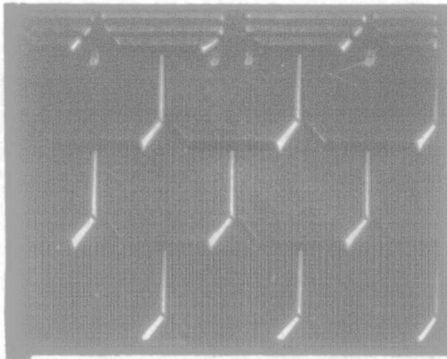
They are accurately squared and fit together perfectly at the sides by our patent telescopic side lock.

IN CHOOSING THEM YOU GAIN THE BEST

FIRE, LIGHTNING AND RUST PROOF ...PROTECTION.

Save time in the laying, and are sure of

ECONOMICAL, DURABLE SATISFACTION.



See that you get EASTLAKES—not an imitation. We will gladly send full information.

THE METALLIC ROOFING CO., LIMITED,
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Provan's Patent Reversible Carriers, Fork and Slings



HAVE now become a Standard of Excellence with the Farmers of Canada and the United States. At the World's Fair, Chicago, 1893, the only Medal and Diploma given on Hay Carriers, Forks and Slings was awarded to us on these Implements.

Following is a copy of the Judges' Award:

AWARD. "For open trip hook to receive the sling; automatic clutch, adjustable for size of load desired; ingenious design of stop block, which enables perfect control of carriage; no springs required for locking car, which has motion in all directions; compact form of fork, which can be tripped in any position; the car is reversible and of double action; for novelty, ingenuity, and usefulness. Excellence of material and construction."

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Dentonia Park Farm

EAST TORONTO (Coleman P.O.)
W. E. H. MASSEY, Proprietor.

Dentonia Jersey Herd

Winners of the herd prize at both the Toronto and London fairs last fall, also some thirty other prizes. The herd comprises fourteen head of imported cattle, many of them winners of valuable prizes on the Island; also some thirty animals carefully selected from the best Canadian herds. Heifer and Bull Calves, also good Cows, always on sale.

Dentonia Trout Ponds

"Eyed" Trout Eggs, also yearling and two-year-old Brook Trout for sale. Market trout supplied in season.

Address, **DENTONIA PARK FARM, COLEMAN, ONT., CANADA.**

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Portage la Prairie and intermediate points.
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Morris, Roland, Miami, Baldur, Belmont, Wawanesa, Brandon, Also Souris River Branch, Belmont to Elgin.....
Lv. Mon., Wed. & Fri..... 10.40 a.m.
Ar. Tues., Thurs. & Sat..... 4.40 p.m.

CHAS. S. FEE, G. P. & T. A., St. Paul.
H. SWINFORD, General Agent, Portage Ave., Winnipeg.

CANADIAN PACIFIC RY. TIME TABLE

	WINNIPEG.	LV.	AR.
Montreal, Toronto, New York and east, via all rail.....			11 30
Montreal, Toronto, New York and east, via all rail.....			10 00
Portage la Prairie, Brandon, Vancouver and west.....			13 00
Portage la Prairie, Brandon, and Morden.....			6 30
Portage la Prairie and M. & N. W. Railway.....			8 30
Portage la Prairie and M. & N. W. Railway.....			15 00
Greta, St. Paul, Chicago.....			14 10
Emerson.....			3 15
West Selkirk.....			18 15
West Selkirk.....			10 00
Stonewall.....			13 20
Morden, Deloraine and intermediate points.....			12 10
Glenboro, Souris, Melita and Alameda.....			12 30
Glenboro, Souris, Melita and Alameda.....			15 45
Prince Albert.....			13 00
Prince Albert.....			14 40
Lethbridge.....			13 00
Lethbridge.....			14 40
Edmonton.....			13 00
Edmonton.....			14 40
Macleod.....			13 00
Macleod.....			14 00
Nelson, Rossland and all Kootenai points.....			13 00
Dauphin Ry points.....			6 30
Dauphin Ry points.....			21 00

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FOR THE FARM AND GARDEN.
Our stock includes all that is best in GARDEN AND GRASSES, FIELD ROOTS, CLOVERS, SEED GRAIN, FLOWER SEEDS, AND FLOWERING PLANTS.
Illustrated Catalogues mailed free on application.
William Ewing & Co.,
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Sheep Shearing Revolutionized.
New Chicago SHEEP SHEARING MACHINE.
Greatest Machine ever Invented. Price, \$15.
(Used and endorsed by the Editor of the American Sheep Breeder.)
Don't butcher your sheep. Saves 1/2 to 1 lb. more wool per head.
*Drop us a postal and we will tell you all about it. We also make Horse Clipping Machines. Chicago Flexible Shaft Co., 150-160 Huron St., Chicago.

Vollmar's Perfect Washer

has gone through various stages of improvement, until it stands, as its name indicates, a perfect washer. All machines are fully warranted. For full particulars, price, etc., apply to
PHILIP VOLLMAR, CHATHAM, ONT.
Live Agents Wanted.

**"McLaughlin Carriages
Are Good Carriages."**

SPECIAL FEATURES:

Strictly A Standard Wheels (not B. C. or D. Standard).
Finest Grade English Cast Steel Springs (not American open hearth).
Patented Noiseless Rubber and Brass Washers.
Patented One-Lever Top.
Patented Steel Safety Fifth Wheel (not unsafe malleable iron).
Forged Steel Beach Irons, Brace Ends, etc., etc. (not malleable iron).
Patented Noiseless Whiffletree Plates.
Combined Dash Rail and Rein Holder.



YOU run no risk of being deceived in buying a McLAUGHLIN CARRIAGE, because we make "one grade only and that the best." When an unscrupulous dealer tries to palm off another make of carriage, representing it to be as good as ours, you will know he is after the "Almighty dollar," because our carriages of necessity cost him more than any other make.

Consider all the above before buying.
96-page Catalogue mailed free, direct or from agents.

The McLaughlin Carriage Co.,
OSHAWA, ONT.

**BUCHANAN'S
(Malleable Improved)
PITCHING MACHINE**
For unloading hay and all kinds of loose grain.



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



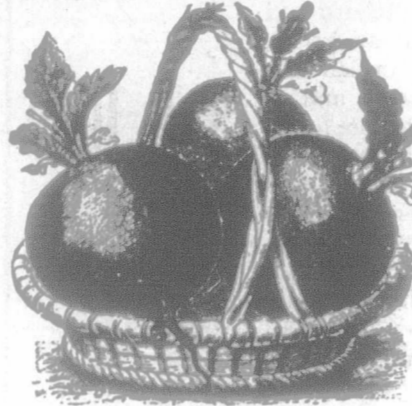
The Common-Sense Sheaf-Lifter
Works in connection with Pitching Machine, and is the most complete apparatus ever offered to the public for pitching sheaves. Sheaves left in the mow just as they come from the load.

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

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ENGRAVING CO.**
92 BAY ST
CUTS BY ALL PROCESSES
LIVE STOCK A SPECIALTY.

**CURED TO STAY CURED
HAY FEVER**
Dr. HAYES, Buffalo, N. Y.

**SEEDS 12 VARIETIES 25c
FOR**



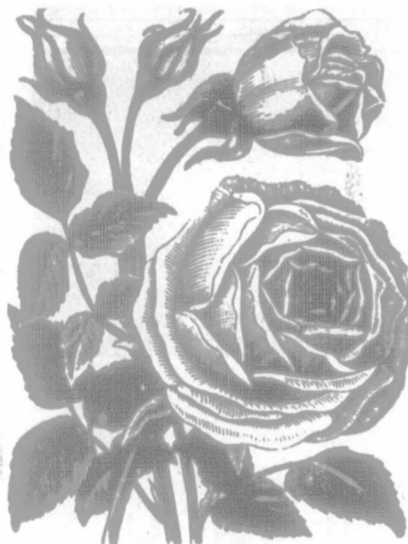
No. 1-Beet, ECLIPSE, Round.

FREE Providing this Coupon is Cut Out and sent to us with an order for 12 packets for 25c. (postal note or silver) we will include 1 packet New Snowdrift Pinks. Price, 15 cents—FREE OF CHARGE TO ADVOCATE SUBSCRIBERS.

- TAKE YOUR CHOICE.**
THEY ARE SENT BY MAIL POST-PAID. SAFE ARRIVAL GUARANTEED. FULL SIZE PACKETS.
- VEGETABLES—ORDER BY NUMBER.**
1. Beet, Eclipse, round
 2. Beet, Egyptian flat, round
 3. Cabbage, Winningstadt
 4. Cabbage, Fottler's Brunswick
 5. Carrot, Half-long Danver's Scarlet
 6. Carrot, Oxheart or GuerandeScarlet
 7. Cucumber, Chicago Pickling
 8. Cucumber, Long Green
 9. Celery, Golden, Self-Blanching
 10. Herbs, Sage
 11. Herbs, Savory
 12. Herbs, Marjoram
 13. Lettuce, Nonpareil (Cabbage)
 14. Lettuce, Denver Market (curled)
 15. Muskmelon, extra early Hackensack (Nutmeg)
 16. Watermelon, Early Canada
 17. Onion, Large Red Wetherfield
 18. Onion, Yellow Globe Danvers
 19. Parsnip, Hollow Crown
 20. Radish, French Breakfast
 21. Radish, Rosy Gem, white tipped
 22. Squash, Hubbard
 23. Tomato, extra early Atlantic
 24. Tomato, Dwarf Champion
- FLOWERS.**
25. Asters, mixed
 26. Mignonette, sw't
 27. Pansy, mixed
 28. Petunia, mixed
 29. Nasturtiums, tall mixed
 30. Sweet Peas, fine mixed
 31. Wild Flower, garden mixed

ADDRESS ALL ORDERS:
WILLIAM RENNIE, TORONTO, ONT.

6 GRAND TEA ROSES FOR 25c.



FOR 25c. we will send six choice Ever-blooming Tea Roses, named, our selection. All will bloom abundantly this season.

5 Hardy Garden Roses. Fine named sorts, our selection, for **25c.**

"QUEEN" BULB SET:
20 choice Bulbs and Tubers, including 2 lovely Dahlias, 4 showy Cannas, 6 assorted Gladiolus, 6 Pearl Tuberoses, and 2 Auratum or **50c.**
Queen of Lilies for "Queen" Bulb Set (10 Bulbs) for 25c.

"Champion" Plant Collection:
12 showy plants for the house and garden includes one each Night-blooming Cactus, Parrot Feather, Parlor Ivy, Chrysanthemum, Geranium, Saxafraga, Ever-blooming Rose, Helianthus, Crimson Spirea, Boston Ivy, **50c.**

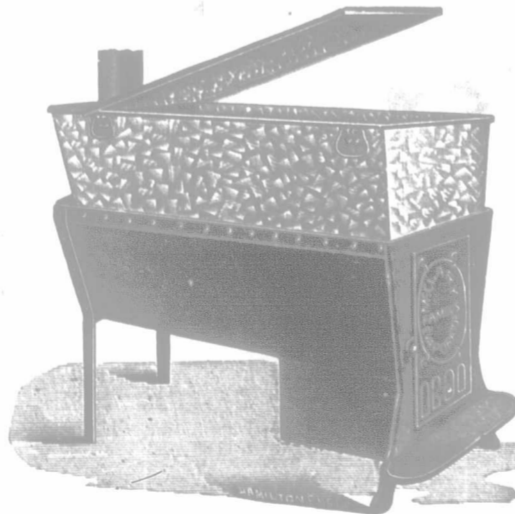
A CHANGE for lovers of flowers to secure a fine collection of Roses, Bulbs and Plants for small cost, all of best quality, sure to please, sent post-paid on receipt of price, safe arrival guaranteed.

FREE On condition of mentioning this paper when ordering any of the above collections, we will include free, 1 Tuberoses Begonia Bulb or 1 Spotted Calla Lily Bulb, the buyer's choice.

Remember our **FAMOUS SEEDS** may be had from leading merchants, or ordered direct from us. It pays best to plant "Good Seed." Catalogue sent free.

The Steele, Briggs Seed Co. Ltd.
CANADA'S GREATEST SEED HOUSE. **Toronto, Ont.**

Famous EVAPORATOR or FEED BOILER



For Poultrymen, Stock-Raisers, and Dairymen.
Can also be used for Boiling Sap; being light, can be readily carried into the bush.
Does the Quickest Work with Smallest Cost.
Boiler is made of galvanized steel, thoroughly tight and removable for cleaning. Fire-box, grates and linings are made of cast iron, which will not burn out quickly.
Body is made of steel, which heats quickly, and is properly protected against warping and burning out.

DIMENSIONS, ETC.
Width, Depth, Height.
SIZE OF FIRE-BOX . . . 19 40 11
SIZE OF FIRING DOOR . . 11 x 12 inches.
CAPACITY OF BOILER . . 50 gals. Imp.

The Newest and Most Successful Boiler Made in Canada.

THE McCLARY MANUFACTURING CO.,
London, Toronto, Montreal, Winnipeg, and Vancouver.
If your local dealer cannot supply, write our nearest house.

IT PAYS TO ADVERTISE IN THE
FARMER'S ADVOCATE
AND HOME MAGAZINE.

SHEEP BREEDERS' ASSOCIATIONS.
American Shropshire Registry Association, the largest live stock organization in the world. Hon. John P. Ryan, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary Lafayette, Indiana.

WINDMILLS

Do YOU NEED AN **ECONOMIC POWER?**
The Canadian Steel Airmotor Will GRIND, CHOP, FILL SILOS, CUT FEED, ETC., ETC.
AND GIVE YOU A BOUNTIFUL SUPPLY OF WATER.
Saves TIME LABOR MONEY
PUMPS, TANKS, WATERING BASINS, GRINDERS, ETC.
WRITE THE **Ontario Wind Engine and Pump Co., LIMITED,**
Liberty St., **TORONTO.**
Largest Windmill manufacturers under British Flag.

Woodstock Steel Windmills

FOR POWER AND PUMPING
DANDY
WOODSTOCK WIND MOTOR CO. LIMITED
WOODSTOCK, ONT.
GET A DANDY WITH GRAPHITE BEARINGS. THEY RUN WITHOUT OIL. STEEL TOWER PUMPS, TANKS, SAW TABLES, GRINDERS, AND WATERING TROUGHS.
Woodstock Wind-Motor Co., Limited.
WOODSTOCK, ONT. Write for catalogue
Agents: SYLVESTER BROS. MFG. CO., Brandon, Manitoba.

Patent Roller and Ball Bearing Galvanized Steel WINDMILLS, TOWERS, and FLAGSTAFFS
"MAPLE LEAF" GRAIN GRINDERS.
IRON AND SPRAY PUMPS.
FANNING MILLS.
Send for new Illustrated Catalogue.

OLD SHAPLEY & CO. LIMITED
BRANTFORD CAN.

COCKSHUTT FLOW CO. (Limited),
Agents for Manitoba and N.W.T., Winnipeg.

ILLUSTRATED STOCK SALE BILLS
If you contemplate a sale of live stock, place your orders with us. We can supply illustrations for almost any breed. They cost no more than cheap printing, and draw intending buyers to the sale.

THE LONDON PRINTING AND LITHO. CO. (LIMITED)
Lithographers and Printers, London, Ont.

FAMILY KNITTER!
Will do all knitting required in a family, homespun or factory yarn. SIMPLEST KNITTER ON THE MARKET.
We guarantee every machine to do good work. Agents wanted. Write for particulars.
PRICE, \$8.00.
DUNDAS KNITTING MACHINE CO.,
DUNDAS, ONTARIO.

BEFORE YOU BEGIN

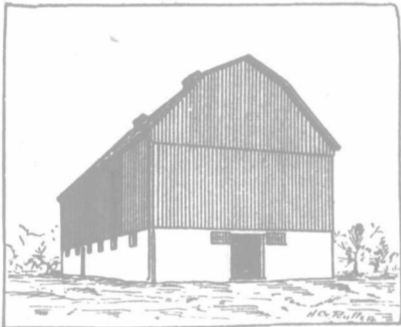
to paint anything, a hitching post or a house, a barn door or a parlor floor, see that you have the right paint for that particular purpose. No paint has ever been made equally good for painting everything—buggies and houses and furniture. The greatest triumph of modern paint-making is the making of a different paint that looks best and wears best for each class of painting. It has taken years to find out just what ingredients and what proportions are needed for each. Each must be ground and mixed by special machinery with the utmost skill and accuracy. If you go by the labels on the cans of

THE SHERWIN-WILLIAMS PAINTS

you are sure of getting the best that can be made for your purpose. They have a reputation of 30 years' success, and every can is fully guaranteed. Our little book on painting will help you—it is free.

THE SHERWIN-WILLIAMS CO., Paint and Color Makers.
Canadian Dept., 21 St. Antoine St., Montreal.
FOR SALE BY JAMES REID & CO., LONDON, ONTARIO.

WITH COMPLIMENTS
ESTATE OF JOHN BATTLE,
THOROLD, ONT.



This is the Barn that the Hurricane Blew Down.

But the walls Built with Battle's Thorold Cement stood firm as a rock.

THE
Thorold Cement
IS TESTED BY A HURRICANE.

Read what Mr. Burt. Kennedy, of Ilderton, Ont., says about Thorold Cement:
ILDERTON, ONT., January 27, 1899.

ESTATE OF JOHN BATTLE, Manufacturers Thorold Cement, THOROLD, ONT.:
Dear Sirs,—We think Thorold Cement is the best Cement in use for building walls and floors in stables. Last June I built a wall 36 x 100 x 11 feet high at back and 8 feet at front. We were twelve days building it, under the management of Mr. P. Bowey, Ilderton (five men in all). We raised the barn on the wall in twelve days after it was completed. The next day there came a hurricane, which blew down the framework. It all fell on the wall but one bent. The posts were 26 feet long, and seven of them broke. The wall stood the test, which was a very trying one, and it only chipped off a little in one place. I intend putting floors in this spring with Thorold Cement, for I think no other Cement could have stood such a test.
Yours truly,
BURT. KENNEDY.

For Free Pamphlet with full particulars, address

ESTATE OF JOHN BATTLE,
THOROLD, - ONTARIO.

Agents wanted in unrepresented districts. -om

GOOD FARM FENCE

should turn all kinds of live stock and even tramps; should expand and contract according to the weather; as always to be tight; should stand all storms—even fire and last indefinitely.

The Coiled Spring Page
is just such a fence.

Its virtue is attested by the fact that there is more of it in use than all other makes combined. Prices lower than ever this year.

THE PAGE WIRE FENCE CO., (Ltd.)
Walkerville, Ont.
Or DAVID ROSS, N. W. Agt.,
Box 855, Winnipeg.

GOSSIP.

In writing to advertisers, mention the "Farmer's Advocate."

Mr. I. Devitt & Sons, Freeman, Ont., write:—"We sold recently a fine pair of Clydesdale fillies rising one and two years old to Mr. H. Lester, of Forest, Ont. They were sired by Douglass Macpherson, and out of Topsy, by Duke of Flemington. They are a well-matched pair and will no doubt be heard from in the near future. We have still a few fillies and mares for sale. All of these are sound and in good condition. In stallions we have Douglass Macpherson [1791] and Grandeur II. [2216]. Both horses have wintered well and are now in excellent form. Any one requiring a horse this season would do well to see them before purchasing."

The American Hereford Breeders' Association have organized and arranged for a grand show and combination sale of Herefords, to be held in October this year at Kansas City, Mo. A full classification and very liberal prizes have been mapped out, there being six prizes in each section, and the first prize in each section being \$75, followed by \$60, \$45, \$30, and \$10. Besides these prizes, there are senior and junior sweepstakes in bulls and females of \$100 each, a grand sweepstakes, a silver cup, special for best bull and best female. For aged herd, six prizes, ranging from \$150 to \$15, and the same list for females. For groups of sire and four females, either sex, under four years old, \$100, \$75, \$50, \$25, and \$15. For produce of one cow, two animals, either sex, under four years old, four prizes of \$75 to \$30. There are also liberal prizes for fat stock, thoroughbred and grade.

Wm. Grainger & Son, Lonsdale, Ont., write in sending in a change of advertisement:—"Would just say that we never had such enquiries. Sales have been brisk, at a considerable increase of price on former years. We have sold six Shorthorn bulls and two heifer calves since the New Years to the following parties: Beau Ideal 2nd to Wm. Drager, Brodhagen, Ont.; Earl of Minto, to Hugh McDougal, Underwood, Ont.; Truce Bearer, to Kirk Connell Bro., Tiverton, Ont.; Stanley's Duke, to E. Caister, Tavistock, Ont.; Golden Crown, to A. Evans, Chilliwack, B. C. We shipped this one out with Mr. Butler, of Devonham Centre, and Mr. Evans writes us back that he likes him well. He says that he is even a better bull than he expected to get. Those calves are all got by the pure Cruickshank bull, Beau Ideal = 22554 =, by Sittytton Stamp (Imp.), and Lobo Liddle we sold to Joseph Horn, of Atwood, Ont. We have also a right first-class cow both for beef and milk, and are a good strong, thrifty lot. Our cattle are coming through the winter in nice condition. We find that advertising in the ADVOCATE is a good investment. Enclosed find the change of ad. We would say that the young bull we are offering for sale is the finest one of a right good one, a great-grandson of 2nd Fair Maid of Hullett = 9047 =, the Chicago dairy test cow."

NOTED CLYDESDALE STALLIONS.

The scarcity of really first-class draft stallions should cause the advertisement of Mr. Alex. Galbraith, of Janesville, Wisconsin, to be of great interest. His Clydesdales include Scotch winners of the very first order, possessing fashionable breeding. There is room for a number of high-class Hackneys and Coach horses in many parts of Canada for the coming breeding season. Mr. Galbraith offers a number of well-selected animals of these classes that will do some districts much good.

NOTICES.

Up-to-Date Bicycles.—In our advertising columns we found the extensive advertisement of the Welland Vale Mfg. Co., whose large plant at St. Catharines is this season again taxed to its utmost capacity to meet the demand for their up-to-date bicycles. As the firm puts out four grades of wheels, and set their price accordingly, they are in a position to meet each and every buyer. Their one-piece crank is one of their strong points, and as they guarantee that part to be perfect the buyer runs no risk. While visiting the firm in February we were shown many decided improvements which would seem impossible to improve upon, especially about their bearings, and with their scope of specifications each man every one can get suited. Get their catalogue.

A Great Commercial Enterprise.—Among the many best and greatest things that North America possesses, certain manufacturing establishments always stand out conspicuously. This is notably true of The Sherwin-Williams Company, the home plant of which, at Cleveland, Ohio, holds a unique position in the manufacturing world. The Sherwin-Williams Company owes its distinction not only to the fact that it is the largest producer of paint in the world, but as well to the system and method of manufacture, the splendid conduct of its factory and the institutions established for the benefit of employees. Besides the main plant at Cleveland, The Sherwin-Williams Company have factories at Chicago and Montreal, and their own warehouses and branch offices at New York, Boston, and Toronto, with several auxiliary interests at other trade centers. The Cleveland plant consists of fifteen large buildings conveniently arranged for shipping both by railroad and water. The Company's printing and advertising establishment is in a separate building adjacent to the main plant. For the convenience of employees a dining-room and kitchen is provided where lunches are served to all employees of the Company. Special wash-rooms and bath rooms are also provided, while perhaps the most unusual feature in the establishment is a laundry, in which all the Company's towels, aprons, table linen, etc., are laundered. The Company always extend a cordial invitation to visiting paint dealers who desire to inspect their factories.

The Results Were Extraordinary.

WAPPELLA, N.-W. T., Feb. 13, '97.
The Lawrence-Williams Co., Cleveland, O.:
I keep your "Gombault's Caustic Balsam" in stock. I have sold it for the last three years I have been in the drug business in Ontario and this country, but it is not known to the majority. I sold a bottle which I saw used under my own supervision which gave most universal satisfaction. The results were extraordinary. I sell it here at \$1.50 per bottle. I am quite a horseman, and would be pleased to use any pictures of the noted racers of the day, to our mutual benefit. J. A. MACDONALD.

HORSEMEN! THE ONLY GENUINE IS



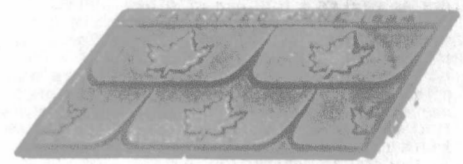
See large advertisement on page 408, Sept. 5th (1898) issue, and which is of unusual interest to the readers of the FARMER'S ADVOCATE. And any horseman interested in a reliable remedy can well afford to investigate the matter.

The Lawrence-Williams Co.,
21 Front St., West, Toronto, Ontario.

DO YOU REQUIRE ROOFING?

WE HAVE THE LATEST IN

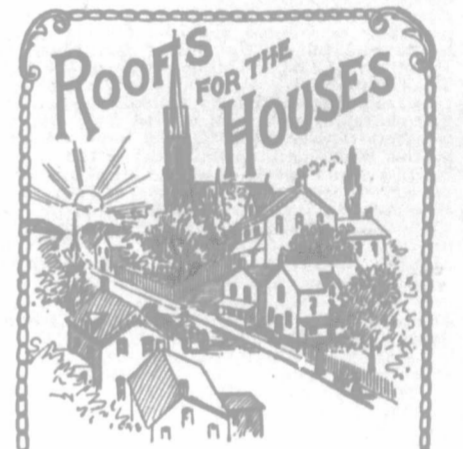
METAL SHINGLES



Patent "Safe Lock" Shingles

Interlock each other on all four sides, leaving no edges or laps to open up. They cost no more than wooden shingles, are practically FIRE and LIGHTNING proof, give a building a handsome appearance, and are absolutely rain and storm proof. Can be put on easily by anyone. We send free samples and catalogue to intending purchasers.

THE METAL SHINGLE AND SIDING CO. LIMITED.
PRESTON, ONT.



32 Years Ago

We started the manufacture of sheet metal building materials, and this long experience enables us to offer intending builders all that is desirable in Steel Roofing, Steel Siding, Steel Ceilings, etc.

We Prefer

That you purchase through the trade, still if your dealer cannot give the information you desire, or offers a substitute "just as good," write us, "The Pedlar Patent Shingles" are the best, and the best cost no more than the poorest.

Pedlar Metal Roofing Co.
OSHAWA, CANADA.

For sale by J. H. ANSDOWN, Winnipeg
Agent for Manitoba and N.-W. T.

What is Your Work?

If you are dissatisfied with your situation, your salary, your chances of complete success, write to The International Correspondence Schools, Scranton, Pa., and learn how others so situated are getting

An Education by Mail

Students in the courses of Mechanical or Electrical Engineering, Architecture, or any of the Civil Engineering Courses are soon qualified for salaried drafting room positions. Write for pamphlets.

The International Correspondence Schools,
Box 999
Scranton, Pa.

GOSSIP.

At the sale of Shorthorns belonging to Mr. L. Brodsky, Plover, Iowa, March 15, the five-year-old bull, Strathearn Chief, brought \$500; the eleven-month-old bull, Bawn Athene, \$300; and the sixteen-month-old bull, Highland Chief 3rd, \$235. Four females sold for \$400 to \$505. Ten bulls averaged \$215.50; 39 females averaged \$229.23; and the 49 head averaged \$226.42.

Messrs. W. & H. Jones, Mt. Elgin, Ontario, breeders of Poland-China hogs, write, under date of March 20th, as follows: "My stock have come through the winter in excellent shape, and our March pigs are coming very strong. Black Bess 3rd No. 1221 has a litter that were farrowed March 5th, now fifteen days old, that are from Klondike No. 1170. This bear is a litter brother to Lady Klondike, and he is getting good pigs; there was a really all, and at present are the best litter we ever had—extra good color and long, deep fellows. We have several two and three months old on hand and all good ones."

THE MEADOWVALE SALE OF SHORTHORNS.

The sale of S. J. Pearson & Son's Valley Home herd of Shorthorns, at Meadowvale, Ont., on March 22nd, was exceedingly successful, satisfactory and creditable to all concerned. There was a large attendance of solid and substantial farmers from the local district, who did plucky bidding to keep a portion of the stock in the county, and there was a really good representation of the well-known breeders, as well as a number of other enterprising men from various parts of the Province, who were evidently convinced of the value of improved stock, and bound to have it if it could be secured at a reasonable price. There were also several commissioned bidders for breeders in Manitoba and B. C., and it is understood that several animals were bought for a well-known U. S. breeder, and one goes to Oregon. With such a cheerful feeling prevailing it was a comparatively easy and pleasant task for the popular auctioneer, Mr. John Smith, M. P. P., to take the bids, which came freely and fast, a kindness which we are sure was duly appreciated by the worthy salesman, who had just risen from a sick bed, and evidently had the sympathy of the company who stood by him faithfully, giving such close attention to business that the cattle were all disposed of in an hour and forty minutes, with the exception of the aged imported cow Mins Lass, which found no bidders on account of her condition, there being doubts as to whether she will breed again. The cattle were mostly in good condition, but several of the cows which were nursing calves were only in very moderate condition, being heavy milkers. Their breeding, however, was very desirable, and their produce—the young things in the herd—were of a good stamp. The cattle were sold in the order of the catalogue, and No. 1, the roan two-year-old heifer Nonpareil 50th, a right good one, was probably the best bargain of the day at \$190. Mr. Bye, of Guelph, being the fortunate purchaser. No. 2, the roan two-year-old Mins Lass 10th, from imported sire and dam, was generally considered the best individual female. She fell to the bid of Mr. Platt, of Hamilton, at \$245, the highest price of the day. The Linton-bred Sowerby's Lass, the best matured cow, low-set, blocky, thick-fleshed and of fine character, with bull calf at foot, went to Goodfellow Bros. at \$200. The imported bull British Statesman, sire of most of the young stock, a grand specimen of the breed and well preserved, became the property of Fitzgerald Bros., Mt. St. Louis, Ont., at \$225, and two of the young bulls reached the \$200 mark. The average on the twenty-two head sold was \$144.17. Following is the list of animals sold with purchasers and prices:

Cows and Heifers.

Nonpareil 50th—2 years; B. Bye, Guelph.	\$190 00
Mins Lass 10th—2 years; W. D. Platt, Hamilton.	245 00
Sowerby's Lass—5 years; Goodfellow Bros., Mackville, Ont.	200 00
Cecilia 12th—3 years; R. Miller, Stouffville.	165 00
Nonpareil 48th—3 years; R. Miller, Stouffville.	180 00
Jubilee Jill—1 year; R. E. Johnston Pickering.	135 00
Nonpareil 45th—5 years; R. Miller.	145 00
Nonpareil 51st—1 year; R. Miller.	110 00
Nonpareil 53rd—1 year; Ira B. Van Natta, Ballinafad.	90 00
Bessie Earl—1 year; Frank Brown, Oregon, U. S.	115 00
Favorite 6th—3 years; Jno. Cunningham, Norval.	75 00
Nonpareil 43rd—6 years; A. McKinney, Brampton.	80 00
Nonpareil 39th—10 years; G. D. Hood, Guelph.	110 00

Bulls.

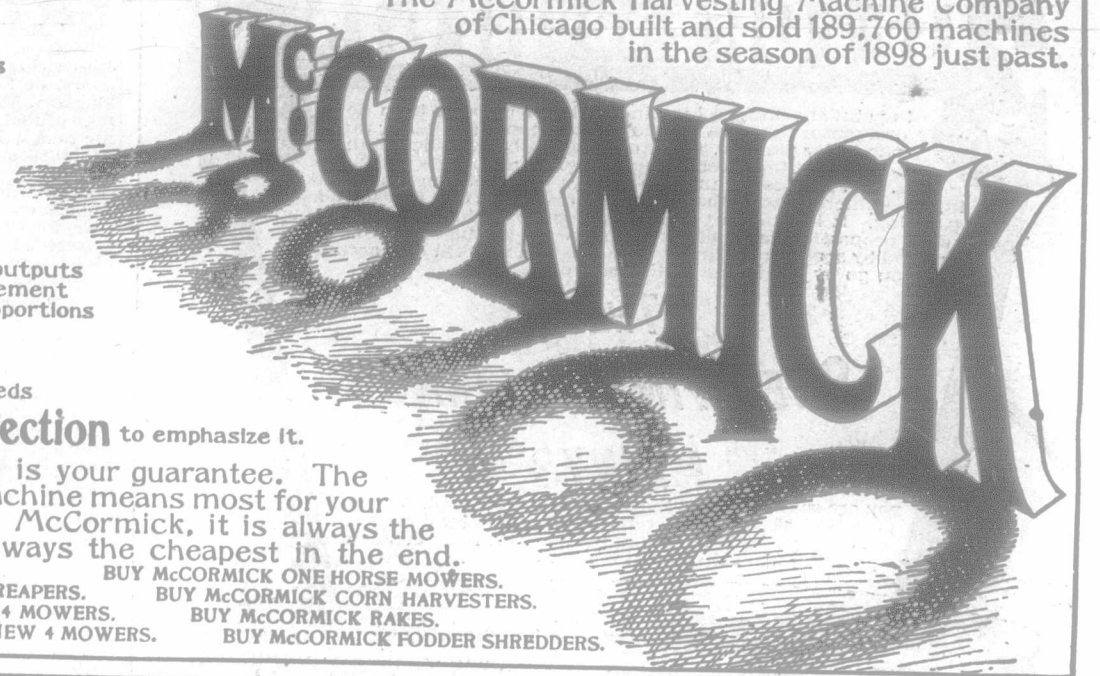
British Statesman—7 years; Fitzgerald Bros., Mt. St. Louis.	225 00
Scottish Statesman—18 months; James Thompson, Belton.	200 00
Gloster Statesman—13 months; John Hawkins, Lavender.	200 00
Royal Statesman—14 months; Geo. McBean, Acton.	135 00
Royal Champion—15 months; J. H. Kinneer, Souris, Man.	165 00
Diamond Statesman—11 months; W. Dredge & Son, Nassagaweya.	150 00
British Subject—11 months; Wm. McLeland, Dundalk.	85 00
Royal Duke 2nd—12 months; Samuel Moore, Cooksville.	85 00
Noble Statesman—4 months; Wm. Barker, Paris.	100 00
Grand Duke—4 months; Boucher Bros., Huttonville.	40 00
13 females sold for \$1,810; average, \$141.00.	
19 males sold for \$1,345.00; average, \$149.44.	
23 animals sold for \$3,155.00; average, \$144.17.	

CATARRH CAN BE CURED.

Catarrh is a kindred ailment of consumption, long considered incurable, and yet there is one remedy that will positively cure catarrh in any of its stages. For many years this remedy was used by the late Dr. Stevens, a widely noted authority on all diseases of the throat and lungs. Having tested its wonderful curative powers in thousands of cases, and finding to relieve human suffering, I have endeavored to benefit all sufferers from Catarrh. A full and complete English, with full directions for its use, and a paper, W. A. NOYES, 920 Powers Building, New York, N. Y.

Truth is stranger than fiction
You know it
And
You forget it
Until something happens
Then
You realize it
Thus
That enormous output
Of machines
For which
McCormick is famous
All over the world
That output
Which dwarfs all other outputs
By this shrewd advertisement
Shows its mammoth proportions
And you are astonished
Yet you knew it
Knew it well
Truth is truth but it needs

The McCormick Harvesting Machine Company
of Chicago built and sold 189,760 machines
in the season of 1898 just past.



A Strange Reflection to emphasize it.

Our great sale is your guarantee. The most modern machine means most for your money. Buy the McCormick, it is always the best and it is always the cheapest in the end.

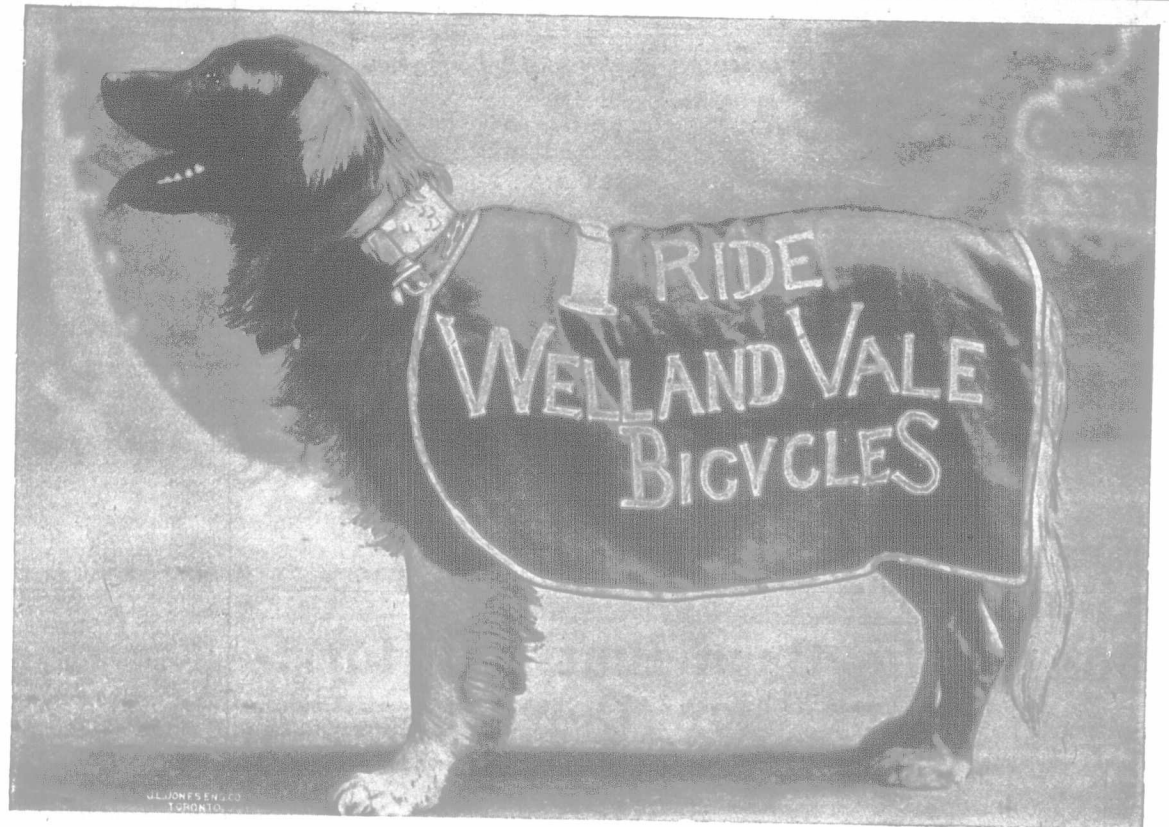
- BUY McCORMICK BINDERS.
- BUY McCORMICK DAISS REAPERS.
- BUY McCORMICK BIG 4 MOWERS.
- BUY McCORMICK NEW 4 MOWERS.
- BUY McCORMICK ONE HORSE MOWERS.
- BUY McCORMICK CORN HARVESTERS.
- BUY McCORMICK RAKES.
- BUY McCORMICK FODDER SHREDDERS.

"Chainless"

"Perfect"

"Garden City"

"Dominion"



WELLAND VALE MFG. CO., Limited,

ST. CATHARINES, ONT.

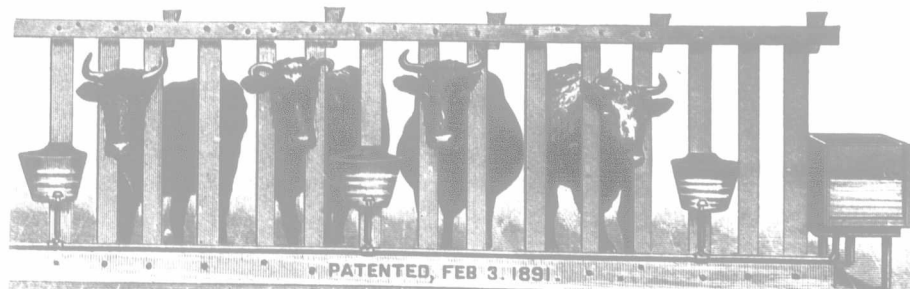
GOVERNMENT ANALYSIS

LABORATORY OF INLAND REVENUE,
OFFICE OF OFFICIAL ANALYST,
Montreal, April 8, 1895.

"I hereby certify that I have drawn, by my own hand, ten samples of the **ST. LAWRENCE SUGAR REFINING CO.'S** EXTRA STANDARD GRANULATED SUGAR, indiscriminately taken from ten lots of about 150 barrels each. I have analyzed same and find them uniformly to contain:

99 ⁹⁹/₁₀₀ to **100** per cent. of pure Cane Sugar, with no impurities whatever."

(Signed) **JOHN BAKER EDWARDS, Ph. D., D.C.L.,**
Prof. of Chemistry and Public Analyst, Montreal.



RANEY, SELBY & COMPANY, BOX 620, KINGSTON, ONTARIO.

IT DEPENDS ON THE PROCESS

Used in the manufacture of salt whether the production is of the highest grade or not.

The "Vacuum Process" for making salt is the most modern and scientific.

It makes a finer and purer salt, most readily dissolved, and perfectly even in crystal.

WINDSOR SALT

Manufactured by
The Windsor Salt Co.,
LIMITED,
WINDSOR, ONT.

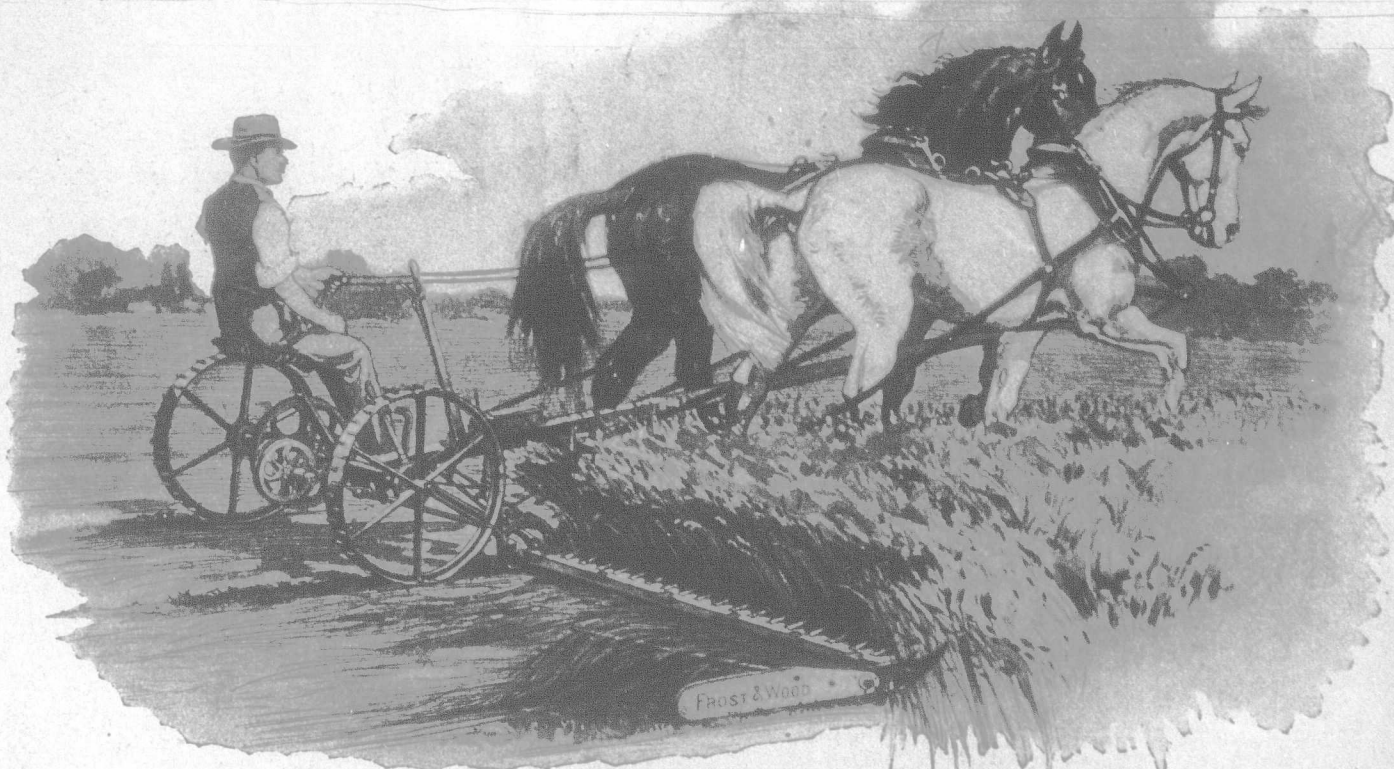
29 of our Students have recently taken good situations; 4 positions remain unfilled.

CENTRAL Business College
STRATFORD, ONTARIO,

gives the "best" in the line of business or shorthand education. In fair competition our graduates are nearly always chosen, while others are turned aside. Enter now. Circulars free.

W. J. ELLIOTT, PRINCIPAL.

PLEASE MENTION FARMER'S ADVOCATE



4, 5 AND 6 FOOT CUT.

"O YES!" Our No. 8 Mower will start in heavy grass without backing the team, and will cut grass any other mower can cut. Will run as easy and last as long. We sell our machines on their merits, and build our reputation on the "quality," not the quantity, of goods we make.

THE FROST & WOOD CO., LTD.,

HEAD OFFICE AND WORKS: SMITH'S FALLS, ONT.

Toronto Branch: 77 Jarvis Street. Winnipeg Branch: Market Square.

BINDER TWINE

FARMER'S

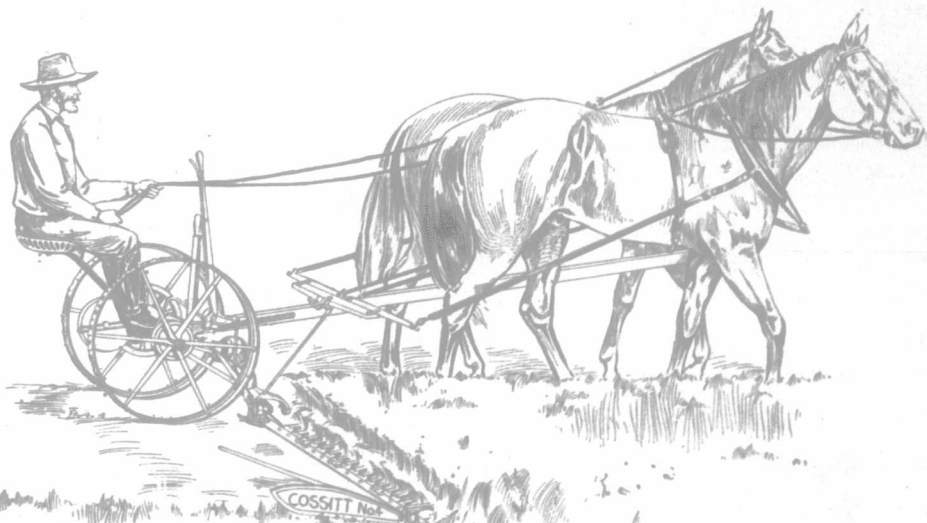
PURE MANILA, 650 FT. TO LB.
SPECIAL MANILA,
TIGER, STANDARD.

Farmers! Don't be taken in. There is none "just as good." These twines will not bunch at the knotter, and a Binder will run all day without stoppage, thus saving time, annoyance and a "lot o' cussin'."

We pack our twine in bags of the size of ordinary grain bags, and we are not ashamed to put our name upon it. Don't take any other.

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That has made itself famous throughout Canada, complete with Patent Roller Bearings and Foot Lift. Customers write pronouncing it the strongest, simplest, and the most free-cutting machine on the market. Send for Catalogue.

HEAD OFFICE AND WORKS: om BROCKVILLE, ONT.
PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

Mr. Reuben Gentry, of Danville, Ky., who showed Berkshires with great success at the Omaha exhibition last year, and afterwards sold out his herd by auction, has accepted the position of manager of the Berkshire herd at the Biltmore farm of Mr. George Vanderbilt. Mr. Gentry went to England in January for an importation of Berkshires to strengthen the Biltmore herd, and is returning with a large number of pigs (principally young things), with a few noted breeding boars and sows selected from a number of the best known herds.

At the Birmingham Shorthorn show and sale, March 1st to 3rd, the total entries were 455. The first prize bull, over 12 and under 15 months old, Manor Victor, owned by Mr. A. Hiscox, jr., Motcombe, was sold for 305 guineas (\$1,075) to Hon. W. F. D. Smith. Mr. Atkinson's Estimation won first in the class over 10 and under 12 months, and was sold for 200 guineas for Buenos Ayres. Mr. T. R. Wilkin's Cashier, bred in Aberdeenshire, 4 years old, won first in the aged class and brought 77 guineas. For bulls over 15 and not over 21 months, Captain Duncumbe's Pearl Diver was first, and brought 68 guineas; while Mr. Wyatt's Lavender Lad 3rd, the second prize winner in the same class, brought 140 guineas. Hon. W. F. D. Smith being the buyer. Mr. Brierley's first prize bull calf, Royal Jeweller, sold for 120 guineas to Mr. Jones, and Mr. Folgamb's second prize calf, Beau Sabreur, brought 82 guineas; fifty-four head averaged 232 1/2 lbs., or about \$312.

At the Inverness bull show and sale, March 1st, Lord Lovat's first-prize winner in the junior class, and the champion of the breed at this show, Falstaff, a magnificently fleshed and shaped red son of Royal Star, was purchased by Mr. Duthie, of Collynie, at 200 guineas. Mr. McLennan, of Buenos Ayres, being his closest competitor. Dictator, from the same herd and by the same sire, fell to Mr. Perrins, of Ardross, at 50 guineas. For his four bulls at Inverness, Lord Lovat realized an average of 232 3/4 lbs., which is even better than his Perth average of 273 1/2 lbs. The next best average in the Shorthorn section was Rosebough's 234 1/2 lbs. 6d. for four, Bainakyle being third with 233 1/2 lbs. 6d. for five. The highest average in the Polled-Angus section was made by the Countess Dowager of Seafield, who sold three at 244 1/2 lbs. each. Mr. Bruce was second with 237 1/2 lbs. for four, and Sir George Macpherson Grant third with 233 1/2 lbs. for six. The highest priced bull was Prince of Waterside, sold for 51 guineas.

HIGH-PRICED DODDIES.

At the public sale of Aberdeen-Angus cattle made by J. Evans & Son, Emerson, Iowa, at South Omaha, March 10th, the bull Gay Lad 18338 sold for \$3,050 to Thomas Mattison, South Charlestown, Ohio. Another bull, Lad of Emerson, brought \$1,005, and three others from \$500 to \$800. The cow Blackcap's Beauty brought \$1,105, and Blackbird of Emerson \$1,000. W. A. Henry, Denison, Iowa, being the buyer of both. Fifteen other females sold from \$500 to \$700 each; twenty-eight bulls averaged \$446.60; sixty-nine females, \$393; ninety-seven head, \$408 each.

IMPORTED BUFF ORPINGTON EGGS.

Poultrymen who wish to secure or maintain a position in the very forefront in the matter of introducing new breeds of fowls of a very desirable sort will be glad to see the advertisement in this issue of the new English breed—Rose-combed Buff Orpingtons—eggs of which are offered by Mr. T. G. Binney, Houghton Green, Playden, Sussex, Eng. Mr. Binney is an honorable gentleman and notable breeder of this desirable, comparatively new sort of fowls, and has a number of well-selected, high-scoring, unrelated pens. Orders received by him will have his prompt and careful attention, and will be packed carefully and well.

GOSSIP.

S. WICKS & SON'S JERSEY CATTLE, COLLIE DOGS, AND POULTRY.

From time to time Messrs. S. Wicks & Son, whose place at Mount Dennis, Ont., is but a few miles from the City of Toronto, have never lost what they considered a good opportunity to improve their Jersey herd. Not only choice pedigrees, but good animals have been selected, and to the mating of Violet's Leo and Perla's King with such cows as Violet of Glen Duart and Perla's Queen a few choice young things of both sexes are held for sale. Worthy of special mention are a couple of young solid colored bulls, constructed upon dairy principles, with sufficient constitution to recommend them, which should attract the attention of parties requiring young dairy sires, or to head pure-bred herds.

In Collie dogs the firm are making rapid progress, and four brood bitches are kept in the stud, with a fifth rising to maturity, and as Mr. Wicks has access to the great imported dogs, Benedict K. C. S. B. 4619, and Woodmasterne Comrod 85, K. C. S. B. 4623, we would consider him in a position to produce something choice. As a show dog Benedict has made a great record, winning 8 firsts at Toronto, 10 specials in England, 1st in Montreal in 1898, as well as winnings at less important competitions. In the future the firm intend to advance rapidly along this line, and some really good things may be expected.

In the poultry business Mr. Wicks has made breeding and developing a life-long study. He keeps in touch with many of the best English breeders, and is constantly receiving consignments of eggs and birds. He is running several different varieties, as his advertisement shows, and this spring has imported a consignment of the new variety known as Buff Orpingtons, which promise to become very popular in the near future. As Mr. Wicks was working on a modern incubator at the time of our visit, he will likely be heard from upon that line in the near future.

SALE OF SHIRE HORSES AT THE LONDON SHOW.

At the sale of Shires held in connection with the London show last month, 162 stallions and mares averaged 274 lbs. 7d. The highest price was 400 guineas for the aged stallion Hichin Drayman II. The two-year-old stallion, Hallmark, by Calwick Heirloom, brought 310 gu.; the three-year-old stallion, Moor's Statesman, by Regent II., 300 guineas, and the two-year-old filly, Jubilee Shire Queen, by King of the Toms, 250 guineas, which was the highest price for a mare.

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Is wonder-working in its effects. No other preparation in the world can equal it. It is the only speedy and sure cure for GALLS, SORE BACK AND SHOULDERS, CORNS, SCRATCHES, MUD SCALDS, ETC. National Gall Cure does its Good Work while the Horse is Working! For Sore Tests on Corns it gives immediate relief and certain cure.

OUR SPECIAL OFFER!

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Circulars (specially prepared by a veterinary surgeon) on these diseases, on application.

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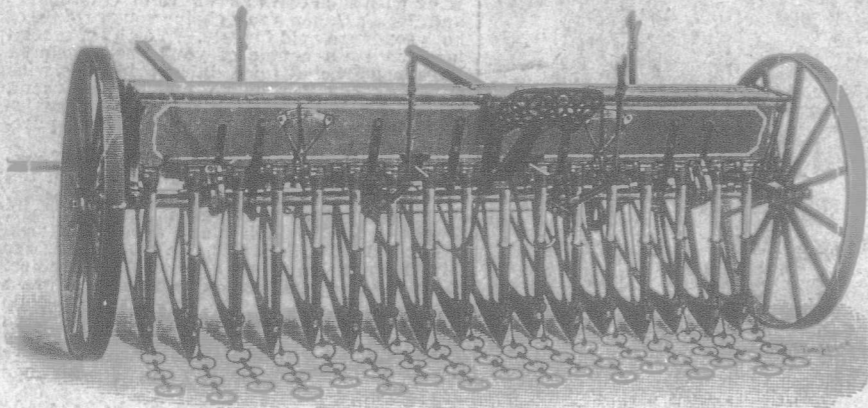
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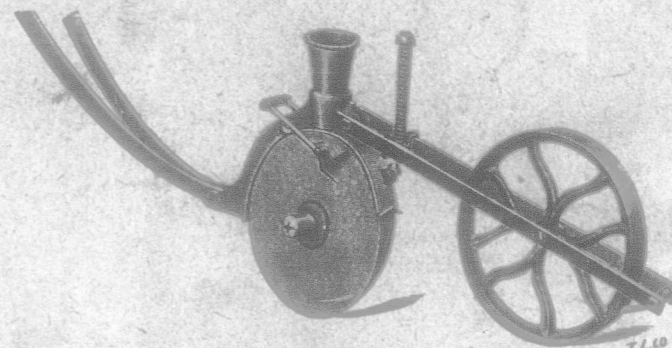
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Tilting Lever for Adjusting the Shoes Without Stopping Your Team.
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When this remedy was discovered no other real cure was known. No other positive cure is yet known. FLEMING'S CURE was first introduced in Saskatchewan, and from there its reputation has spread over the entire continent. It is the only remedy endorsed by leading ranchers, shippers, and stock journals. It is positively guaranteed; money is returned if it fails. One bottle usually cures one to five cases.

Like all other articles of exceptional merit, it is imitated in external respects, but these imitations wholly lack the distinctive qualities of the genuine.

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BETTER RESULTS WITH CATTLE

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MITCHELL'S ANTI-LUMP JAW

Will remove the lump, cure the disease, and place the animal in as healthy a condition as any other in your herd.

Try it! If it does not do what we claim for it we will refund your money on request. Valuable information and treatise on Lump Jaw free.

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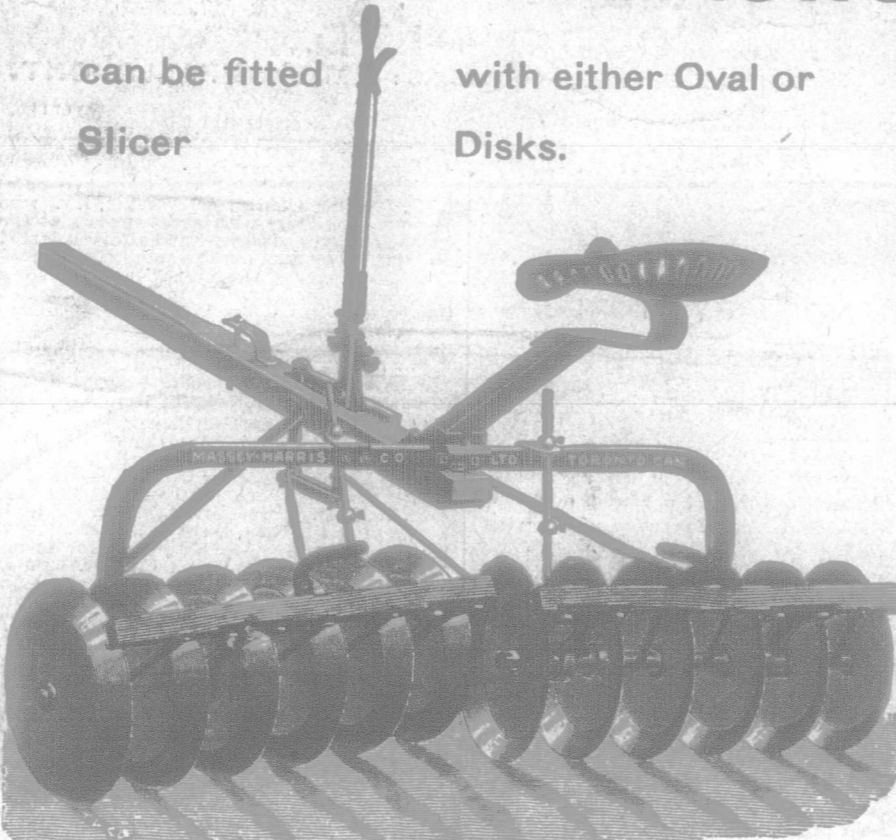
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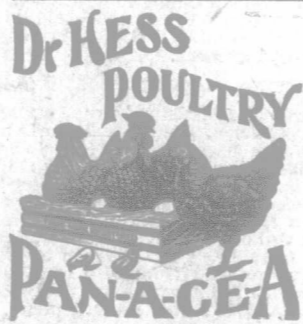


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For Horses, Cattle, Hogs, and Sheep; an appetizer, a flesh producer, a blood purifier and tonic. It expels worms.

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Cures Diseases and Makes Hens Lay.

Its wonderful effects are at once shown when fed to young fowls, preventing or curing gapes, indigestion, diarrhoea or other bowel disorders; promoting a healthy, vigorous growth of muscle, bone and feathers. Use it and the ills of poultry-raising will rapidly disappear.

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The effective and convenient article for destroying lice on horses, cattle or poultry, ticks on sheep, fleas on dogs, etc. Just the thing to dust in the nest and on the sitting hen. It destroys the large, gray-head lice that are so fatal to chicks and turkeys.

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