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THE CELEBRATED GERMAN COACH STALLION, LUDWIG NO. 1452,
THE PROPERTY OF MR. GEORGE COCKBURN, BALTIMORE, ONT.

EDITORIAL.

Fruit trees may be planted until they start into growth. Pruning may be done even after that time, as it is better to prune late than not at all. All dead wood should be removed, as it only causes decay and death among the healthy branches. If trees show signs of becoming stunted, a good dressing of manure on the surface over the roots will be serviceable. Currants and gooseberries are greatly benefited by a coating of manure worked into the surface soil.

Many of the old apple-orchards of Canada are dying out, and should be replaced by new ones. Many farms are practically without orchards, or, at all events, the output is so limited and so inferior in quality as to hardly merit the name "fruit growing." Farmers will make no mistake in setting out on a well-chosen, well-prepared site a new orchard. Procure the young trees from a reliable nurseryman, choose well-tried sorts adapted to the locality, let them be mostly winter fruit, and do not select more than three or four varieties. Do not delay the planting, for it will be several years before the orchard comes into bearing.

At the recent annual meeting of the Dumbarton (Scotland) Agricultural Society one speaker mentioned the fact that while the week previous "the best home-grown hay was selling in Glasgow at 60 shillings," "which," remarks a contemporary, "not unnaturally disconcerted the dairy farmer, who was fond enough of cheap feeding stuffs, but had a good deal of hay to sell. The truth is, farmers here have rather undervalued Canadian hay, but, as a matter of fact, it is equal, if not superior, to almost every kind of hay grown in this country, except the very best products of the Carse farms."

Our live stock market reports are becoming decidedly more cheering reading for the feeders, though the long delay in the up-turn of prices has been, we must say, rather surprising. Choice beef cattle have been selling in Chicago at \$6.00, compared with \$4.50 a year ago; hogs, \$5.42, compared with \$4.95; lambs, \$6.00, compared with \$5.75; and sheep about the same. Cattle and hogs have been moving up in this country also, as would naturally be expected, though Canadian prices, at corresponding dates, have dragged along considerably lower than in the States. It is encouraging to note the reference to sales in Chicago of good driving horses at from \$225 to \$1,000 each.

Meeting Foreign Competition.

The Scottish Farmer has been giving its readers some very plain-spoken advice on the subject of meeting competition from America. Reference was made to the competition which recently resulted in the best Polled cattle being sold in Glasgow market at from 3s. to 4s. less per cwt. than the American bullocks were making at Yorkhill.

"The butchers not unnaturally complain that while farmers grumble at the low prices ruling for prime fat Scotch cattle, they make no attempt to meet the changing circumstances of the time by sending a regular and steady supply into the market all the year round. The consumers eat beef all the year round, but the British farmer feeds his cattle as if butcher meat were only eaten during a few months of winter. From May to September, it was urged, a Scotch bullock fit for killing could hardly be got in the Glasgow market, and, consequently, the butchers had to go elsewhere for supplies. When the farmer has made his cattle fat, and sends them to such a market as Glasgow, the butchers have got into the way of going to Yorkhill, and they are bidding against each other there, while the home-bred cattle are being sold dirt cheap in the market. Bemoaning low prices will not help the farmer when he feeds his cattle in this irrational way, throwing them on the market all in a lump. The only way in which foreign competition can be met is by producing the best article, and doing so in a regular, uniform way, so that the customers will not be under any temptation to remove their patronage to another shop. The man who can obtain 1s. 5d. per pound for fresh butter can laugh at Danish products; and had many of the good butter-makers around Glasgow stuck to that form of dairying, and left the sweet milk trade to those who are not butter-makers, Danish butter would never have gained such a foothold in Scotland as it now enjoys. The truth must never be forgotten, that there is plenty of room at the top. Produce the best; regulate the supply to the demand; agitate for the abolition of preferential carrying rates; let every article, whether home-grown or foreign, be sold under its own name—these methods may not draw the sting of American competition, but they will mitigate the keenness of the conflict."

Our Illustration.

On the title page of this issue appears a portrait of the celebrated German Coach Stallion, Ludwig No. 1452, the property of Mr. George Cockburn, Baltimore, Ont., bred by Mr. D. Greebe Nevenbrok, Arnst, Elsfleth, Germany. This popular horse was foaled in 1889, sired by August No. 1140, by Ardo No. 1000, dam Piquedame No. 944, by Emigrant No. 925. He is a handsome dark bay, with black points, standing 16½ hands high; beautiful, neat, clean head, with prominent, bright eyes; long, handsomely arched neck, full chest, strong and oblique shoulder, short back, and very strong over the loins, well put-on tail, with plump and smooth quarters and thighs; clean, well-muscled limbs, good feet, and broad heels. He shows great knee action, and moves with grace that always wins the admiration of everybody. As a colt, he was a prize-winner in Germany, also at the World's Fair, and at the St. Louis Fair he took first prize over all Coach stallions, and first in the all purpose ring, defeating the horses from Kentucky and adjoining States—the first time in twenty-two years a stallion won such honors that did not go all the gaits, that prize nearly always going to Kentucky horses. Since Mr. Cockburn purchased him he exhibited him at the Industrial, Toronto, last fall, and secured first prize, and also in New York, December last, he was successful in carrying off first honors. We hope to see him at the Spring Stallion Show, Toronto, this week.

Mr. Cockburn has been a breeder of Clydesdales for a number of years. At present he has two stallions, several brood mares, and a number of promising young things. Abbot of Renwick (5474), [575], is a compactly built horse; when fitted would weigh about 2,000 pounds. He has a good set of muscular, clean legs, well feathered, with good feet and pasterns, a prominent eye, and fine disposition. He was foaled May, 1884, being imported in 1887 by R. Beith & Son, Bowmanville. He was bred by Geo. C. Symington, Kirkcarswell, Kircudbright; sire, Belted Kniget (1395); dam, Kirkcarswell Trim (413).

Gay Prince [5796], was bred by Mr. John Ralston, Millmain, Stranraer; sired by Prince Edward 1254, dam Lady Wildflower 4974. He is a low-set fellow, with clean legs, well muscled, good feet, excellent chest, and a good stock getter.

Agriculture in New Brunswick.

The New Brunswick Government report on agriculture for 1894 indicates that that Province is paying more attention to dairying than any other branch of farming. Importations of thoroughbred dairy sires have done much to improve the milking herds. It is within the last few years that the farmers of that Province are finding out the value of corn for fall and winter feeding. Agricultural societies seem to be holding their own through the dull times. Says the Secretary, Julius L. Inches: "We would like to see a little more healthy rivalry among the agriculturists of the Province, especially with the breeders and dairymen. What can adorn a farm more beautifully than a herd of well-bred cattle? As a rule the well-bred ones are the well-fed ones, and, consequently, those are the most profitable to keep."

The dairy associations have been well-sustained wherever organized, but yet there are many districts without organizations, which, no doubt, will fall into line in the near future. The Provincial Dairy Commissioner, Mr. John Robertson, formerly of London, Ont., is doing faithful and successful work in assisting the industry along the best lines. The travelling dairy, under the management of Mr. Alward, of Fredericton, visited many districts, giving lessons on home dairying, corn growing, etc. The cereal and root crops were a fair average, being best where best looked after.

The cultivation of apples is increasing rapidly from year to year, which, it is expected, will continue, as the country seems well adapted to their production. Until within the last few years little attention was paid to proper varieties and care of the trees, but now increased knowledge is directing effort along more advanced lines. Small fruit cultivation is receiving more attention than formerly.

Owing to the low price of beef in recent years, few farmers devote their attention to the breeding of beef cattle. Shorthorns and Polled-Angus are the breeds most in use for beef production. In dairy breeds, Jerseys, Holsteins, and Ayrshires seem to be about equally popular. Although New Brunswick is well adapted to sheep raising, the very low price of mutton hinders the development of large flocks. Swine being such an important adjunct to the dairy, hog raising has made rapid strides in the last few years, which, too, is largely aided by the ease with which corn, oats, buckwheat, and potatoes can be grown.

Agriculture in Nova Scotia.

The report of the Secretary of Agriculture, Geo. Lawson, LL. D., Nova Scotia, shows that the season of 1894 was fairly good for farmers. Although spring seeding was a little late, and the summer's rainfall phenomenally small, the few showers that came kept the crops progressing until about July, when pastures became so parched that supplementary feeding had to be given the stock, which is causing a shortage in feed this spring.

The crops of the Provincial Farm, at Truro, under the management of Mr. F. L. Fuller, taken as a whole, were very good; but late grains, such as corn, buckwheat, and beans, suffered to some extent from the early frosts. Of oats, five varieties averaged 36 bushels per acre; barley, about 20; buckwheat, 16; potatoes, about 175; mangels, 800. Silage corn—Angel of Midnight, Long Yellow, Pearce's Prolific, Pride of the North, give about 10 tons per acre. Turnips, carrots, parsnips, and beets gave good returns.

Nova Scotia has eighty-nine Agricultural societies, all of which have condensed reports given in the above report. Many of these societies own syndicate pure-bred stock sires. Some of them take Agricultural periodicals conjointly; they also buy their seed grain in some instances in the same manner. Some support exhibitions; others have learned that fewer and larger shows are more beneficial. An effort is being made in some societies to advance the interests of the Provincial show, making it of more general benefit to the lesser farmers. Legislative grants to these societies are generally utilized in purchasing thoroughbred stock, which is greatly improving the stock of the country.

The Provincial Legislature, in February, 1894, passed an Act to encourage the establishment of joint butter and cheese factories, by allowing them, under specified regulations, a grant of \$200 the first year in operation, and \$100 for each of the two succeeding years. Butter alone may be made the first year, but after that both butter and cheese, in reasonable proportions at suitable seasons. Last year fifteen applications for recognition were sanctioned by the Government, twelve sets of by-laws were approved, and ten \$200 grants paid.

The report of the Provincial School of Agriculture, at Truro, under Prof. H. W. Smith, shows that 42 students registered last year, the average attendance being for five months. One hundred and twenty-five Normal students received regular instruction also. Six local Agricultural schools were in operation last year. Of the 300 students, 188 received special agricultural instruction, making a total of 230 students in Nova Scotia receiving instruction in agriculture from that school last year. Diplomas and certificates were issued to eight students.

As our readers are aware, an excellent Provincial School of Horticulture, under Prof. Faville, is also maintained at Wolfville, N. S.

The official report of the Provincial Exhibition at Halifax indicates that the show of horses (150 entries) was not up to the average; cattle (327) good; sheep (225) above the average; swine (84, and 10 litters) representative; poultry, not large. As might be expected from Nova Scotia, the Fruit Growers' Association made a magnificent display. Among other references, we note the following: "Herbert Wright, of Guelph, Ont., who has before served as judge in this Province, judged all the live stock except horses, and confirmed the impression he had already made as an honest, hard-working, impartial judge." Special "attractions" were tried, but we are pleased to note that the results did not justify the expense involved.

A Story by Mrs. E. M. Jones.

Probably no book of the kind ever attained such world-wide celebrity in so short a time as "Dairying for Profit; or, the Poor Man's Cow," by Mrs. E. M. Jones, of Brockville, Ont. We feel safe in saying that thousands of ADVOCATE readers have been both delighted and profited by its racy, sympathetic and helpful pages, and it therefore affords us peculiar pleasure to begin in our Home Department, of this issue, the publication of a story entitled, "GOLD ELSIE'S RIDE," in three parts, from her gifted pen. From the every-day theme of dairying to the writing of this touching little tale seems a wide step, but the real interest with which Mrs. Jones invested the former was a guarantee of her capabilities along other literary lines. The readers of our Home Department, and there are a host of them throughout America and elsewhere, will appreciate with the keenest interest "Gold Elsie's Ride" (a horsewoman's story), which, by the way, seems very appropriately timed, though not intentionally so, for the issue of the ADVOCATE appearing concurrently with the great Canadian Horse Show in Toronto.

A Single Copy Worth the Year's Subscription Price.

Wm. Shier & Sons, Marlette, Mich., under date of March 20th, 1895, write us as follows:—"We think very highly of the ADVOCATE. Many times a single number is worth the subscription price."

STOCK.

Breeding Heavy Mares.

We all know that a great many splendid draft mares will not have foals this spring, simply because they were not bred last year. We have no doubt many owners of such mares are undecided whether or not to breed them during the present season. The decision will largely be governed by the hopefulness or lack of it in the individual men.

It is well to remember before deciding not to breed, that it takes five years from the time of service till a mature horse is obtained. There is no doubt in our minds but that long before five years have gone round, good horse stock will be in lively demand. The number of old, superannuated nags that have been destroyed during the past winter is enormous, which will to some extent make an opening for better animals. [In Toronto, not to go further from home, hundreds of horses have been fed to hogs, or ground up into fertilizers, since last autumn, many of which would have brought from \$15 to \$30 five years ago.] The street life of a draft horse is short, therefore the necessity of a constant supply of fresh blood, to keep up to the demand. We would not advocate breeding inferior mares, nor using nondescript sires, as that is unwise at any time. Unsound or ill-shaped mares should be sold off the farm if possible, or put to work which will pay their keep, without raising a foal to fill the same undesirable position as their dam in the horse-world.

Farmers who own sound, shapely draft mares, need have no hesitation in breeding them to first-class stallions of the same breed. Remember that the best is none too good, and it is economical to use such, even though the service fee is a little high. To those who can muster faith in the demand for good horses, which is sure to come, a splendid opportunity is now on hand to purchase a few good draft mares from men who have them and have lost heart, and want money rather than mares.

Good draft horses even to-day will sell at a price that will buy nearly as many necessities of life as the price of the same stamp of horse would purchase some year ago. Undoubtedly coach, park, and saddle horses, when of the right stamp and well trained, will sell more satisfactorily than any other sort just now; but when we compare the necessary expense and risk in bringing each of these classes up to saleable condition, the difference in profit does not seem so much in favor of the lighter sort. One writer puts it in this way: "Out of a dozen attempts by the general farmer to prepare for market a high-priced light horse, more failures than successes may be expected, while four out of five attempts to rear a saleable draft horse at a paying figure will be successful. A half-dozen colts of the draft type will probably net the farmer, at maturity, more money than the same number of the light type."

Without discussing this proposition, this much is certain: that the finer bred colts demand an extra amount of handling, breaking, training, and fitting, which the average farmer is not in a position to undertake; besides, a slight mishap or defect is a much more serious matter in the case of a fancy horse.

We notice that in an address by Alexander Galbraith, Secretary of the American Clydesdale Association, to a Wisconsin Farmers' Institute, he mentions that draft geldings sold in Chicago a few weeks ago as high as \$200 at auction, when common and undersized ones were going as low as \$50. In that Western country we hear of \$150 to \$200 being paid for good, smooth, 1,600 or 1,700-pound horses of proper age and conformation. Mr. Galbraith also says that he "firmly believes that before there is time to raise any more horses old enough to work, we will experience such a revival in the general demand that farmers will wonder why they could have been foolish enough to leave off breeding merely because prices had temporarily become low."

We can also take a lesson from the present feeling across the Atlantic. At the recent annual meeting of the Clydesdale Horse Society of Great Britain and Ireland, attention was drawn to new features in the outlook for breeders there. One element in the horse trade of the year, fraught with influence on Clydesdales, was the growth of foreign importations, which during the three years ending 31st December, 1894, numbered about 10,000 head. The majority of these were of a lighter type than the Clydesdale, but the abnormally cheap price at which they reached the British market produced a glut among that sort of horse stock. The Society learns from this fact that their efforts must be directed toward producing the heavier type of horse, suitable for the demands of the street traffic, which advice is, without a doubt, just as applicable on this side the Atlantic as the other.

Of course, in the case of men with light breeding mares, and whose inclinations do not run in the heavy-horse groove, these observations do not apply, and by them an entirely different course must be pursued, but which does not come within the scope of this article.

The death occurred recently, in London, Eng., of Gen. F. G. Ravenhill, R. A., Inspector of Remounts for the British Army (under the new system which came in force in 1887), also a member of the Royal Commission on Horse Breeding. He was very familiar with the resources of nearly all portions of the Empire as regards horse breeding of the hunter or saddle type.

Our Scottish Letter.

This cannot but be a Clydesdale letter. The great Spring Show, at Glasgow, of stallions of the breed is over, and the public are able to form their own opinions on the present state of horse-breeding in Scotland. One very gratifying feature in connection with the show is the number of pedigreed Clydesdale horses which have this year been bought for service in England, and there is also some indication of a revival in the export trade. One horse was purchased for exportation to Australia, and arrangements were made for several horses travelling in England. Clydesdale stallions will, during the coming season, be found in Hants, Essex, Kent, Sussex, Lancaster, Yorkshire, and Durham, as well as in the three Border Counties of Northumberland, Cumberland, and Westmoreland. More English buyers have been seen at Scottish sales within the past few weeks than has been the case for many years; and whether English Shire horse breeders like it or not, it is pretty clear that there are many engaged in supplying horses for the English towns, who believe that nothing beats the Clydesdale stallion for producing good geldings. Unless the Clydesdale men are able to show good grounds for this belief, they need not imagine that English horse-breeders are likely to patronize their breed, and a little more enlightened patriotism would convince them that it is their wisdom to keep the value of the Clydesdale as the sire of commercial stock very prominently before the public.

The show of stallions was marked by some novel features. Undoubtedly the most notable circumstance was the success of horses got by Sir Everard 5353. This splendid big horse was bred by Mrs. Lamont, Killellan Toward, Argyllshire, and was got by Top Gallant 1850, out of a mare by a son of Prince of Wales 673, and behind that of very old Clydesdale descent. He was purchased by Mr. William Taylor, Park Mains, Renfrew, from his breeder, when about eighteen months old; and when three, four and five years old, was awarded the premium of the Glasgow Agricultural Society at the Spring Show. He was subsequently, for two seasons, in Kintyre, and thereafter in Central Banffshire and Dumbartonshire, and during the ensuing season he will stand at home. In 1893 his son, The Summit 9442, was awarded the Glasgow premium, and was first in his class throughout the season. Last year another of his sons, Baron's Pride 9122, was champion stallion at the H. & A.'s Show, and last week two of his sons, Sir Morell Mackenzie 9416 and Royal Exchange 10000, were awarded the Glasgow senior and junior premiums. When he was awarded the premium in 1888, Mr. Taylor paid the forfeit, and sent his horse into Kirkcudbright. When there, Sir Everard produced Sir Morell Mackenzie, whose breeder was Mr. Andrew Mitchell, Barcheskie, one of the most successful exhibitors and breeders of Ayrshire cattle and Clydesdale horses. In the following year, when in the Glasgow district, he produced The Summit and Barron's Pride; and in his first season in Kintyre he produced Royal Exchange. Thus, wherever located, Sir Everard has been successful in producing stock of the highest order of merit. The Summit is owned by the heirs of the late Mr. Robt. Spittal, Kenmuir, Tollcross, who bred him. Baron's Pride is owned by Messrs. A. & W. Montgomery, and was bred by Messrs. R. & J. Finlay, Springhill, Baillieston. Royal Exchange was bred by Mr. Robert Clark, Skerobin, Campbelltown, and is owned by Mr. W. Clark, Netherlee, Cathcart. The aged horse, Sir Morell Mackenzie, was purchased at the recent Eastfield sale for 220 gs. He stands 17.3, is proportionately built on short legs, and altogether is a grand example of a big cart-horse. His dam is a good breeding mare, got by Duchal 2737. Amongst her other progeny are the two gets of Macgregor 1487, the big, handsome stallion Macandrew 9940, and the unbeaten yearling filly of 1894, May Queen, now owned by Mr. William Graham, of Edengrove, Penrith.

The competitions at the Scottish Stallion Show are divided into two sections: the first confined to horses which are unshired, and the winners in which must accept the premium of the Glasgow Agricultural Society, and travel in the district on terms stipulated by the Society; and the second open to horses already shired, as well as all others that may compete. In this second section there are three classes, viz., for two-year-olds, three-year-olds, and aged horses. In addition, there is a competition for the Cawdor Challenge Cup presented by the Clydesdale Horse Society for the best registered Clydesdale exhibited. In the confined section, as already indicated, the premiums were won by the two sons of Sir Everard already referred to, but they had stronger competition to face in the open section, and did not succeed in winning there. In the aged class the winner was Mr. Alexander Scott's Prince of Fortune 9826, from the Berryards stud, Greenock, a wonderfully compact, well-coupled horse, but not so big as the three or four horses beaten by him. He was bred by the late Mr. John Ralston, Milmain, Stranraer, and was got by Prince Fortunatus 8136, a very successful breeding horse, which died when two years old, out of a Darnley mare. The second horse was Mr. Peter Crawford's big, powerful-looking horse, Goldfinder 6897, whose sire was Lord Lyneloch 4539, which won at Chicago on one occasion. Goldfinder, as a two-year-old, was first and cup winner at Aberdeen; and as a four-year-old, he was first at the H. & A. S., Stirling, in 1891.

A very handsome, big, heavy horse, Lord Colm Edmund 9280, owned by Mrs. Simpson, St. Colmac, Bute, and got by Prince Gallant 6176, out of the dam of Lord Erskine 1744, was placed third. This horse, as a yearling, carried all before him at Kilmarnock, and was sold by his breeder, Mr. W. S. Park, for £1,300. He was followed on this occasion by the Glasgow premium horse, Sir Morell Mackenzie, and then came in order Mr. Riddell's black horse, Moneycorn, twice winner of the Glasgow premium, and Mr. Alexander Scott's Prince Uryben 9364. These are six grand, big horses, and the class altogether was a specially good one, exhibiting an abundance of strength, weight and quality. The three-year-old class was led by the almost unbeaten horse, Royal Gartly 9844, owned by Mr. Peter Crawford, Eastfield, Dumfries, and bred in the North of Scotland by Mr. Alex. MacG. Mennie, Brawlandknowes, Gartly. This is a horse with faultless hind legs and first-class action. He is shallow in the middle, and not too pleasing in front; but, according to the principles on which horses are judged in Scotland, very difficult to beat in a show-yard. Last year, at the H. & A.'s Show, he was beaten by the MacEachran 9792, and we rather think this the only occasion on which he has been beaten by a horse of his own age. Next to him, at Glasgow, was placed his old opponent, Prince of Brunstane 9077, a real good type of Clydesdale, bred by his owner, Mr. William Park, Brunstane, Portobello. This is a compact, well-ribbed colt, and had he the same action as Royal Gartly, many would prefer him. Third place went to the Glasgow premium horse, Royal Exchange, and then came a splendid big horse, Scottish Cavalier 9850, owned by Mr. James Kilpatrick, Craigie Mains, Kilmarnock, and a solid, big, handsome horse. He was got by Prince of Kyle 7155, so that the second and fourth prize horses in this class were got by the first and second Cawdor Cup winners. A good horse was placed fifth in King of the Roses 9927, owned by the Messrs. R. & J. McAlister, Bute; and the sixth was Rosario 9906, a well-bred horse, owned by Mr. Alexander MacRobbie, Aberdeen, which won first prize at the Royal Northern Show a week earlier. Many promising young colts were not mentioned in this class, some of them, as it seemed to us, quite as good as some of those wearing tickets. Altogether it was a satisfactory exhibition of young Clydesdales. The two-year-olds were a lot of strong colts; and the first, Royal Gallant, owned by Mr. W. S. Park, was got by Prince Gallant 6176. He is a well-colored, round-ribbed, sound-footed, compact horse, with good action. The second and third were got by Mr. Riddell's Gallant Prince. Competition for the Cawdor Cup was not at all exciting. The competitors were Prince of Fortune and Royal Gartly; and the latter won. The four horses whose names are now on the cup are: (1) Prince Alexander 8880, owned by Mr. William Renwick, Meadowfield, Corstorphine; (2) Prince of Kyle 7155, owned by Mr. James Kilpatrick, Craigie Mains, Kilmarnock; (3) Prince of Carruchan 8151, owned by Messrs. P. & W. Crawford, Dumfries; (4) Royal Gartly 9844, owned by Mr. Peter Crawford, Eastfield, Dumfries.

Clydesdale breeders still continue to run on a limited number of strains of blood, and some strong protests against this have recently been made. Reckoning up the number of horses bred, and which won prizes at the recent show, it appears that fifteen of them were got by Prince of Wales 673, six by Macgregor 1487, five by Sir Everard 5353, four by Darnley 222, and three by each of his sons, Castlereagh and Buxom Lad 7533. The following horses were represented by two gets each: Prince Gallant 6176, Prince Fortunatus 8136, Gallant Prince, Lord Erskine 1744, Prince of Albion 6178, Top Gallant 1850, Flashwood 3004, Prince Robert 7135, St. Lawrence 3220, Prince of Kyle 7155, Orlando 8082, and Rosemount 8953. The most notable sire of one prize winner is Mr. George Bean's Mount Royal 8065, the sire of the Cawdor Cup winner, Royal Gartly, and himself one of the short leet for the Glasgow premium. SCOTLAND YET.

The Season in Manitoba.

The winter of '94 and '95 will long be remembered in the West as one of the most pleasant in the memory of the "oldest inhabitant." There was only a couple of weeks of really cold weather throughout the whole winter, and not one bad storm. The snowfall has been very light indeed, so that when spring opened there was little or no moisture in the ground. Seeding began in many places as early as April 1st. Heavy rains in the West would materially improve the crop prospects, and rain will be necessary to ensure the hay crop of the Eastern portion of the Province.

The natural pasture will supply an abundance of food during a portion of the year, although it is often inferior to that which is raised by cultivation. As long as dairymen depend upon grass pastures for their entire summer cattle feed, they will not make the most of their opportunities. Now is the time to prepare for a good supply during the next thirteen months. Should the coming season produce far more fodder than is required, hay can be sold or kept, and silage will not waste to any extent if held over another season.

Horse Breeding from a Western Farmer's Standpoint.

BY "CLAUGHBANE."

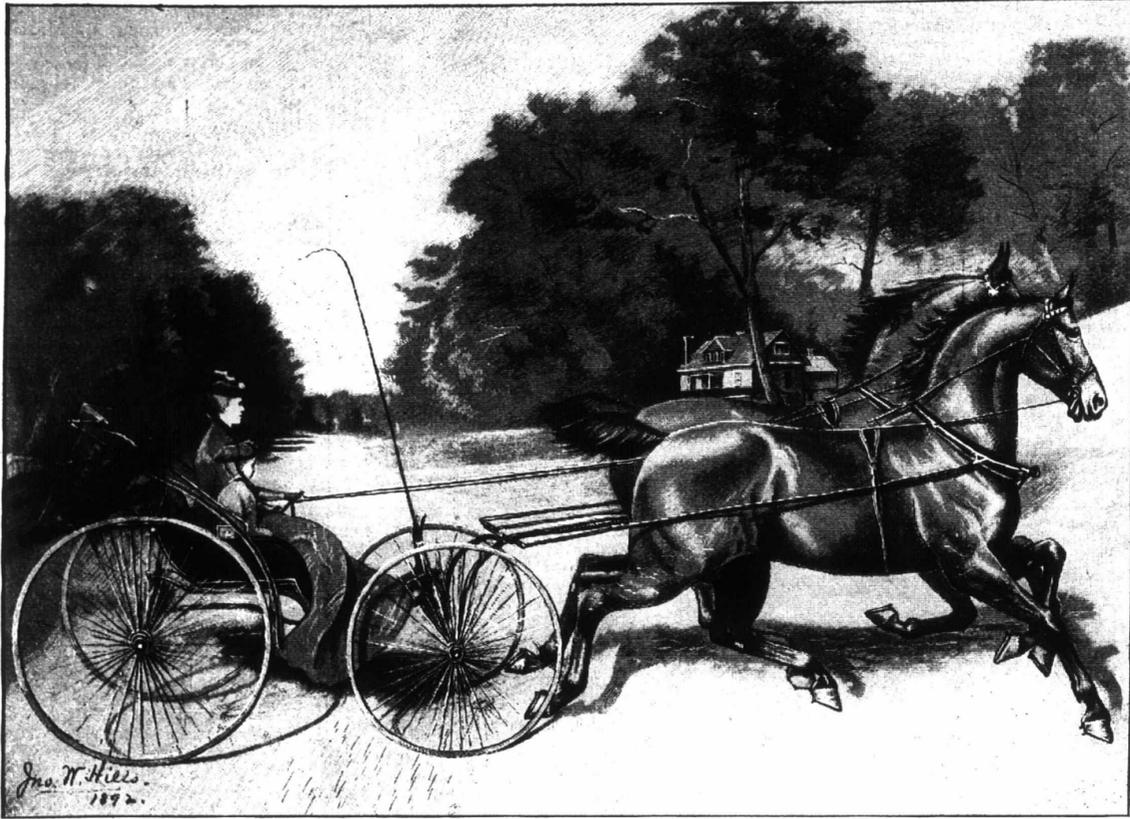
The Hackney, as a sire, is one of the best farmers can use. He is exceedingly handsome, and the high action for which he is noted has become hereditary with him, and while he can go at a good pace, he is not nearly so speedy as the Standard-bred horse, but being very stout and powerfully built, with stout bone, is capable of covering a great distance in a day. Mares with much cart blood in them are not generally suitable for mating with the Hackney. He will be useful for a lighter class of mares, those of trotting blood often being very suitable, as he will give rotundity to the form of their progeny as well as giving them strength and action. The Hackney will also be a good sire to use on really good pony mares, for ponies, if of the Hackney type and having good action, are valuable. One thing that can generally be looked for in the get of the Hackney stallion is that they will pick up their feet prettily, a most important point, and one the Canadian farmer, as a rule, does not give sufficient attention to. Beware, however, of mating him with large, coarse mares; it is all right to breed large mares to him, but they should have plenty of

the horses shown at our Agricultural shows as such are not general purpose horses, but ought to be classed as agricultural light draught, or something of that kind; they have all, more or less, cart blood in them, and would look quite out of place before a buggy. Now, the Coach horse, while not a perfect light driver, is by no means out of place in that capacity, and is quite at home when required to make good time with a good load behind him; he is, moreover, a right down good horse on the plough, being good-tempered and having plenty of weight for the work; and though some may think he is not large enough, the scales will show that he weighs as much as many horses that look heavier, being upstanding and clean legged, giving him this appearance. Then, again, while not a perfect saddle horse, he is not out of place when carrying a man, but will do it well and with ease to himself. In his purity he is, all things considered, the beau-ideal of a general purpose horse. But we have very few mares suitable for mating with him to produce this class of animal, for the small class of mares I have spoken of as suitable for breeding to the Coach horse will not, as a rule, produce horses big enough to come under the head of general purpose horses. Under these circumstances we must rely on the Thoroughbreds to beget our general purpose horses, and this he is most capable of doing when bred to large, cold-blooded mares.

In breeding light horses farmers must use their judgment as to which breed is suitable for each mare. There are some mares that could be profit-

The Future Supply of Horses.

"The fact that during the month of January the number of horses sold upon the Chicago horse market amounted to nearly 10,000 head is sufficient to make the intelligent breeder believe that the bottom has not fallen out of the business yet. Notwithstanding that the above figures represent a larger number of horses than were ever placed upon the Chicago market before during the same length of time, the demand was still equal to the supply and the prices paid for good individuals were fairly satisfactory to the seller. When we stop to think that nearly all of these horses came out of this Western country and then consider the fact that at the outside not more than fifty per cent. of the number of horses are being reared as formerly, it is but reasonable to conclude that the demand within a very short time will be greater than the available supply, and breeders who have had the good sense not to yield to the general panic, but have continued to raise good marketable horses, will ultimately reap their reward by realizing once more good prices for their stock. It is a well-known fact that there are not half the number of one, two, and three-year-olds that there was a few years ago, and this means that when these youngsters come of an age suitable for the market there will not be anywhere near enough of them to supply the demand. True, electricity and bicycles have



A PAIR OF GERMAN COACH WORLD'S FAIR PRIZE WINNERS.

quality. There are numbers of mares on Manitoba farms that, if mated with Hackneys, would produce colts that would bring good money for export.

The Hackney is at present so popular that really good stallions of the breed are too high in price to make them plentiful in Canada. There are not so many mares in Manitoba suitable for mating with the Coach horse as with the Thoroughbred; in fact, in my opinion they are, comparatively speaking, few. The reason is this: the Coach horse is, as he stands to-day, the general purpose horse, but at the same time he is not gifted with too much quality, and what he has not got himself he cannot impart to the progeny of mares that have less. The greater number of farm mares have not sufficient quality to nick well with a Coaching sire. I do not say that all Coach horses are deficient in quality, but as a breed they are, when viewed from a farm-mare standpoint. When a farmer has a clean-legged mare with plenty of quality, he might do much worse than breed her to a Coach horse. There are numbers of smallish boned mares in Manitoba, often rather weedy looking, but with lots of quality; such mares will raise fine colts if bred to a Coach horse; and if the mare is roomy and a good milker and the colt well done by, it will often turn out of such a size that one not knowing would never dream that the mother was undersized. I have said the Coach horse is the general purpose horse, and I maintain that

ably bred to the light horse of any one of the three breeds that have been named; and then, again, there are many others that would not be suitable for mating with more than one, as, for instance, these large mares of more or less draught breeding, which the blood of the Thoroughbred alone can modify and give to the progeny that quality which is required in a valuable light horse.

Do not breed a mare at all if she has any glaring defects in conformation, for she may reproduce these in her progeny, when they will be of little value, the aim being to breed something good, and this can not be expected from an ill-formed mare. Then, again, to raise a good colt, a good sire is required, and good sires require good service fees, and money can scarcely be said to be well invested if paid out on the chance of a poor mare producing a good colt.

Aboveall, do not breed mares with any hereditary unsoundness,—they are worse than useless for the purpose.

The Hackney in Rhyme.

"The Shire may grunt, till he gives you the gripes,
The Clydesdale betimes will play the bag pipes,
The Suffolk can raise you a musical breeze,
The Racer will whistle, the Coacher will wheeze,
The Hunter when pressed will play the trombone,
But the true British Hackney gives no note or tone,
Going rub-a-dub-dub, going tal-a-tai-tai,
Hocks, shoulders, and knees going all pit-a-pat;
Not a step out of measure, complete as a rhyme,
Melodious in tune and all perfect in time,
With his one, two, three, four, as if solving a sum,
He beats the tattoo on his loved kettledrum."

London Horse Breeder.

spoiled the market for street car and light draft horses, but the demand for good draft, carriage, or saddle horses, and the price that can be had for the same is still good. Viewed in a sensible light, the horse interests are not in any worse shape to-day than any other business in the country. A great deal, if not the whole, of the trouble has been caused by the change in the class of horse that the market demands—a fact that many breeders have failed to realize—hence many of them have continued to spend money and time breeding horses, it is true, but a style of horse that is away behind the times, and one when placed in the sale ring beside some handsome and good-gaited individual makes but a sorry appearance and sells for a song.—[Iowa Turf.

Clipping Farm Teams.

As soon as spring opens and seeding operations commence, "dispatch" should be the watchword on every farm. Time can be saved and horses given much more comfort by clipping the teams that have anything like a heavy coat of hair. To a horse that sheds its coat early there is little or no advantage in clipping, but these are the exception and not the rule. Not only can the clipped team be kept constantly going while in the field, but the work of grooming becomes a much lighter task morning and night than with a heavy-coated horse. It is not well to clip the legs from the hocks down, especially if the animal be of one of the draught breeds, or there will be a tendency for them to chap by being exposed to winds and moisture.

THE FARMER'S ADVOCATE & HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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German Coachers in Harness.

The illustration on the opposite page represents a pair of German Coach stallions in harness, exhibited by Mr. A. B. Holbert, of Greeley, Ill., at the World's Columbian Exhibition...

High Priced Horses.

The following table will interest our readers at this time as showing the highest prices ever paid for horses, though, in a few instances, the long figure was about the only claim to reputation possessed by the horse:—

Table with columns: Horse, Price, Horse, Price. Includes entries like Ormonde \$150,000, King Lud \$30,000, Ly. Primrose Colt \$30,000, etc.

Table with columns: Horse, Price, Horse, Price. Includes entries like Arion \$150,000, Patron \$27,500, Mascot \$26,000, etc.

Public Butter Tests of 1894.

[Paper prepared by Mr. Geo. Rice for the Canadian Holstein Friesian Association.]

The World's Fair tests have come and gone, but the battle of the dairy breeds goes merrily on. Most of the great shows of the States and Canada in 1894 had a keenly contested dairy test.

Two modes of testing were practiced the past year: The ordinary show ground test, and what we call "public home test." In the latter tests, the cows have been tested at home at any time the owners may elect previous to the fairs...

Thoughtful and intelligent dairymen know that anything occurring to disturb the cow "in the even tenor of her way" results in a loss in percentage of butter-fat. In a show-ground test there is every cause of disturbance. Hence, we find low reading of butter-fat in such tests.

milk the first day of four per cent., and the second day one cow showed a loss of eight per cent., and the two others a loss of one per cent. in percentage of butter-fat, being that much less than the cows tested at other times at home...

The most that can be said for a show-ground test is that all contestants are at the same disadvantage, and if the public will add one-half per cent., or perhaps one per cent., to the butter-fat reading, they will have a better idea as to the normal richness of the cow's milk when at home.

Probably one of the greatest show-ground tests of the year was that held at Syracuse, N. Y., there being Holsteins, Guernseys, and Jerseys contesting. Six Holsteins in this test were highest, the cow coming seventh being no less a cow than the Guernsey "Purity" that stood highest of that breed at the World's Fair...

In addition, there are several tests won by Holsteins where the records have not been published. The test at Anamosa, Iowa, Shorthorns, Jerseys, Ayrshires, and Holsteins competing, was won by the Holstein cow, Ida Denver, owned by E. T. Bedwell...

HIGHEST SHOW GROUND RECORD OF 1894.

Table with columns: Breed, Name of Cow, Name of Owner, Where Test Held, Amt. 80% butter 2 days. Includes entries like Holstein Intje Von Holigen, D. F. Wilbur & Smiths & Powell, Syracuse, 4.059.

HIGHEST PUBLIC HOME RECORDS.

Table with columns: Breed, Name of Cow, Name of Owner, Where Test Held, Amt. 80% butter 2 days. Includes entries like Holstein Johanna 5th, Gillett & Son, Wisconsin, 6.25.

Only two States did the testing at home, but what they lack for number they make up in quality. To the Holstein cow Johanna 5th belongs the honor of "breaking the record" at that sort of race.

To sum up, then, we find the Holsteins have made the highest records in either "show-ground" or "public home test;" they have won all tests for most milk, "solids other than fat," most "total solids," and nearly all the prizes for "butter-fat," which entitled the Holsteins to be considered the champion all-round cow—the cow for milk, the cow for cheese, the cow for butter.

I feel this paper incomplete as showing the grand work done by Holsteins the past year if I neglect to mention the large records made by the Holstein cows at the Michigan Agricultural College, as follows:—

Table with columns: Name of Cow, Milk, Butter. Includes entries like Rosa Bonheur 5th 11227, H. F. H. B., in 190 days, 13,693 lbs. milk, 4364 lbs. butter.

The Horse Show.

Advices from Toronto are to the effect that the entries for the Canadian Horse Show, in the New Drill Shed, on April 18, 19 and 20, number some 500, the harness and saddle classes naturally being predominant. There will also be a grand display in the breeding classes, Secretary Wade feeling warranted in saying that the show altogether will far eclipse anything of the kind ever before held in Toronto.

Chatty Stock Letter from the States.

(FROM OUR CHICAGO CORRESPONDENT.)

Extreme top prices now, compared with one and two years ago:—

CATTLE.	1895.	1894.	1893.
1500 lbs. up	\$6 60	\$4 50	\$6 05
1350 @ 1500	6 30	4 40	6 00
1200 @ 1350	6 20	4 35	5 45
1050 @ 1200	6 15	3 90	5 00
900 @ 1050	5 80	3 70	4 85
Stillers	6 00		
Feeders	4 70	3 65	4 60
Fat cows	5 75	3 40	4 30
Canners	2 00	2 40	2 55
Bulls	5 50	3 35	4 20
Calves	5 50	5 40	7 00
Texas steers	5 75	3 80	5 05
Texas C. & B.	3 65	2 60	3 00
HOGS.			
Mixed	\$5 25	\$4 90	\$7 20
Heavy	5 42	4 95	7 37
Light	5 00	4 90	7 05
Pigs	4 75	4 80	6 90
SHEEP.			
Natives	\$5 25	\$5 30	\$5 60
Western	4 95	5 25	5 80
Texas	4 85	4 50	5 25
Mexican	4 85	5 00	5 50
Lambs	6 00	5 75	6 70
May Corn	46	38	41
Wheat	55	64	83
Pork	12 07	12 42	16 65
Lard	6 95	7 37	10 10

The matter of the shortage in marketable live stock is really growing quite serious. Even in the case of hogs dealers are coming to the conclusion that the available supplies were greatly over-estimated. Thirty days ago the notion was quite general that hogs would be very plentiful, but now, with receipts at Chicago only about 100,000 per week, and other places in proportion, the situation looks different.

Stocks of hog products are fairly large, but exports are liberal, and hog meat is being used to take the place of beef to a large extent.

There have been slaughtered at the three important Western cattle cities, since January 1st, about 9 1/2 per cent. (over 80,000) less cattle than for same period last year. The falling off in the receipts was greater than that, about 14 per cent., but the slaughtering did not fall off quite so much, because shipments were less.

A lot of 737-lb. heifers sold at \$4.70; some 1,430-lb. Hereford steers, \$6.25.

The Standard Cattle Co. marketed 38 head of 1,342-lb. cattle at \$5.60, and 38 head, 1,492 lbs., at \$5.85.

Ten carloads of 1,307-lb. Nevada hay-fed Hereford and Shorthorn cattle sold in Omaha at \$5.30.

Distillery cattle, 883 to 1,263 lbs., sold at \$5.35 to \$6.00, with 1,450-lb. slop-fed bulls at \$4.40 to \$4.45.

Reported that Hathaway, the Boston exporter, has contracted 2,000 Canadian distillery cattle for May and June.

Hay-fed Montana feeding cattle, 976 to 1,162 lbs., \$3.80 to \$4.20.

R. W. Smith was here from Oklahoma City, Ok. He had in 21 head of good 1,450-lb. steers, which sold for \$6.00, and 21, averaging 1,153 lbs., at \$5.50.

Hamilton & Rice, of Mexico, Mo., sold a lot of 205 shorn sheep, averaging 125 lbs., at \$4.70. A. B. Tidwell, of the same place, sold a load of shorn sheep, averaging 130 lbs., at \$4.65.

A bunch of 160 clipped Western sheep, averaging 85 lbs., sold at \$4.30.

Choice 116-lb. sheep sold to an exporter at \$5 to \$5.15.

Michigan lambs, 93 to 105 lbs., sold at \$5.80 to \$5.90.

A lot of 172 Montana feeding sheep, averaging 90 lbs., sold at \$3.50.

While plug horses are unconscionably low, the really good grades are selling very well, as shown by the following list of top prices at a recent Dexter Park sale:

Pair of bay carriage horses, A. Poole, Chicago, \$2,000; brown cob gelding, H. W. Marshall, La Fayette, Ind., \$130; brown Hackney team, F. C. Austin, Chicago, \$2,200; bay road horse, Mr. Laffin, Chicago, \$150; bay coach team, Arnheim Live Stock Co., Pittsburg, Pa., \$775; brown cob team, John Dupee, Chicago, \$1,000; gray driver, E. A. Hill, Chicago, \$255; bay road horse, record 2.26, John Dupee, Chicago, \$1,200; bay driver, D. T. Packer, Saginaw, Mich., \$500; brown roadster, Hermann, the magician, \$510; chestnut driver, Hermann, the magician, \$475; brown carriage team, Hermann, the magician, \$1,000; brown cob team, H. Koellig, Mexico City, Mexico, \$650.

Best meal-fed Texas cattle sold at \$5.75, which was the highest in over two years.

John P. Gillett's fancy Shorthorns, 1,588 lbs., sold at \$6.60, the top of the season.

The Texas season is about a month late. In Southern Texas the cattle are doing well, and good grass beeves will be ready for market in five or six weeks. Cattlemen are feeling good, and instances where ranchmen or dealers who bought cattle last fall have taken, or could take, \$25,000 to \$50,000 profit, are numerous enough to remind one of the old boom times.

Description of Ayrshire Points.

(Paper read by Wm. Stewart, Jr., Menie, Ont., before the Dominion Ayrshire Breeders' Association.)

In judging cattle of any description, reference must always be had to breed characteristics. Thus, while all cattle are judged by certain un-deviating standards, as respects feeding and assimilation, beef cattle must be judged from a beef-making standard, and dairy cattle from their milk-producing powers, it is more than probable that, weight for weight, the Ayrshire cow, being of medium size, will produce more milk than any other breed. In selection, no surer test can be had than a careful study of her points.

Usefulness.—The usefulness of the dairy cow is in her udder, and toward the udder, its shape and its yield, all the capabilities of the cow should be directed. We must first view it as a reservoir for the milk. As such, it must be large and capacious, with broad foundation, extending well behind and forward, with distinct detachments, broad and square, viewed from behind the sole broad and level, the lobes even sized, the teats evenly distributed, the whole udder firmly attached, with skin loose and elastic. Such a form gives great space for the secreted milk and for the lodgment of the glands while allowing the changes from an empty to a full vessel. The glands should be free from lumps of fat and muscle, well set up in the body when the cow is dry, and loosely covered with a soft and elastic skin, without trace of flabbiness. Such a covering allows for extension when the animal is in milk, while the glands are kept in proximity with blood vessels that supply them; the necessities of the lacteal glands are larger supplies of blood from which milk can be secreted, and this harmonizes with the demands of the udder, as a storehouse; for broad attachments mean broad belly or abundance of space for the digestive organs, from which all nutriment must originate. The blood is furnished to the glands of the udder by large and numerous arteries, as secretion is dependent on the freedom of supply of blood to the part and a copious flow. We find branches coming from different arterial trunks and freely anastomosing with each other, although these arteries are internal and out of sight. Yet, fortunately, the veins which carry the blood from the udder pass along the surface and, from their size and other characteristics, indicate the quantity of blood, not only which they carry away, but which must have passed through the glands from the arteries. These return veins pass both backward and forward; those passing forward are known as the milk veins, and the size of these superficial veins, on either side of the belly, and the size of the orifices into which they disappear are excellent points to determine the milking probability of the cow; still better is it to find, in addition, veins in the perineum which also return from the udder prominent and circuitous.

Escutcheon.—The escutcheon is now generally conceded to be a good indication of milk in the cow; this mark is sufficiently well known not to require description in detail. I think a broad escutcheon is fully as good a sign as a long one, that quantity or quality meaning more than shape, yet I would not discard the shape entirely. One error must, however, be avoided: it may be well to compare the size of escutcheon of cows of one breed, but never to compare the size of escutcheon of cows of different breeds. I think this point means more relative to size in the Ayrshire than in the Holstein, and am certain that, while it may be safe to follow it in the Ayrshire, in the majority of instances it would be equally unsafe to adopt it in selecting a Shorthorn, for the obvious reason that that breed has been bred for generations for other purposes than those of the dairy. The udder and its dependencies, the milk veins and the escutcheon, may be considered the foundation of the Ayrshire cow. These influence profit, and also the shape of the body and the form of the animal. The milk vessel is placed in the public region of the cow, and is protected on either side by the hind limbs. The breadth of its attachment secures breadth of body, and the weight requires also a depth of quarter and of flanks. The breadth below requires breadth of hip above and length of loin here appears related to length of pelvis.

The physical function of milk-producing demands a great and continuous flow of blood, so to speak; this flow is dependent on the supply of food and the facilities of digestion. To gain this a large body is required, in order to hold the suitable digestive organs; to gain further room for these we desire to see arched ribs, depth, yet no heaviness of flank, and breadth of hips, which we see was also required for the broad udder; to sustain this body, a strong, firm back is needed to gain the most of the blood after it has absorbed the chyle from the digestive organs. Reason shows that it should find its way freely and speedily through the system on its labors of supply and removal, cleanse itself in the lungs and again pass on to its duties; all this points to a healthy heart not cramped, and lungs of sufficient capacity, for the yield of milk drains much nutriment from the system, and the constitution must needs have the vigor given by a healthy and active heart and lungs. In this way the chest is correlated with the udder. The reproductive functions require back bones of good size, and a broad pelvis is desirable, as underlying within are the generative organs; defects here are to be shunned. Thus the necessities of the body of a good milking cow require the wedge shape, and this not only from the flanks, but also when viewed from above.

Encouraging a Wool Exhibit.

At the last meeting of the Dominion Sheep Breeders' Association, in order to encourage a display of fleece wool at the next Toronto Industrial Exhibition, Ald. John Hallam generously donated \$75 (to which a like amount has been added) towards the premium list, which we are now advised has been arranged as follows:—

FLEECE WOOL—5 FLEECES, WASHED OR UNWASHED.	Teg.		Ewe.	
	1st.	2nd.	1st.	2nd.
Coarse combing wools, Cotswold type	\$8 00	\$5 00	\$8 00	\$5 00
Medium combing wool, Lincoln or Leicester	8 00	5 00	8 00	5 00
Medium clothing, Shrop., Dorset, or Oxford types	8 00	5 00	8 00	5 00
Super clothing, Southdown type	8 00	5 00	8 00	5 00
Fine clothing, Merino or Grades	8 00	5 00	8 00	5 00

CLOTHING FLEECE AND CROSSES—20 FLEECES.

White from Grade sheep	Teg.			Ewe.		
	1st.	2nd.	3rd.	1st.	2nd.	3rd.
	\$10 00	\$5 00	\$3 00			

The following conditions are attached:—“Teg to be first clip, from animals of either sex. Ewe to be from ewes, and to be the second or subsequent clip. Prizes for fleece wools to be competed for by breeders or farmers only. Exhibitor to certify that he is the breeder of the sheep from which the wool was shorn; that they have since been in his possession, and giving details of breeding. Judges to specially note evenness of growth, uniformity, and quality of staple.”

We presume it is to be understood from the above that exhibits of washed and unwashed wool will be judged together, which, it strikes us, should be avoided. We would also say that, in the judging, length of staple or weight of fleece should be considered. If we can get quality and quantity, it surely is desirable, at least from the breeders' or wool producers' standpoint. We certainly ought to get as far in that direction as practicable. Cotswold breeders will take exception to the word “coarse” as specially applied to the wool from their favorites, and various other breed groupings might be suggested as to points, upon which there will naturally be differences of opinion to some extent, based upon individual characteristics of sheep. Apart from this, it seems a very well-arranged list, and ought to bring out an attractive display of wool. “Merino” might have been omitted without serious loss.

Sheep Industry in Manitoba.

(Read by Donald Fraser, “Lake Louise,” Emerson, before the Live Stock Breeders' Convention.)

I have had an experience of fifteen years with sheep-raising in Scotland, and was engaged twenty-six years in Ontario in the same business, where I was my own purchaser, manager, shepherd, and showman, and have had an additional experience of nearly fourteen years in Manitoba. I think Manitoba is the best country for sheep I know of. They are always healthy and always in good condition, having no particular disease, nor any enemies, unless a stray wolf, and they are not bad in our section.

In 1881 we brought from Ontario to this country, Cotswold, Leicester, and Southdown sheep, and soon afterwards we added Shropshire to the list. They all run together, summer and winter, except in the breeding season, when each class is separated by themselves with their own kinds of rams; and I may say here that all these breeds have done equally well.

We feed the sheep at this season (winter) on the clean frozen ground, every morning and evening, with our beautiful fine prairie hay, and a sheaf of oats two or three times a week—say a sheaf for every six or seven sheep, leaving the sheaves tied—and a basket of turnips occasionally. We leave the sheep closed in their yard until the feed is ready, so as not to get chaff or any dirt on the back of the sheep, as it is extremely detrimental to the wool.

We have a nice dry house for the sheep to go in and out at will night and day, the door always open unless the weather is very cold and stormy. I would rather have the sheep a little too cold than too warm. They have access to plenty of water and salt, summer and winter. I find it a good way to shear all the shearings, dry sheep and wedders just as soon as the weather is sufficiently warm, before the wool gets tagged and dirty with the sheep feeding on the grass; it is much better for the sheep, and more wool will be secured; shear the ewes two weeks later. I think it is better to have the lambs come in the latter part of April—the lambs require less attention and the ewes thrive better by being on the grass.

The ewes carry their young about twenty-one weeks. When I find a young lamb chilled through and through before he is able to get up and suck, I take him to the house at once, wrap him up in some sort of blanket, and immediately place him in the oven and leave him there until he gets thoroughly warmed, and in a short time he will be able to suck his mother. Many a valuable lamb I restored to life in this way when some men would throw them away for dead.

The lambs should be docked, and all the ram lambs should be castrated when about two or three weeks old—they will sell better to the butcher in the fall than if they were rams, or if the price is not satisfactory, they can be wintered in the flock without any trouble.

When the ewes are shorn the ticks will go on the lambs. To exterminate these obnoxious insects, solution of tobacco juice and soft soap, and a little turpentine, mixed well together, will kill the ticks and cleanse the skin. To test the strength of the solution, put a tick on the palm of the hand, drop a

few drops of the solution on it, and if it kills the tick at once it is too strong; if the tick walks round your hand, it is too weak; so it can be made right by adding a little water to it, or a little more tobacco, as the case may be.

There is another pest more annoying to the sheep than the common tick. I refer to a small red louse, similar to the hen louse,—so small that you can hardly see it with the naked eye, and very nearly the color of the skin. They are generally found on sheep in poor condition. When these lice get on the sheep it makes them very uncomfortable; they are constantly biting at their sides and pulling some wool out. Remedy:—Take some Scotch snuff, put it in an old pepper dish, open the wool about the shoulders and neck and sides, dust it well in with the snuff, and sure death will result to the pest.

I find that the use of Shropshire or Southdown rams on Cotswold or Leicester ewes makes a profitable cross, producing good large sheep, well mixed mutton, and plenty of wool. We had a few wedders of the above cross at the Winnipeg Show; I think in 1892. One of the wedders dressed 166 pounds of mutton. All rams should be separated from the ewes about the last of August. Sheep always do better in dry seasons on short pasture, with plenty of water. The lambs should be weaned about the beginning of September, so as to give the ewes a chance to gain up before the cold weather comes. The ewes should be milked, say about the second day after the lambs are taken away; this should be done twice, so as to keep their udders right for another crop of lambs. Turn the ewes out on the summer-fallow to eat up all the green weeds that are there, which they are fond of, and which are beneficial to them. Their droppings and the packing of the ground are beneficial to the soil.

Now, just a few words about the wool, and I am through. Professor Shaw, in judging the sheep at the show in Winnipeg in 1893, said that he found the wool on the sheep in Manitoba wherever he went so very dry, showing a great lack of yolk. He said he could not account for it; nor do I know the exact reason either, unless it was on account of the very wet weather we had previous to the show that year; for much rain is always against sheep and wool.

But I know that it is not a general thing in Manitoba, for I find, from my own experience, that it is just the reverse. For example, when I was shearing our sheep last spring, I never saw the yolk up in the wool better in any country, my hands becoming very greasy before I would be at work half an hour.

FARM.

Narrow Tires Not the Remedy.

SIR,—I notice in your valuable paper an article by Mr. G. D. Farmer on the road question, advocating as a remedy for bad roads broad tires. Any system before being established should be tested by experiment and general facts. For example: I want to catch a train. I have to drive eight miles; the road is about two rods wide, ditched on each side; the night is dark and rainy; the road is of blue clay loam and gravel, constructed on the general statute labor system. I have two lumber waggons, one with two-inch tires, the other three and a-half; each wagon is of the same weight; which will I take to catch the train? I might also state that the mud was from three to six inches deep, well mixed up. What would be the difference in draft for the team between the different width of tires, mathematically demonstrated and proven by actual facts? Most farmers would choose the two-inch-tire wagon.

Mr. Farmer says many things that are very true, but there are very few intelligent men but can realize the shameful state of the country roads summer and winter. Even the macadamized roads, throughout Ontario Province, are not according to law, nor are they constructed or kept according to the terms of their charters. Any intelligent farmer knows that it is not the width of tires that builds roads; first build roads, and according to the traffic and weight of loads use a common sense tire, and those who will not comply without compulsion, let them be compelled to do so according to statutory law, and not by-law.

The present system of road construction, by statute labor and pathmaster, borrowed from feudalism, might have done in the past, but the intelligence of the present day requires different administration. There will be no improvement till the Provincial Government appoints inspectors to introduce a specified system for road construction, to be carried out by councils in each municipality, all delinquents to be reported to the County Judge, and a penalty fixed by statute for roads that are not according to the required standard.

It is not my desire to suggest tolls to raise revenue for speculators or usurers. There are some farmers who can play sharp, but they are the exception and not the rule. The financial question of road construction might be left to each municipality, and the road improvements might be confined to those that are most travelled; and each municipality would be the best judge how to raise a revenue to meet the required expenditure.

Every intelligent man in the Dominion with practical common sense knows that "fads" do not build roads; sometimes Government grants do. Let wisdom govern; do not be caught by untried systems; prove them first by general rules and facts, and you will find the proper width of the tire for a cart wheel.

JOSEPH WHITE, Carleton Co.

Well Arranged Barn and Stables.

In the Township of North Dorchester, on the farm of Mr. Thomas Irwin, about eight miles east of the City of London, Ont., is situated one of the most economical and conveniently arranged set of farm buildings that we have yet seen. The accompanying illustrations are almost self-explanatory. The buildings are made over from an old barn, with a new additional lean-to (calf stable, etc.) attached. Fig. 1 shows a cross-section or end view. The dotted line running up through the horse stable represents the position of the silo beyond the stable, as shown in Fig. 2. The walls and floors are of cement concrete, and are solid and firm. It will be seen that the barn has an end drive, which makes it very convenient for feeding and bedding stock. The mow over horse stable is yearly filled with hay. The space over the east portion of cow stable and barn floor is never filled with grain, but is left to receive straw of the first threshing. When necessary the machine is moved back and the emptied mows are filled up again with straw. Frequently a grain stack is built outdoors, the straw of which goes into the last mow when threshed. The position of the silo, as shown in Fig. 2, the hay and straw in the different mows, also root-house beneath the barn floor readily show that feeding the stock is a very short job. Mr. Irwin has a windmill erected to supply water in the stable this coming season. He also intends constructing a granary on the barn floor next the silo, when everything that the stock requires will be right at hand.

Fig. 1 represents the east end of the barn. The west end of the barn floor is almost level with the ground, the east end very little more than two feet above the yard level, so that teams can pass out the front door with ease. The dotted line running across the barn floor, in Fig. 2, shows the position of the west end wall of root-house beneath. The small lines, in what seems the sixth stall of the horse stable, represent a cleated bridge from the stable to the barn through a door represented by Fig. 5, which slides up and down by means of weights on either side just heavy enough to balance it.

In front of each horse and cow is a little light door, which slides up and down between side grooves. To it a strap is attached having slits which fasten over a smooth hook to hold it up or closed. When this strap is unhooked it allows the door to fall, leaving an opening through which the feed is passed.

The cattle mangers are about twenty inches wide from back to front, having a front board nine inches high. Above the manger is a rack of three staves which holds straw or hay from falling into the manger, but through which ensilage, etc., will readily fall. These staves fit into holes in the front of manger and not into a cleat, which would harbor grain, ensilage, etc., when thrown into the manger. The cows are tied with chains sliding on iron bars, allowing their heads all the freedom and comfort necessary. The calves are all fastened by means of stanchions, which Mr. Irwin has found an excellent arrangement to teach them to stand straight. Behind each row of cattle is a cement gutter, about 14 inches wide and seven inches deep, to catch and hold all the manure—liquid and solid.

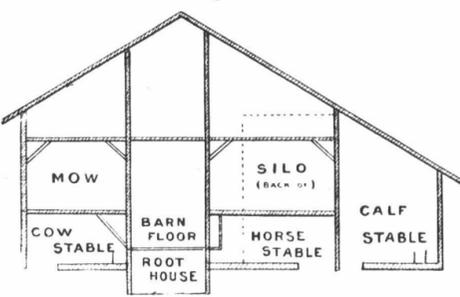


Fig. 1. End view.

The horse mangers are divisions of a wooden trough running the whole length of the stable; it is about nine or ten inches deep and twenty inches wide. The dotted lines across the left end of the manger represent a hay box, which runs up to the ceiling. It is divided from the rest of the manger simply by three strips, represented by the three dots. The centre one is flat and moveable, so that the spaces through which the hay is drawn by the horses can be made wide or narrow at will by turning the flat bar half around.

Mr. Irwin considers he has ventilation down fine, at the same time very simply arranged. The root-house has openings up through the partitions which divide the stables from the barn floor. The cattle and horse stables are ventilated by a diamond-shaped opening, three by four inches, in front of each animal (except the calves), close up to the ceiling, which allows the heated air to pass out of the stables into the barn. A circulation is created by leaving every stable door one inch up from the bottom, which can be closed if desired by a forkful of manure.

The barn is roofed with Pedlar metal roofing, which Mr. Irwin considers a great improvement on wooden shingles.

To the east of the barn, adjoining the calf stable, is a hen house and hog pen (divided by partition) 12 by 45 feet. The hen house gets heat from the calf

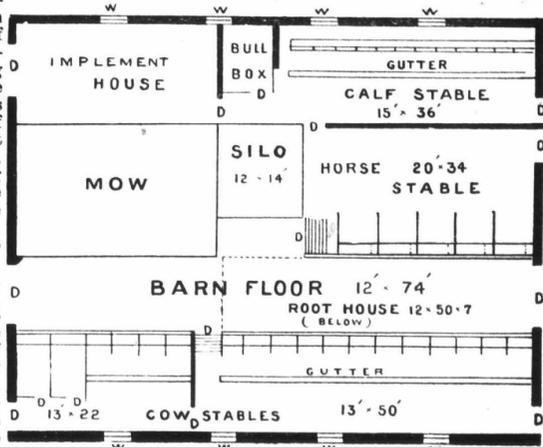


Fig. 2. Ground floor.

pen, which has the effect of producing good quantities of winter eggs. The hog pen has a novel feature worthy of mention. It is arranged with a double deck or up-stairs, about three and a-half feet above, to which the pigs retire on a cleated bridge after meals. This is supplied with plenty of clean straw, which is always kept dry by the pigs when not allowed too much room. We liked the plan well, as the under floor of cement can be cleaned in a very few moments each day, and little or much straw need be used, according to one's desire.

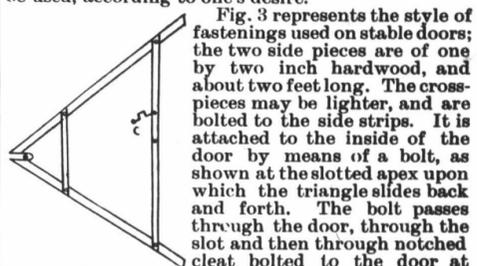


Fig. 3.

Fig. 3 represents the style of fastenings used on stable doors; the two side pieces are of one by two inch hardwood, and about two feet long. The cross-pieces may be lighter, and are bolted to the side strips. It is attached to the inside of the door by means of a bolt, as shown at the slotted apex upon which the triangle slides back and forth. The bolt passes through the door, through the slot and then through notched cleat bolted to the door at either end, against which the cross-piece of triangle rests when the door is open. The little crank, "C," shown in Fig. 3, passes out through the door, where the handle can be given a swing which moves the triangle one way to allow the door to open or the reverse to hold it shut, when the ends of the side pieces of the fastening pass the edge of the door inside the partition. When the door is closed the long cross-piece of the triangle rests against a block or cleat fastened to the door. Through a slight inaccuracy on the part of the artist the short cross-piece on the triangle is shown about three times as far from the slot as it should be. The advantages of such a fastening are that it holds the door in two places, about two feet apart, and that it is convenient, strong, and home-made.

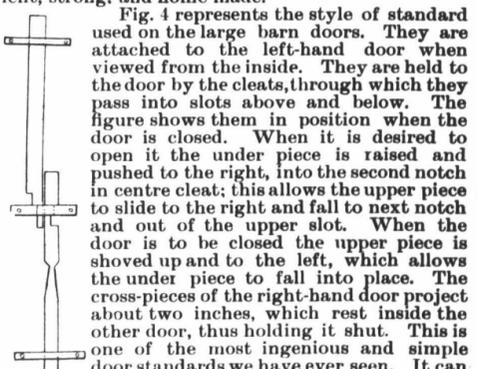


Fig. 4.

Fig. 4 represents the style of standard used on the large barn doors. They are attached to the left-hand door when viewed from the inside. They are held to the door by the cleats, through which they pass into slots above and below. The figure shows them in position when the door is closed. When it is desired to open it the under piece is raised and pushed to the right, into the second notch in centre cleat; this allows the upper piece to slide to the right and fall to next notch and out of the upper slot. When the door is to be closed the upper piece is shoved up and to the left, which allows the under piece to fall into place. The cross-pieces of the right-hand door project about two inches, which rest inside the other door, thus holding it shut. This is one of the most ingenious and simple door standards we have ever seen. It can be manipulated as well in the darkest night as in the light of day, which every man that ever worked about a barn can see to be a great advantage over the ordinary old-fashioned standard.

The Horse Your Friend.

This being so, be sure to keep the harness soft and clean, particularly inside of the collar and saddle, as the perspiration, if allowed to dry in, will cause irritation and produce gall. The collar should fit closely, with sufficient space at the bottom to admit your hand; a collar too small obstructs the breathing, while one too large will cramp and draw the shoulders into an unnatural position, thus obstructing the circulation. Never allow your horse to stand on hot, fermenting manure, as this will soften the hoof and bring on diseases of the feet; nor permit the old litter to lie under the manger, as the gasses will taint his food and irritate his lungs and eyes.

Popular Geology—No. 10.

BY J. HOYES PANTON, M. A., F. G. S.

My last communication ended by referring to the eighth system (Permian) in the geological records. As a blank occurs in the records represented in Ontario from the seventh system (Devonian) to the fifteenth (Pleistocene), I shall briefly notice the missing systems, and refer more particularly to those represented in the Province of Ontario.

The Triassic system (No. 9) is interesting for reptile tracks that have been discovered among its deposits, and also for salt beds which occur in it in England.

The Jurassic system (No. 10) is marked by the remains of enormous fossil reptiles which it contains. So numerous are they that it has been styled the "Age of Reptiles." The Rocky Mountains began to rise out of the sea towards the close of this period.

The Cretaceous system (No. 11) is largely represented in the Northwest. The extensive coal deposits of that district belong to this system. This coal is of a much later date than that of the true Carboniferous (No. 7) system. With the Cretaceous closes the Third Age (Mesozoic) in geology.

The Eocene system (No. 12) is marked by the appearance of several mountain chains towards its close, viz., Alps, Pyrenees, Carpathian, and Himalaya.

The Miocene system (No. 13) indicates the presence of some large mammalian forms, such as the Mastodon.

The Pliocene system (No. 14) closes the fourth age (Cainozoic) in geology. During this the climate was getting much colder than it had been before, and changes occurred that modified at a later date the deposits of North America.

In the Rocky Mountains there was a marvellous outbreak of volcanic energy; the slumbering fires of those days are partially represented in the innumerable boiling springs and geysers of Yellowstone Park, in the north-west corner of Wyoming.

The Pleistocene system (No. 15) introduces to our notice the "Ice Age," when Ontario received an additional deposit, after having been at a geological standstill since the close of the sixth system (Devonian). The deposits of the Pleistocene occur as beds of clay, sand, gravel and loose boulders, well represented in all parts of Ontario. Frequently it represents three distinct layers:

1. Unstratified clays, with angular fragments of stone more or less polished and striated. These beds form the so-called boulder clay or till, resting on rock, which is smoothed and scratched.

2. Stratified sands, gravels and clays, also with boulders.

3. Sands and gravels also stratified, but the stones in them are more rounded and water-worn than in the preceding.

It is considered that, when the boulder clay was formed, the northern part of America was higher than now and the climate Arctic, so that the mountain tops became the starting points of glaciers (rivers of ice). Then followed a time of subsidence, which supplied conditions favorable for floating ice and glaciers. After this re-elevation began and the continent assumed something of its present features. The glacial deposits have always been a subject of much interest, for during the period in which they were formed enormous quantities of rock material were ground up and mixed with soil formed previous to the "Ice Age." In countries where the mountains are high above the level of the sea, a line of perpetual snow is formed, and ice keeps accumulating during the year. In time the mass becomes so great that it begins to descend. If the slope is steep the descent is rapid, and an *avalanche* results. But if the descent is gradual the body of ice moves slowly towards the lower country, and forms a *glacier*, which may be miles long and hundreds of feet thick. In the course of its journey, fragments of rock are constantly falling upon it, and many became embedded in it, and thus a glacier becomes a great agent in grinding up rock.

If the glacier reaches the sea before it melts, a portion of it breaks off and moves away as an *iceberg*. This will carry away all the rock material in it and will deposit it, where it finally melts.

This occurs yearly along the coasts of Labrador and Newfoundland, where so many *bergs* stand at certain seasons. The question naturally arises now, is it possible that such conditions have ever been in Ontario? The following facts seem to indicate that such has been the case:

1. Boulders are found all over the Province that resemble rocks north of this and not the stones of quarries near by.

2. These boulders are not found much south of 30° north latitude; that is a little south of Lake Erie.

3. In many parts of Ontario, where a rock surface is exposed, the rock is smoothed and covered by peculiar scratches that have a more or less northerly direction, and indicate the direction from which the ice came.

4. Our clay beds lie to the south, north are areas of gravel, and still farther north extensive areas of boulders.

No better explanation to account for this state of affairs can be given than the presence of a glacial period in Ontario—a time when the northern part of our continent was more elevated, and became the starting point of glaciers that made their way southward until regions were reached where they melted, leaving the boulders by our wayside as silent monuments of the past. In regard to the duration of the "Ice Age," there is great diversity

of opinion. No doubt it lasted thousands of years. During this time much rock would be ground up and form a contribution to soil.

At the close of this wonderful period, it is supposed that all our fresh water lakes were united and formed a vast body of water which covered the entire Province. This would aid in mixing up the soil that had been formed before the glaciers existed, and that which had been prepared during that period. During this time the waters of this great lake found an exit by the Mississippi River. In time the waters began to subside, and Queenston Heights formed a shore line. The Niagara River existed before the glacial period; part of its course extended from the present Whirlpool to St. Davids. This became filled up with glacial clays. When the river began to flow again, instead of keeping its old bed, it turned from the Whirlpool to Lewiston, which became the starting point of the "Falls." As the lake diminished the falls increased and receded gradually until they reached the place we find them to-day. It is now considered that this has taken 10-15,000 years. It is doubtful at what period the waters found an outlet into the Atlantic Ocean by the River St. Lawrence. But shortly after this took place, the physical features of Ontario began to assume their present outline, and the Modern system (No. 16) appeared.

From a study of geology we learn that the soil of Ontario has been obtained from the decomposition of rock during the vast period of time extending from the Sixth to the Fifteenth system of the geological records, the grinding action of ice, both as glaciers and icebergs, during the Pleistocene period (Ice Age), and what has resulted from changes since then, together with the remains of plants and animals that have been added to it from time to time.

The Merits of Lucerne.

BY W. A. M'GEACHY, KENT CO., ONT.

Lucerne (or Alfalfa) is a forage plant that is rapidly gaining favor with farmers and dairymen, especially those who have poor land of light, sandy nature, for, although it does well on any soil if well drained, sand seems to be its natural home, and on such its roots have been known to penetrate to a depth of from fifteen to twenty feet. A few years ago, upon the high recommendation of a neighboring dairyman, we purchased enough Lucerne to seed down one of our fields, and, I must say, we are more than satisfied with results. Unlike Red clover, the seed is rather large to be sown on fall wheat, but does well on any spring-sown grain. Ours was sown broadcast on oats at the rate of fifteen pounds per acre, and then lightly harrowed. If two or three pounds of Red or Alsike clover is added it both thickens and improves the first crop. If the Lucerne does not appear very heavy on the start, don't plough it up, as the older it becomes the thicker it grows, and in a short time it will run the other clover out, and there is not a weed but what will follow the clover sooner or later. As pasture it is excellent, affording abundant herbage during the driest of seasons, as the tests of the past two years have proved. We have had all kinds of stock pastured on it, and they all relish it, thrive and grow fat. Our calves came right through fly-time on it last year, and came into the stable in the fall in grand order. The only points to watch in pasturing is to see that the dew is dried off and that the stock are well fed before turning them on the first time. In sections where soiling is practiced it will be found invaluable, coming in as it does so far in advance of peas and oats or the common clovers. Dairymen in these parts begin cutting it for this purpose about the first of June. We would highly recommend it to those wishing a good early soiling crop. When cut for hay it should be mown when out in full blossom, which is generally about a week in advance of Red clover. Care must be taken to see that it is thoroughly cured before mowing away to prevent heating. At the same time it must not be allowed to become too dry, as the leaves, which are the most nutritious part, become brittle and drop off. But if bunched after lying in the sun several hours, and then allowed to stand a few days, it makes splendid hay which, though rather coarse the first few cuttings, is relished by all stock. To test the feeding qualities of Lucerne for horses, a neighboring farmer has fed his nothing else during the past winter, and they are coming out this spring in grand condition. He has placed good timothy and Lucerne before them, and he says they prefer the Lucerne every time. We have cut ours three times in one season, and then pastured it, as it is hard to get favorable weather for curing it in the fall. Last year, after taking off one crop of hay, we kept the next for seed. We had it threshed by an ordinary clover mill, and from three acres we threshed thirteen bushels of first-class seed, which sold for from five to six dollars per bushel. A crop that will turn off two tons of hay and twenty-five dollars' worth of seed per acre per annum is one that, we think, should commend itself to every farmer's most earnest consideration these hard times.

Last, but not least, are its fertilizing qualities. When found necessary to plough it up, the dense mass of roots greatly increase the fertility of the soil. Those who have ever tried ploughing an asparagus bed will have some idea of what ploughing Lucerne is like; but all that is necessary is plenty of horse power and a good sharp plow. In conclusion, we would advise every farmer to give Lucerne a trial, and it will be as well with everyone as it does with ourselves, and neighbors, they certainly never would be without it.

Have Silos Been a Success?

In our list of inquiries sent out to seed grain correspondents we asked, "Have silos been used in your district, and with what success? Of what are the most satisfactory ones constructed?"

From twenty-three counties and one American state have been received thirty-eight replies. Some report them to be numerous in their vicinity; others say they are yet few, but increasing slowly. In the whole number of replies we have failed to hear of anything but satisfaction to their owners. Those who have had most to do with them speak out most decidedly in their favor. Many speak of them as being especially valuable in winter dairying, and also to stock-breeding. Says an Oxford man: "Silos are quite numerous in this vicinity, and all who have them like them. The number of silos increase yearly, but not as fast as they should, or must, if winter dairying is to be a success." From Huron we hear, "Silos are gaining ground in this district. They are all built of wood—mostly inside the barn. Some of those who have them were discouraged the first year: the ensilage did not keep well, for some reason—probably lack of skill in handling; but the longer they use them the better they like them." An Ontario correspondent says: "There are several silos in this district; nearly all have been successful. One or two parties complain somewhat. The reason in one case was corn too green; in another, too much waste of space near top. These difficulties have, I expect, been overcome the past season. Our own silo is a complete success." Says a Northumberland man: "There are twenty-two silos in this section, and as many more have a place picked out to build one. In fact, every farmer is satisfied with them; and all, without exception, are pleased with the results." Our Prince Edward Co. correspondent says: "A few silos were built last year. Here is what one practical farmer says of his silo: 'We have used one for nine years, and would not do without it if we had to build one every year. Ensilage is the feed for beef and dairy cattle, pigs, and other stock. There is no other food so cheap and profitable to the farmer.'

Materials Used, and Mode of Construction.—We find that the majority of silos are built of wood, and mostly square in form. A goodly number are double lined (hemlock), with tarred paper or felt between. Hemlock boards for the outside and matched tamarack for the inside have been recommended. Says a Glengarry correspondent: "Silos mostly constructed of wood; some have their lower section of stone when constructed inside a basement barn." From Northumberland we learn that matched pine coated with coal tar gives good satisfaction as a lining, as the tar keeps out the dampness from the lumber. The inside boards, next the ensilage, are usually dressed. One great essential is to secure strength in the frame, so that there may be no giving way, for the pressure is very great. A silo should be deep, and not too large (in surface of ensilage) for the stock kept.

Round Silos.—Round silos are coming into use in many sections, and give satisfaction in every instance. From Whitechurch township, Ontario Co., we hear of round silos being built like cistern-tubs,—with two-inch planks, held together by iron hoops. They are said to be much cheaper than other wooden structures, and appear to answer the purpose quite as well. The April 1st ADVOCATE gave details of building a round silo.

Stone Silos.—Our Wisconsin correspondent writes: "The stone silos, with outside of wood, and plastered inside with cement, are proving best, and when stone and lime are plenty, are cheap at the end of twelve to fifteen years." From Middlesex, and elsewhere, we learn of silos having stone foundations, upon which a brick wall is built, and the whole lined with cement, which are giving entire satisfaction. In Brant Co. some are built of stone, lined with matched lumber, and are proving satisfactory.

Our Peterboro' correspondent says: "If some who have had success with silos would explain their methods in the ADVOCATE, it would be profitable reading to many subscribers."

At Bothwell, Ont., a cement concrete silo has given splendid satisfaction.

The above testimony, coming, as it does, from leading farmers, should carry conviction to many who have hitherto held prejudices against the silo. We believe, however, that the prejudiced ones are becoming fewer year by year, and the reason silos are not being more rapidly built is because of lack of ready funds. Now, while it is unwise to increase one's obligations in an uncertain speculation, yet, when a silo can be home-made, with material which can be purchased for the price of a few hogs or a couple of cows, surely no one will be made bankrupt by putting up a good silo. From our knowledge of the present state of agriculture, we conclude that success in farming in the future must come from producing that which will command the best prices, and by lowering the cost of production, both of which are materially aided by the judicious use of the silo.

Who Profits by the Trade in Ashes?

BY W. F. MASSEY, NORTH CAROLINA.

The United States agricultural papers are well supplied with standing advertisements of dealers in Canada hardwood ashes, and to us, at a distance, the question occurs, "Where do all these ashes come from?" Not from the marts of trade, because the fact that they are ashes indicates a large destruction of the products of the soil of Canada. They must come from the farms of Canada, but one can hardly understand why the Canadian farmers should thus sell for present advantage the fertilizing elements from their soil, which, sooner or later, they must buy back at a much greater cost, for, although the Canada ashes cost the consumer at a distance far more than their percentage of potash is worth, we are told that the price received by the Canada farmers for these ashes from the collectors is very low. We once bought a carload of these ashes, which analyzed much higher than the samples now offered for sale. They were delivered to me for \$15 per ton. With the freight taken off, the actual price paid to the importers was not over \$5 per ton, at which price the actual potash they contained was cheap enough. But if the importers were satisfied to get this price, for how little a sum must the Canada farmer have parted with the fertility of his soil, for the expense of the collection, and storage, and importation of these ashes must be very heavy. So I have figured out in my mind that the Canada farmer got not over two cents per pound for the actual potash sold in the ashes, to say nothing of the lime parted with. Now, when he finds his cultivated soil getting deficient in potash, as he inevitably will, he must buy back that potash at four and a-half to five cents per pound. At the same time the purchasers of the Canada ashes, as now sold at a guarantee of five per cent. potash, are paying exceedingly dear for the whistle. It looks to me like a hard bargain for the farmers on both sides of the line. The farmer on this side can buy his potash in the form of potash salts much cheaper than in the ashes, and the Canadian farmer is parting with his potash for less than half what he or his children must pay to get them back. In selling off these mineral elements of fertility, lime and potash, the farmer sells what he must buy back in some shape. We lose enough of these matters in the crops we sell, which is unavoidable, but when we add to this the sale of the products of combustion, by-products that should go back to the land, we are burning our candle at both ends, and will reach the point of exhaustion sooner. Canada farmers, as we look at it, cannot afford to sell these ashes at the price they are paid for them, and American farmers can buy their potash at vastly cheaper rates. Out of the difference the importers grow rich, while the farmers pay the bill. While we have had good results from the use of these ashes, we have become satisfied that we got the results at a far greater cost, even considering the value of the lime, than we could have gotten the same results by purchasing lime and potash in other forms. When these things are transported by rail long distances the freight becomes the chief item in the cost. We once freighted ten tons of ashes at a cost of \$80, and got twelve hundred pounds of actual potash (more than the average amount). We could have freighted 10,000 pounds of potash in the shape of muriate from a nearer point for half the money. And this is the very point we would like to impress upon the producers of potash on the other side of the Atlantic: the immense saving of cost of potash to the American farmer living far from the seacoast, by relieving him of the necessity for freighting so much useless material to get the potash he is after. They should send us more of the concentrated article, for the freight over the Atlantic is but a small part of the inland freight in very many instances.

Arbor Day.

A provision for the setting apart of one day in the spring for the beautifying of schoolyards is worthy of our commendation and support. We believe we are correct in saying that more than half the schoolyards, especially in country sections, are uninviting, bare-looking places, unsheltered alike from the burning of the summer sun and the biting of the winter blast. There is, however, now and then a school ground to be found to which some attention has been given to its improvement in the way of planting shade and ornamental trees, the effect of which appeals favorably to even a passer-by. What must be the effect upon the children, whose day after day are spent, where their characters are being influenced and tastes developed for life? It seems not too much to say that if all schoolyards were made attractive and more grove-like than at present, as could easily be done by a little well-directed effort, very many of the school headaches, sore toes, etc., which serve as excuses for remaining home from school, would not be heard so frequently as now from the boys. Is it any wonder that they would rather play sick, or steal away to the woods and streams during the hot days of summer, than put in day after day, week after week, where nothing but work and hot sun are to be found?

A very little labor and expense will transform the surroundings of a school into delightful pleasure grounds. The trees, shrubs, and plants for the purpose can be obtained in some of the near-by woods. Besides what we have mentioned, the improvement of the schoolyard will accomplish a double object: the taste of the pupils will be cultivated, and they will become familiar with many charm-

ing objects which would otherwise be overlooked, and the garden-like spot will serve as an example and pattern for the neighborhood.

In Ontario, the first Friday of May is appointed by the Education Department to be observed as Arbor Day.

Now that Arbor Day will be on us shortly, let every parent arrange to give some assistance on that one day to tree planting and other improvements which appeal to him (or her) as necessary in and about the school grounds. Remember that the farm work will suffer no more upon that day by your leaving it than if you were sick or away to town.

FARMERS' INSTITUTES.

Practical Gleanings from Division No. III.

Horses for Profit.—Prof. J. H. Reid, V. S., O. A. C., Guelph—In the present depressed state of the horse market many say "quit," but I say the man who breeds the right sort may yet make the money. Study the market, and cater for what the public wants. Electricity has displaced the common bred street car nag, and I see no prospect for him. The sorts in demand are heavy draught, stylish carriage horses, and hunters. For good heavy draughts there is a demand in our cities, and practically an unlimited demand in England and Scotland—weight from 1,500 pounds upward; the lighter draught is not so good a seller. The carriage horse in greatest demand to-day has excessive knee and hock action, with quality, size, sound constitution, and stylish conformation, usually bred from trotting, Thoroughbred, and coach sires. Select good dams; if defective in any point, breed to a sire that will correct the fault. If she is deficient in quality, breed to a Thoroughbred; if deficient in action, breed to a Hackney. The Thoroughbred is the most prepotent sire, hence should be most carefully selected. The Hackney often gets good carriage horses, providing the mares are carefully selected. They should have plenty of hot blood. Saddle and Hunter horses are in great demand. I have looked in vain for weeks for a number to fill an order. Stylish Canadian-bred horses have been selling higher in the States, because breeders there have been paying more attention to producing trotters, without regard to anything but speed. At the very foundation of horse-breeding there must be soundness, and no one should breed to a vicious animal. Not more than 20 per cent. of the mares formerly bred were bred in 1894, and the same will likely be true of 1895; the supply will, therefore, decline, and the demand is bound to increase.

In reply to a question by Mr. A. J. C. Shaw, Prof. Reid said while he did not recommend breeding to jackasses, yet if a big Spanish jack were bred to a big, loose mare, a tough, serviceable work animal would be produced, but not a marketable horse.

E. B. Tole—When horse breeding is neglected, as at present, then is the time to improve. Do not mix breeds; and keep a definite object in view. I have found it more profitable to produce the kind I can utilize to best advantage on the farm, disposing of the surplus. Where soil and roads are heavy, I prefer the Clydesdale, as he is large, strong, hardy, well put together, of good temper, with the best of feet and legs, and a good walker before either plow or wagon. Next in order to him is the Standard-bred trotter, if properly bred and mated, so as to raise horses from 11 to 12 cwt. Select an individual descended from the right type for a sire. Though of the desired size and type, yet out of a pony mare, will probably get pony stock, uneven and undesirable. None of the Standard-breds compare with the Hamiltonians. From my observation, it is harder to raise high-priced carriage or coach horses than road horses of equal value.

Specialties in Farming.—Reene Robinson, of Romney—Wherever a farmer makes one branch of farming a specialty, and sticks to the business, he is sure of success. Settle on some branch of husbandry suitable to your taste, and choose a farm adapted therefor, make it the object of individual study and attention, be industrious and frugal, and success is certain. I know three neighbors—one a breeder of thoroughbred stock, one a feeder in the stall, another a feeder in the pasture—each pursuing different lines, but making each line a specialty, and a success. I visited a one and a-half acre fruit garden last season, on which the owner made more money than hundreds of farmers who cultivated 100 acres on the mixed principle. A vegetable specialist, on ten acres near Kingsville, made more money, according to capital invested, than any mixed farmer in that vicinity.

Fruit Growing on the Farm.—A. H. Pettit, Grimsby—I will speak on "Fruit Growing in Connection with the Farm Proper." Why has apple growing not been paying some people of late years? Suppose two-thirds of our wheat were screenings and fowl weeds, and only one-third good grain, would it not be a very bad business? Farmers are now producing this sample of apples—too many varieties, for which there is no market and too much scab. In my apple orchard I grow Northern Spys, Baldwins, Rhode Island Greenings, and Golden Russets, and if I had to drop one of these it would

be the Russet. Find out the sorts that are hardy, productive, yielding fruit of good size and quality in your own locality. Plant sparingly of summer and fall varieties. Cultivate the orchard, ploughing late in the fall, harrow occasionally to keep down weeds. Trim so that a small team can go beneath the trees. Train Greenings up and Spys down. In my orchard alternate rows of apples were sprayed, and the difference could be seen half a mile away. On the sprayed trees the foliage was beautiful, and the fruit good, while the unsprayed trees yielded little or no fruit, and the foliage was very bad. The cost per application amounted to about 1½ cents per tree, or eight cents for the season. Spraying was also effective for mildew, the aphid, and slug.

Last fall wrapped Bartlett pears in tissue paper, and put in cold storage; during winter sold them in Montreal for four times fall prices. With proper cold storage and transportation facilities, it would be possible to ship our grapes, tomatoes, etc., to England at a good profit. We have got the English apple market, but are not half supplying it. Our fruit is badly picked, packed, and shipped. Growers should look after their own packing, and see that a barrel of poor fruit is never allowed to leave the place. Cull severely. Never leave apples out in the sun or storms. Use good barrels. In packing only slightly round up the top, so that the apples will not all be crushed putting in the head.

Orchard Planting and Care.—Frank W. Wilson, for an orchard site favored a well-drained, northern slope, not too stiff a clay. Protect by rows of evergreens from winds and frosts. Plant in spring soon after the frost is out, though first part of November is a very good time if season be wet. Transplanting should be done at short distances to avoid exposure and climatic changes. Make holes large enough to let roots into their natural position. With sharp knife remove bruised roots and unnecessary limbs. Apply a mulch to keep the surface soft and moist. Cultivation should be followed for about six years, then meadow two or three years, and next, pasture with hogs. Trimming should be followed up each year after planting. Allow no apple limb nearer than five feet to the ground, and trim upward. Cut closely. Cover large cuts or bruises with grafting wax or paint. Scraping rough or moss-coated trees can be profitably done in mild winter weather, and a wash of weak lye, soap or ashes and water applied with broom or whitewash brush.

Road Making.—Wm. Dickson, Atwood, representing Good Roads Association—If people would consider when they are doing statute labor that they were working for themselves, there would soon be a great improvement. Pathmasters are changed too frequently—that is, good ones. Drainage is the first essential in road-making; next, good grading is necessary—a gradual round; no abrupt, deep ditches, which are dangerous. A fair width between ditches would be about twenty feet. Road machines are giving good satisfaction, and are better than the old scraper. Harrow, roll, and apply gravel, which should not contain clay or big stones. A regular Macadam or Telfer road would cost \$1,700 or \$1,800 per mile, which was too much for ordinary municipalities. Wide tires would help to solve the road question about as surely as anything else. Townships, as far as practicable, should work according to some common plan, and have pathmasters instructed accordingly. Radical changes are not desirable; municipalities now have the power to commute statute labor.

From data prepared by Mr. A. J. C. Shaw, it was quite apparent that, considering the amount of labor represented by the statute labor of Kent County, much better results should be shown.

DAIRY.

U. S. Filled-Cheese.

During a recent visit of an Ontario dairyman to some of the Western States factories where filled-cheese is being made, the process was learned to be as follows:—The milk, when taken to the factory, is put through a separator, removing the cream, which is manufactured into butter, to which, so far, there should be no objection. However, the skim-milk then goes to form the basis for filled-cheese. To this must be added something which will take the place of the cream which has been removed. Inferior butter, melted, supplied the substitute, but the mixing of pure butter with curd was not a success, as it could not be incorporated so as to be "held" without a great deal of waste during the process of manufacture and curing, until it was found that if the milk and fat were heated up to 130 F. a "staying" mixture could be prepared. Whether poor butter played out, or from whatever cause, men began to look about for a cheaper article, and ultimately found in cotton-seed oil something to supply the want. Even after this discovery unscrupulous men groped about for a cheaper substitute, which was found in Chicago in connection with some of the great dressed meat establishments: a sort of animal oil known as "Neutral," which is put up in barrels and transported to its market, the "filled" cheese factory.

In the manufacture of normal or whole milk cheese, the highest temperature to which the milk is subjected is about 98°, but as already mentioned 130° is necessary in the process of making filled-cheese, which has the effect of rendering it indigestible. The oil is sprayed into the heated milk by a steam jet.

The whole process is so well manipulated that all but experts might easily be deceived in the appearance of this "stuff," and take it for cheese made from normal milk. Were this the end of the evil, there would be less cause for complaint than now exists; but what do we find? The market for all kinds of cheese is demoralized, because the filled-cheese seller can afford to sell his product for much less than normal milk cheese can be made. Nor is this the greatest trouble, for if the filled product was wholesome and good, every factoryman could make filled-cheese, and thus realize more money than he now does; but filled-cheese is a greasy, indigestible article of food, and when eaten as cheese gives the consumer an idea that cheese does not agree with him, and from henceforth he leaves cheese out of his diet; thus one of the most healthful of foods is barred from a place in the market to that extent.

Filled-cheese, like bogus butter, is frequently sold from the factory under its true name, but before it reaches the consumer it loses its name and is ultimately eaten as normal whole milk product. "Filled-cheese" has had a most disastrous effect upon the legitimate cheese industry of the States; and only recently we noticed that a warning circular was sent from the Liverpool Provision Trade Association to the Wisconsin authorities that unless immediate steps were taken to stop the manufacture and shipment of these "goods" it would be quite impossible to sell Wisconsin cheese at all in the British market. If our information is correct, Wisconsin has not been the only or the chief sinner of the States in this respect, and we are pleased to note that vigorous legislative measures are being taken in various quarters to stamp out this vile fraud. We have done so before and we do again warn Canadian dairymen to keep these "unclean things" outside the borders of the Dominion.

Farm Buttermaking.

BY F. J. S.

Churning.—We usually churn ripened cream in the farm dairy, and as a rule we think it best. Use dashless churn, and strain cream into the churn. Our rule for temperature is to churn as low as possible to get butter in 20 to 45 minutes, and avoid difficulties in the churn. From 56° to 60° are safe summer temperatures, and 60° to 65° in winter; it may, however, be necessary at times to churn lower or higher. These temperatures are for gravitation cream; separator cream, if taken with 25 to 30 per cent. fat, should be churned lower, say 50° to 54°. Sweet cream must be churned as low as possible to get all the butter-fat from the cream. Very large quantities of butter are weekly thrown away in farm dairies from lack of exhaustive churning. Low temperatures have at least two advantages: more thorough churning and better textured butter. Where shallow-pan cream is quite thick when creamed and close skimming is done, the product may be churned at quite low temperatures, the per cent. of butter-fat largely influencing this.

Really fine, properly ripened cream churns without difficulty and can be relied upon. Very thick cream should be thinned, using water or skim milk, to churn properly, thick cream usually churning too rapidly or too slowly. Objections are, however, rightly raised to the need of thinning; as there is almost always undue loss of fat in the buttermilk. Very rich cream churns quicker than cream low in fat. A sour but thin cream should be churned at a comparatively high temperature. Such cream does not usually thicken up much while churning, loses largely in the buttermilk, and if churned at a low temperature, froths or foams in the churn. Cream of rank odor and bad flavor usually gives trouble in the churn; either it will not break, or having broken, will not gather. Churn it at a high temperature. The larger the quantity in the churn the higher the temperature needs to be, and *vice versa*: do not fill more than half full. Frozen cream tends toward insipid flavor and paler color in the butter, which does not keep as well. Fast churning—less than twenty minutes—usually results in extra loss in buttermilk, and in poorer textured product. In the use of "color," suit your market; look well to your color that it does not get off flavor and spoil your butter. When the butter breaks, it is good to add some water to help get a separation, unless the cream is quite thin, as in deep-can setting. Add cold water in summer and 55° to 60° in winter. Churn till butter is about like small wheat (when you should have a good separation) and draw off buttermilk. In obstinate cases a little salt will assist in separation, and in fall and winter you may find it necessary to draw off some of the buttermilk early to assist the gathering.

Washing and Salting.—Wash just enough to get rid of the buttermilk. Do not allow the butter to stand long in the water while washing. Undoubtedly water injures the flavor, and there are those who successfully make an unwashed butter. Allow to drain for fifteen to twenty minutes in the churn, then salt (with the best salt you can buy)

to suit the market. The butter should be kept in granular form until salted. We prefer dry salting; brine salting is twice objectionable: first, because inexact and not uniform from time to time; and secondly, because of the standing in water. Salting in the churn is an excellent practice, the barrel churn being very convenient and perhaps the best. To get uniform salting, weigh churn and butter and deduct the weight of the churn, or calculate your butter from the number of pounds of milk from which it has been taken. If cream is uniform from time to time and equally good churning done, it may be used as the basis of calculation.

Working.—Use a lever or roller worker, and not a bowl and ladle. Keep the hands out of the butter. If salted in the churn and allowed to stand an hour and a-half or two hours, once working is quite sufficient, stopping as soon as the streaks disappear. If salted in the churn, wash with water cold enough so that the butter will remain in the granular form while salted, when the butter will take the salt more evenly and need less working. When salted on the worker, more working is necessary and the need of a quick dissolving salt is more evident. In any case work the butter so that when examined twenty-four hours later no streaks appear; if much streakiness is present, re-work. On a roller worker it is best to count the revolutions. If intending to work twice, work just enough at first to thoroughly incorporate the salt, then set aside a few hours for the salt to dissolve, and work again. When the streaks fully disappear, it is finished.

Whey Butter.

Bulletin 85, of Cornell Experiment Station, treats of the process of securing the fat of whey and churning it into butter. The practice was commenced with the purpose of making some investigations as well as to give students practice in running the separators. From whey containing .25 of one per cent. of fat, 2.57 pounds of butter was made from 1,000 pounds of whey, which shows that practically all the fat that escaped from the cheese was recovered by the separator and churn. The manufacture of whey butter differs from ordinary butter-making in only a few details. The whey had to go through the separator twice; the first time about one-tenth of the whole bulk was taken from the cream outlet, which was found to contain from two to five per cent. of fat, or about the same as normal milk. This so-called first cream was run through the separator a second time, when the cream extracted was about the proper consistency for churning. In all the experiments the whey was run through the separator immediately after it was drawn. At this stage it was warm and slightly acid, therefore in good condition for churning when sufficiently cooled down. The most complete churning was obtained when the churn was started at from 48° to 54° F. In regard to the quality of butter, the Bulletin states that it was sold along with the regular creamery butter at the same price. Good judges, who have seen the two kinds side by side, have been, in some cases, unable to detect which was made from whey and which from cream. In other cases inferiority in flavor and texture have been noticed in whey butter. Whether or not this product can be made at a profit is the practical question for the factoryman to settle. Not a few factories now have separators, etc., for winter buttermaking, which could well be used for extracting and making up the fat from whey. As most factories have the necessary steam power to run a separator, and as the butter might find a home market among the patrons of the factory, the extra equipment and labor does not appear to be much of a barrier to the industry. As the season advances milk becomes richer, and the loss of fat, in many instances, is no small item. The thickly-coated whey tanks stand in evidence of this. The careful makers, of course, endeavor to incorporate in their cheese as much as possible of the fat which the milk contains. "Whey Butter," we might add, is no new thing, as some Old Country dairymen are well aware.

The Use of Cream Separators—Easy to Run.

SIR, I notice in the last issue of the FARMER'S ADVOCATE that "F. J. S." says that cream separators are hard to turn. That is not the case if you have the right kind of separator. I now use the De Laval No. 3 (which is really a power separator), and find it very easy to turn by hand. A boy ten years old can turn it and think the work fun. Deep setting is out of the question; I have used deep cans long enough to know that a separator is far ahead. One cow will make at least \$2 a year more when separator is used instead of deep setting, not counting very much less work. With deep cans one does not know how much is being lost. Say a man was keeping fifty cows, and using deep setters, it would cost him \$1 per day for washing cans alone. Having had considerable experience in creaming the milk of my pure-bred and grade Jerseys, and ordinary cows, I certainly would advise every dairyman to invest in a De Laval machine. I have succeeded in separating milk cooled down as low as fifty degrees with it. I believe it will pay for itself in one year, by saving of labor and extra quantity of superior cream. I would say that a dairyman with a separator could not afford to do without a separator, as only the losses in cream saved, but the milk is left in perfect condition for feeding. H. LAWSON, Middlesex Co.

APIARY.

To Prevent Spring Dwindling.

Much of the success of the coming summer's honey crop depends upon the strength of the little workers when starting out in the spring. When the warm days come the active work of the bee-keeper commences. Colonies should be examined to see that none of them are lacking in stores. There is sure to be more cold weather, which should be guarded against by paper and cushion coverings to prevent chilling of brood, for lost brood means lost bees in the working season. One bee lost now means just so much less honey. When colonies are weak they may be doubled up by putting two swarms into one hive, and destroying the weaker queen. More brood will be reared and more honey gathered by one good, strong colony than several weak ones. The strength of a colony can often be told by the manner in which they come out of the hive on a bright warm day. They should come out with a vim and a rush that can be easily distinguished from the timid, half-hearted manner in which the members of a weak colony emerge. As long as the weather remains cold there should be some bright straw laid before the hives, upon which the little fellows can alight if necessary before entering, as they frequently return chilled and unable to make the hive. Many bees are lost in this way, which leaves a dwindled colony which becomes weaker and weaker until they become unable to do more than support themselves.

Experience is acknowledged to be the most effective teacher. I well remember my first swarm of bees. I protected them in the fall according to the best methods I could find, and had faith in their blooming condition the following spring. Alas! too much faith; I failed to see to them in spring, and they starved to death. When bees come out strong and in good shape, they can be helped by supplying them with artificial pollen in the shape of ground oats, rye or corn, placed in a shallow pan in a nice warm place near the hive, which they can be aided in finding by placing a little honey on the side of the vessel.

Water, too, is necessary for them while rearing brood. This they should not have far to carry, but it can be easily given them near at hand. Floats should be placed in the dish so that they can drink without getting wet.

Bee-keeping as a Business.

BY JOHN MYERS.

A correspondent asks the following question:—"Having about five hundred dollars at my disposal, and knowing scarcely anything about bees, but being desirous of engaging in some business which does not require a large capital, I thought of trying bee-keeping; but before doing so, I thought I would ask whether, in your opinion, I would be able to get a reasonable return for the time and money expended therein?"

In the first place, I would say to any one that has not had any experience in keeping bees not to think of investing five hundred dollars—no, nor even more than quarter that amount—until you have gained some knowledge of both the bees themselves and the bee business as well. A person might just as well expect to succeed by starting up a tailor shop, and after expending five hundred dollars in tweeds, say to the public: "I am now ready to make you up the finest suits in the country; if you don't believe me, step into my shop and look at my fine stock of tweeds. Oh, but you say, that is all right—this man could hire some professional tailors, and then he would be able to carry on business. I tell you, my friends, in these times of keen competition, if a man does not understand his business, and know just how his cloth is being cut, in nineteen cases out of twenty he is going to fail. And so is the bee-keeper who is going to hire help to run his apiary while he stands around and looks on and learns the business.

But suppose my friend has kept a few colonies of bees, and feels he has had experience enough to be able to manage a large apiary. I would not even then advise him to expend that amount of money in bees alone, especially if that is the sum total of his bank account, or, in other words, if it is all he is worth in this world's goods, which I take for granted it is.

My friend above states that he is a young married man; and if I were going to map out a course for such a person, it would be about as follows: In the first place, I would purchase a piece of land and build thereon a small-sized house—say land and house to cost \$600; I would pay thereon \$250, and borrow the balance. I would then buy ten hives of bees, which should cost not more than \$80; now spend the remaining part of the hundred dollars in good bee literature, hives and fixtures, which would buy enough for the ten colonies for the first season. He would now have \$150 left; this could be profitably spent in some good poultry, some small fruit plants, vegetable seeds, etc.; and if he has any "get up" in him, he can raise more than his own supply of vegetables; at the same time he can increase his stocks of bees and poultry, sell his honey, eggs, fruit, and vegetables, and besides making a living for himself and family, he ought in a few years be able to pay off the money he borrowed on his place; and if he attends to the above as he should, he need not be without work the year round.

Having kept bees for the past fifteen years, with

bee stocks at times as high as one hundred hives, while at the same time I have been engaged in poultry-keeping, fruit-growing, and gardening. I have kept a strict account of the profits of each branch of business, which shows that the bees have paid better than any of the other lines alluded to; yet if I had increased my number of colonies of bees, and lessened some of the other branches, I don't think I should have done as well. I consider that sixty colonies of bees in one yard will give a greater amount of profit per colony than a larger number, and the owner can attend to that number and have time to look after his garden, or other pursuits; but if he increases his stocks to a hundred or more, it will necessitate devoting his whole time to his bees, and at the same time the larger number of bees working on the same area of blossoms will materially lessen the yield per colony; and then there is the fact that every now and again we have a season that is unfavorable to the secretion of nectar in the blossoms, and the bees barely make a living. Hence my advice to all about to start in life is: Don't put all your eggs in one basket; but whatever pursuit you do follow, if possible give the bees a good sized basket.

POULTRY.

Plain Talk on Successful Keeping of Poultry.

[Paper read by C. J. Daniels before the Ontario Poultry Association.]

A common and one of the worst mistakes made with poultry is over-crowding; that is, putting too many birds in too small a space. Many reason that if a dozen hens will give their owner a good yearly profit, another dozen would double the profits. This is a big mistake, and one to be avoided if you expect to realize good profits. My advice is, don't put two dozen hens in space that's only big enough for one dozen. With less space they are over-crowded, with over-crowding comes a loss of tone and vigor, making the fowls more susceptible to disease; vermin more easily finds a foothold, and a great many of the evils of the poultry-yard are traceable to an over-crowded flock. Experience teaches us that health is as necessary in the organism of a fowl as it is in the human family. When the organs of a man are deranged, he can neither appear to so good advantage, nor do anything so well as when all parts of his physical machinery is intact and properly adjusted, and the same conditions hold good in a fowl.

Your poultry-house is another consideration. Let it be cheap and simple in the construction, but see that it is properly ventilated, avoiding drafts or currents of air near roosting places. Fowls should have protection from sudden changes of temperature during all seasons of the year. Rain and sleet should not drip through the roof upon their bodies, neither should they be allowed to run out in snow, slush or cold rain. Exercise is constantly needed by fowls; they should have dry leaves, chaff, straw, hay or dry dust to scratch in. In feeding, I go into the pens and bury the grain in the leaves, etc., with my foot. I have been asked by visitors hundreds of times why I do this; I tell them my birds have to scratch for a living.

Drinking-water should always be within reach, and at all times fresh; it will also pay to always feed good, sound grain. Grit of some sort is indispensable, as it helps digestion: in fact it's the fowl's teeth. If fowls have half the care you bestow on your horse or cow, they will pay a much larger profit than either the cow or the horse; in fact, a little hen getting a reasonable amount of care is the best paying critter on the farm.

A Successful Start with Poultry.

Amos Causey, Norfolk Co., writes us:—"About three years ago I became possessor of a farm in the County of Norfolk, on which I decided to commence farming operations. On visiting the neighborhood to learn of its suitability to agricultural operations, I was led to believe that starvation awaited me if I came there. I took the advice for a time. I then commenced taking the FARMER'S ADVOCATE, in which I learned how to live and do well, even on poor land. I commenced keeping poultry in a small way, which soon enabled me to buy a cow in calf. She was giving enough milk at that time to supply our family of five and enough butter to sell to pay her feed. I am also bringing up a Jersey calf, which I bought upon the skim-milk. My wife knew nothing of butter-making until we began to read your valuable paper. I feel amply repaid for the subscription price, and would not think of doing without it upon any consideration, believing that if we follow out the teachings of the ADVOCATE we shall not starve, but be able to pay our way and lay by a little for old age."

The following is my poultry account for 1891: Commenced the year with 31 fowls, from which I sold through the season, chickens and eggs, to the value of \$62.47, which cost in all, including the loss of two hens, \$31.02. My flock now numbers 40 birds, which gives a nice little profit from work, which was done on mornings, evenings, and holidays."

The Necessity for Exercise and Sunshine for Winter Egg Production.

BY MRS. IDA E. TILSON.

Instead of trying, as "Samantha Allen" would say, to collect my "scattered minds" upon some new topic, I will give a few "notes from the field" of Minn. Institute work. Those connected subjects, the winter egg and the early chick, continue popular. In January, I saw at Dover a good illustration of my argument that the late chicken has size without maturity and capacity for work, just as has many a rapidly grown youth. Some fine pullets, so large I should not have known them from hens, a cross of Silver Wyandottes and Light Brahmas, were proudly shown as a late June hatch. "Do they lay?" I queried. "No," said their owner. We cannot readily start a train or any vehicle on an up-grade, but if we begin on the level, the momentum gained will help carry us over the ascent. Likewise, you cannot easily, during cold weather, start fowls into laying, but if they were old enough to begin beforehand, then properly fed and continuously cared for, their laying can be triumphantly carried through the winter. Conversing lately with the Agricultural editor of the Minneapolis Tribune, I found his last summer's experience repeated my own as to that side product, our surplus cockerels. He kept a close account of the cost of food, except milk and grass. When his chicks had cost five cents each, he sold some for \$2.50 per dozen. When the remainder had cost 15 cents apiece, he again sold some for \$2.50 per dozen, likewise. And when those still left had cost 20 cents each, he got but the same, \$2.50. The price goes down faster than the size rises. Early chicks and early sales will secure the profits, until everybody joins the procession and has them.

At Dodge Center, I saw a fine lot of Brown Leghorns in a house amply warm, but they had been shut up all winter without a scratching-shed, and even without rubbish on the house bottom, consequently those naturally active, prolific birds were not laying at all, while their combs were in better condition than their feet. Every creature, I guess, has its thigh muscles attached to its trunk, and movements of the former must exercise the latter. Activity of the legs calls for more rapid pumping of blood by the heart, which, in turn, asks the lungs to hurry in purifying and thinning that blood. Those lungs then necessarily request the digestive apparatus to furnish more material. Thus, as in a mill, all the connected bands and wheels move, and we sensibly send out alike the sick man or the non-laying hen to exercise. The above hen-house was banked with straw, sides and roof, including a shed-like room on the east, used as a roosting place during summer, but abandoned in winter. The owner could not very well disturb his banking. In the shed roof was a window, which could be uncovered easiest, and, if need be, enlarged. With plenty of rubbish within, I felt sure his hens would gladly use that shed-room as a scratching place. So many tell me their shut-up hens watch every time the doors are open for a chance to step out. At Spring Valley I saw a man having a real picnic getting in some such refractory Leghorns. Other poultryers tell how their hens invade wagon and machine sheds, which reminds me that our home biddies, when deprived of certain stumps having brush growing up from them, appropriated our rose-bushes as summer shade and shelter. At the last-named place there was presented me a new idea for a scratching-shed, said shed being entirely enclosed with unbleached muslin. An old soldier evolved the idea from his familiarity with tents. A real, rough, snowy winter would probably break and rot his shed, but this has been a favorable season for such a structure. He also made window-shutters of the muslin. At first, shut-up hens lay more, because their food largely goes to make eggs, none being consumed in exercising, but such fowls are apt soon to stop laying altogether and to put on fat, since their's is an unnatural life. Sunshine, the great consumptive cure and tonic, should be administered freely to laying hens.

All good farmers know how to feed enough, but to feed for results is a different matter. Director Jordan, of the Maine Experiment Station, fed, for seventeen days, two pens of twelve Plymouth Rock cockerels each: one set on corn alone, and the other set on corn and beef scraps. Each lot had the clam-shells, gravel, potatoes, and pure water, which the farm furnished. The first lot gained 4 lbs., at a cost of 34 cents, or 8.6 a pound. The second lot gained 8 lbs., at a cost of 41 cents, or 4.7 per pound. Blood in place of beef scraps was not so successful. The above illustrates feeding for flesh. To feed for eggs requires equal discrimination. While his neighbors are pouring out corn by the bushel, getting nothing in return, the wise poultryman may, by judicious combinations and by the expenditure of a little more time and money at first, eventually receive good profits. The greatest secret—an open one, though—of growth and subsequent egg-production is variety of food sufficient to directly furnish the egg elements and to make hens vigorous enough for continuous laying. A successful poultrywoman at Janesville laughingly, but meaningly, told me she had fed everything on the farm. That fowls can and will eat so many things, is Nature's vote for variety. Feed nothing exclusively, but mingle meat, bulky vegetable food and grain. I have invested in a new \$10 bone-cutter. It works with a lever, which is easier than a crank, and does just as good work as the larger machines with cranks and

costing \$16 or so, but mine has a small hopper, and is much slower. For both machines, especially the latter, bones, except, perhaps, rib bones, must be broken by the back of an axe a little before run through. An analysis of bones, at experiment stations, shows that those of all animals contain about the same elements, but differing in amounts and solubility, hence a bone-cutter grinds out a most perfect food for the growing chick. At Spring Valley another successful poultrywoman was warming all grain fed in the winter. I have not been surprised to find boiled potato-parings causing looseness of bowels. Small potatoes, boiled entire, would be more wholesome. Where hens are unaccustomed to charcoal, those fed softwood ashes and charcoal, rather than hard ashes at first, have no difficulties.

Fresh Eggs and the Poultry Business.

BY JOHN J. LENTON.

The city consumer often asks the question, "Why is it I cannot get good, sweet, fresh eggs from my grocer?" This cannot be wholly laid at the door of the obliging city grocer. Every man, woman, and child who handles the eggs is more or less responsible for their condition at the table. But let us address a few remarks to the farmer, or, more properly, the farmer's wife, for it is she who generally looks after the welfare and comfort of the fowls, from which source she often obtains her pin-money, and frequently the necessities of life.

City people are perfectly willing to pay well for the luxury of fresh eggs if you will supply them. Take care of your eggs, and it will be money in your pocket. Gather them every day, and market them often.

In winter, supply the hens with warm, comfortable houses, and clean, dry roosts and nests. If the weather is excessively cold, give plenty of warm water twice a day. Warmth is more potent in inducing hens to lay than anything else. You can get no eggs in winter from a shivering hen. Keep the inside of the hen-house whitewashed, and sprinkle the floor frequently with slaked lime or thick whitewash. This kills the vermin, and counteracts the dangerous effects of impurities arising from filth, and keeps the air sweet and pure.

Farmers, just accept this little bit of advice: instead of investing twenty-five dollars in another cow, invest in a brood of one hundred hens, and if these hens are properly cared for, we promise they will lay you twelve to thirteen hundred dozen eggs in a year, which, if marketed fresh, will bring you in the neighborhood of one hundred and seventy-five dollars. What better investment do you want? Do not try to do too much. More than three or four hundred hens on a farm will be a burden.

The profitable laying period of a good healthy hen is about thirty months, and she should be fattened for the market during her third year. Do not sell your young hens, for they will make your best layers during the winter season, when eggs are high. Never sell a young hen, but instead fatten up your old hens and cocks once in each year, and market them. For an all-purpose fowl the Wyandottes and the Plymouth Rocks are the most popular, although there are many other good kinds. Introduce new blood into your flock each year by securing fresh male birds.

The Canadian farmers, as a rule, do not pay enough attention to their poultry for their own good. A young hen is not a worthless nuisance to be left alone to pick her own living. She is valuable property, and, if properly cared for, will pay you larger interest on your money and labor than any other farm stock. Increase your flock to two hundred hens at once. Build a suitable house for them. It will pay you. Few are aware of the value and importance of the egg trade as a source of wealth to a nation.

The amount of business done in the United States in the egg trade exclusively will amount to over \$200,000,000 each year. New York City alone consumed \$12,000,000 worth in 1890, at an average price of eighteen cents a dozen. The poultry and egg business outranks any single product, except corn raised and sold in that country.

Notwithstanding these facts, we find people who think it small business and time wasted for the farmer to give his poultry flock a little time and attention. A farmer could do a great deal worse than make poultry raising the main branch of the farm industries.

Ontario Veterinary College.

The closing exercises of the Ontario Veterinary College, which took place on March 29th, constituted quite a brilliant affair, owing not only to the number of prominent gentlemen present, but also to the creditable standing of so many students. This Institution has won for itself a reputation which draws men from all parts of the American Continent, Great Britain, the West Indies, and even from the Antipodes. Upon this occasion 150 graduates received diplomas. The prize and medal men received their trophies at the hands of the Lieutenant-Governor and other noted visitors. To Prof. Andrew Smith, F. R. C. V. S., is due hearty congratulations upon the success of the O. V. C., of which he is Principal.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

AILING COW—OBSTRUCTED TEATS—MANGE IN PIGS.
YOUNG SUBSCRIBER:—(1.) "I have a young cow, calved about a week ago; about three weeks before she fell away in flesh greatly; appetite poor, scouring frequently. What would you recommend? (2.) The cow has small lumps, size of a pea, about the centre of two of her teats. They give same quantity of milk as the others, but the lumps prevent the milk from flowing as fast as it should. How could the obstruction be removed? (3.) Have a litter of pigs, two months old, which do not thrive, although well fed. They are continually rubbing and scratching, and there is a sort of rash on their bellies and inside of legs. What treatment would you advise?"

[1. We are of opinion that there must be some cause in feeding either frosted roots or innutritious hay. Give her the following dose of medicine every day until purgation is freely produced:—Epsom salts, 4 ozs.; powdered sulphur, 1 oz.; gentian, 2 drachms; ginger, 2 drachms. This should be carefully mixed, dissolved in warm gruel, and given to the cow immediately before feeding.

2. Cracks and sores on the teats cause much uneasiness when the cow is being milked, and will often cause an obstruction in the teat from a small piece of mucous membrane. An operation by a qualified veterinary, or the insertion of the milk siphon, is the only remedy.

3. First wash the skin thoroughly with warm water and soap, then apply any of the good sheep dips or soluble phenyle in the proportion of one part to twenty of water. Give a small quantity of nitrate of potash and sulphur in the animal's feed, say half an ounce to each painful food.

Dr. Wm. Mole, M.R.C.V.S., Toronto.]

SWOLLEN JOINTS.

MATTHEW NICHOL, Woodlands, Man.:—"I have a four-year-old mare that has a large swelling in the knee joint; the swelling starts about two inches above the joint, on the outside, and runs down round behind the joint; the swelling seems hard and firm. I think it is a twist or wrench she got when running out with a band of horses about eight months ago. She is quite lame, and stands with it pointed out."

[Apply the following blister:—Biniodide of mercury, one drachm; powdered cantharides, two drachms; vaseline, two ounces; mix. Clip the hair closely from the parts; wash the skin with warm water and soap; rub dry with coarse cloths; rub the blister well in with the fingers; let it remain for forty-eight hours; wash off and apply lard or vaseline to the blistered surface. Repeat in two weeks if necessary.

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

LUMP ON COLT'S JAW.

F. NELSON, Fleming, Assa.:—"I have a three-year-old colt that has a lump on under jaw. I just noticed it six days ago. There is no discharge from the nostrils yet. Colt is in good condition. Please advise?"

[The lump may develop into an abscess, and the only treatment necessary is to apply hot fomentations, or a stimulating liniment, to bring it quickly to a head, after which it should be opened freely with a sharp-pointed knife. W. A. Dunbar, V.S.]

Miscellaneous.

OUR REPORTS APPRECIATED—STABLES.

F. MARSHALL, Westbrook:—"We consider your reports of the best yielding varieties of grain, roots, etc., very valuable. Hope you will give us descriptions and particulars of other forms and designs of silos; also, which are best for cow stables, frame or stone, bank or surface buildings?"

[We refer Mr. Marshall to article on silos in this issue. We much prefer a stable above ground to one in a bank. Canadian experience, speaking generally, is in favor of the stone or cement concrete wall as against frame.]

ANOTHER SELF-FEEDING PIG-TROUGH.

N. BEDFORD, Glencross, Man.:—"A short time ago a writer in the ADVOCATE asked how to make a self-feeding pig-trough. I have been using one with great success for the last four or five years. It is simply a narrow box ten feet long, three or four feet high, two feet wide at the top, six inches at the bottom, with a little platform in front ten inches wide. I just leave room enough under the lower board in front so pigs can work the chop out with their noses, but not wide enough for the chop to run out itself. I find they do not waste any grain, as they only work out just what they eat up cleanly. I have a trough for water in the pen which I fill three times a day. Before I got the self-feeder, I did not like feeding pigs, but now I rather like it, as I can put enough chop in the box at one time to keep 15 pigs for a week, and it is not much trouble to keep them supplied with water and bedding. I got this idea out of the FARMER'S ADVOCATE a good while ago. I think the FARMER'S ADVOCATE a grand help on the farm."

KEEPING OVER ENSILAGE.

R. N., Middlesex Co.:—"Except spring pasture is very late in coming, I am going to have a lot of splendid ensilage left over. My silo is round, 14

feet in diameter, and about 30 feet deep. Will the ensilage keep satisfactorily through the summer?"

[We know of several farmers who have kept silage perfectly through the summer season, and can therefore recommend R. N. to rest assured that his ensilage will be all right next autumn. It would probably be better to cover it carefully with cut straw or hay.]

CRIMSON CLOVER.

A SUBSCRIBER, Lorneville:—"I would like a little information regarding crimson clover—the best time to sow. Does it require a foster crop? Does it make good hay for horses? Will it grow after it is cut? Will the hay be any good if allowed to ripen for seed? I will have no hay this year, and would like to know if I sow it in the spring could I cut it for hay this summer?"

[So little crimson clover has been grown in Ontario as yet little can be said with certainty regarding its usefulness in the Province. It has been grown on the Guelph College Farm for three years, and when sown in the spring it usually grew to a height of about one foot, yielding about one ton of hay per acre. Being an annual, it dies out each winter after the crop is removed. American authorities claim that crimson clover hay is nutritious and much relished by horses and cattle. It cannot be depended upon to produce an aftermath. We do not imagine that hay from crimson clover which has produced seed will be of much value.]

LUCERNE.

ANDREW YOUNG, Peterborough:—"Please inform me, through the ADVOCATE, if lucerne clover seed can be sown along with grain, like other clover seed, or has it to be sown by itself, and how much per acre?"

[Lucerne sown broadcast along with wheat, oats, or barley, sown thinly, comes along well for a crop the following year on deep, well-drained land. If sown alone it should be drilled in, when it will make quite a strong growth the first season, though not sufficient to stand much pasturing. About 15 pounds per acre is considered a good seeding.]

TOP DRESSING.

RODNEY:—"I have a field of light, sandy loam, which I seeded down in the fall and spring of 1893-94. It was mowed last year for the first time. The soil being light, the crop was light. Will you kindly inform me what kind of top-dressing you consider the best for it, and when it should be applied. How would it do to use unleached ashes at this season of the year, or what particular time would you advise using them, and quantity to the acre?"

[For top-dressing meadows nothing seems to give as much satisfaction as well-rotted farm-yard manure. When applied at this time of the year the litter from which it is made should have been cut, or else it should be put on with a manure-spreader. The proper time to have applied this sort of manure was last autumn. With regard to unleached wood ashes, we might say that a scattering of from 10 to 15 bushels per acre, applied now (better last autumn), cannot fail to give excellent results. So firm is the faith of many English farmers in the virtue of wood ashes that they consider them not only the chief fertilizer for light, run-out soil, but the sole thing needful to restore it to its former productive condition. Says Prof. Storer, S.B., A.M.: "A favorite way of applying wood ashes is as a top-dressing to grass-land and to pastures, where, by encouraging the growth of clover and some of the better kinds of grasses, they do good service in crowding out inferior grasses and weeds."]

SALT OR GYPSUM.

A FARMER, Kent Co.:—"Will you or some of your readers advise me on the following: (a) I have a ten-acre field which I wish to sow this spring with oats or barley. The soil is a clay loam, formerly rich, but having been rented for three years, has got a little 'run down.' I have it well fall-ploughed, and thoroughly surface-drained. It had oats on last year, but, being spring-ploughed, the dry season effected it greatly, and it only yielded about twenty-five bushels per acre. I want to seed it to clover this year, and wish to secure a good crop of oats as well, as I believe the land is still strong, only requires proper treatment. Which would you advise me to use—salt or gypsum? or would either be of use to such a crop, and how much would you advise to apply per acre, and at what stage should I apply it? (b) Also, how would it answer to apply gypsum to clover stubble as soon as hay is off, in order to hasten the second growth of seed? (c) I purpose enclosing an acre which has long been pastured and never ploughed, on which cattle and sheep have rested at night. Would you consider it suitable for mangolds and carrots, providing I plough it early, and work it often till seeding time, or would it pay me better to plant it to fodder corn? (d) How would you apply salt to root crops in order to get the best results, as I see salt is largely recommended for that purpose? The farmer of to-day must in my opinion strive to increase the yield rather than his acres. (e) Do you consider it proper to use salt to sow oats after oats?"

[(a) Neither the salt nor the gypsum would be of benefit to either crop upon the land to which "Farmer" refers. Better work the land thoroughly to prepare a splendid seed bed, which through working of soil produces for increased root growth, and thereby increases the plants' food-collecting capacity. (b) It would accomplish the same object in the second crop, and give you increased returns for its use to apply gypsum in the spring immediately after seeding. (c) The acre of pasture

to be ploughed in the spring can scarcely be brought into proper condition for either roots or corn this year. It should have been ploughed last fall, and, for mangolds or carrots, surface-cultivated and manured, either late in autumn or during winter. (d) Unless under exceptional cases, I would not apply salt to turnips. Upon mangolds salt usually gives splendid results, and may be applied at the rate of 300 pounds per acre, broadcast just before ridging up. (e) No. A. E. SHUTTLEWORTH, Professor of Chemistry, O. A. C., Guelph.]

LONG CHURNING.

MR. JAS. TABB, Auburn:—"Could you inform me through your valuable paper what is the trouble with cream. Have had great difficulty in getting butter to come by sometimes churning three hours. We use a revolving barrel-churn. Cows are fed well. Last summer, in addition to pasture, they were given green corn night and morning. Cream was rich and well-ripened, still it took a long time to churn it?"

[See "Trouble with the Cream," in Jan. 15th issue.]

GARDEN AND ORCHARD.

Nova Scotia Fruit Growers' Annual Meeting.

(SPECIAL CORRESPONDENCE.)

(Continued from page 93.)

"Facts and Fancies in Horticulture" was the subject of an address by J. H. Harris, of the Halifax Nurseries, which was of especial importance to those interested in vegetable and landscape gardening, also floriculture. The vegetable markets were impoverished for lack of vegetables in winter. There was profit in celery; mushrooms, lettuce, etc., could be grown in cold-frames and hotheouses with success. Outlines in landscape work should be natural. Trees in cities between buildings had often saved buildings from fire in adjacent houses; this was proved by actual experience. A few flowers in window of dwelling house was much better than many—less liable to disease, and better cared for.

"Merits and Uses of American Plums," an address by Prof. Craig. The wild plum of America belonged to *Prunus Americana*; the common plum, *Prunus Domestica*. He compared the good and bad qualities of each. The good qualities of the latter were their firmness in shipping; they were quite susceptible to diseases—black-knot and plum rot, were tender in fruit buds, and lacked in weight. The good qualities of the American plums were their extreme hardiness, great productiveness, and immense growth on a large range of soils less subject to attacks of fungi or insects. Their weak points were: soft fruit and poorer quality. The varieties in favor at Ottawa, among those tested: Clingstones, De Sota, Hawkeye, Wolf, Freestones, Wyant, Newman, Pottawatamie. These varieties he thought might do well in some parts of the Province where hardy varieties were needed. The Marriana made an excellent stock, and when fruited gave a small plum of good flavor. He spoke of the need of intermixing varieties, as some were infertile with their own pollen, others were completely sterile. Trees in planting should be not more than fifteen feet apart. Pick plums before completely ripened, as they would market better. Plums and peaches would keep for only a couple of weeks in cold-storage. The Professor later gave a talk on spraying in the orchard, and showed a chart illustrating sprayed and unsprayed trees, which showed a gain of over fifty per cent. in yield of No. 1 apples in sprayed trees over those untreated. Spraying should be applied as a preventive, and as an active remedy. The best nozzels in use are the Vermorel and McGowen, as proved by experiment.

Fertilization of Orchards.—A paper by Prof. Shutt, Chemist, Ottawa Experimental Farm, showed that the farmer was taking off a large amount of fertilizing agents each year, and if he hoped to meet with success he must return what he has taken, as well as often increasing the dose. By table, was shown the amount of nitrogen, potash, and phosphoric acid found in an average analysis of 1,000 pounds leaves, and barrel of apples. Advised the sowing of legumes as the agent for supplying nitrogen, when practical. The following tables showed formula of best results with commercial fertilizers to be applied to orchards, per acre:—

1—Nitrate of soda	100 pounds.
Ground bone	100 "
Superphosphate	125 "
Muriate of potash	150 "
2—Nitrate of soda	125 pounds.
Superphosphate	200 "
Muriate of potash	100 "
Barnyard manure	40 tons.
Kaolite	600 pounds.
Bone meal	150 "

The above formula could be selected from to suit the soil or conditions—all had been tried with success.

"The Pin-Borer" was discussed by W. H. Woodworth, Berwick. This was a pest well-known in the Annapolis Valley, local in nature, having destroyed hundreds of trees, attacking both healthy and diseased trees, boring small holes into the centre of trunk and limbs. Many remedies had been tried without avail, the best and only one found to be of any use—a mixture of crude carbolic acid and soap solution, prepared as follows:—1 part of crude carbolic acid; 5 to 7 parts of soap solution. Soap solution prepared by adding one quart of soft-soap to two gallons of water.

Best Fruits.—R. W. Starr, the Pomologist of the Association, reported on "the four best varieties of apples, pears, and plums suited for Nova Scotia." Apples—Gravensteins, Ribston, Baldwin, Nonpareil. Pears—Clapp, Bartlett, Great Britain. Plums—Moor's Arctic, Imperial Gage, Bradshaw, Lombard, Washington. The above in order of worth.

Cranberry Culture.—Henry Shaw, of Waterville, N. S., told the Association how he grew cranberries. He said he heard the way to grow cranberries was to plough his land, cut his vines up in a hay-cutter, and harrow them in; he did so, and failed completely. He then tried to do his work nearer right. In 1881 he had a swamp that looked as if it had once been a lake; he cleared it up, and ditched and ploughed it, went to the four-mile lake and got vines, and set them out (and just here, do not get your vines from the United States; they are infested with all kinds of bugs). He got his plantation under way, and has fair crops annually. This year, on one-quarter of an acre, he had twenty-seven barrels, that netted in Montreal \$7.34 per barrel. Mr. Shaw claims, and proved it by facts and figures, that one acre of cranberries will return equal to ten acres of the best dike in N. S. The cranberry business, yet in its infancy, bids fair to be the most profitable industry in Nova Scotia. Thousands of acres of land that is totally worthless, a paradise for bullfrogs and mosquitoes, by the expenditure of from \$50 to \$100 per acre can be turned into bog that will turn from \$100 to \$1,000 per annum. The market is secured. Letters from Montreal say that our cranberries are fully equal to those from Cape Cod, and they have a market there for all N. S. can grow. Letters from Montreal received by Mr. Shaw quote present prices at \$15 per barrel.

Election of Officers.—President, J. W. Bigelow, Wolfville; Secretary, S. C. Parker, Berwick; Vice-Presidents, Dr. H. Chipman, Grand Pre, and C. R. H. Stow, Wolfville. Spring meeting will be held in Annapolis in March.

The Rose Garden.

As spring is almost upon us, a few words on the planting and care of rose bushes are in order. The plants should be put in so that they will be ready to throw their roots into the ground by the time active growth commences. It is well to mulch newly planted roses with half-rotted stable manure a couple of inches deep, to add fertility and retain moisture. In pruning the heads, much more should be taken out than is usually done; thin out all weak sprays, and cut back all shoots that tend to make too thick a head. With young heads, it is essential that the wood should be left sufficiently long to form the head, but when the heads have attained full size, the wood should be pruned back to comparatively few branches. Dwarf roses just being set out should be pruned back to within six or eight inches of the soil, care being taken to have all the buds just below the cut, pointing upwards. If a little care is given as above directed, a yield of grand flowers can be expected during the coming season.

Treatment of Scabby Seed Potatoes.

Ellis F. Augustine, Lambton Co., writes us that he has secured excellent results from treating scabby potatoes with a weak solution of corrosive sublimate. Though his seed was badly affected, the crop was practically free from disease. The directions given are as follows:—Procure an ordinary barrel, and fit into the base a common wooden faucet. Purchase of a druggist two ounces of finely pulverized corrosive sublimate (*mercuric bichloride*). Empty this all into two gallons of hot water, and allow it to stand over night, or until apparently all dissolved. Place in the barrel thirteen gallons of water, then pour in the two-gallon solution. Allow this solution to stand in the barrel four or five hours, during which time it is several times thoroughly agitated to insure equality of solution before using. Select as fair seed potatoes as possible, wash off all the old dirt, and immerse as many as you can or wish to treat at one time in the solution one hour and a quarter. At the end of that time turn off the solution into another vessel. The same solution may thus be used a number of times if wished. After drying, the potatoes may be cut and planted as usual. Plant upon ground that has not previously borne the disease. Remember this chemical is a deadly poison, so exercise becoming caution. The solution should not be put in metallic vessels.

Salt for Fruit Trees.

SIR,—I have in my garden a large Bartlett pear-tree that from the very first to the present time has had the best of care in the way of manure and cultivation. When it began to bear, the fruit was all that could be desired, but after a few crops became scabby and cracked around the centre, as though strings had been tied around the pears, and eventually became so bad that they were entirely useless for any purpose. One spring, in emptying out the brine and dry salt off my meat, I dumped it around this pear-tree; and to my great surprise and delight that season it had a beautiful crop of pears, very few faulty ones in the lot. I have kept up the salting ever since, with the same good results.

In my apple orchard I have some Wagners (which, by the way, is a very choice apple, but a very poor tree), and they had become half-dead and worthless. The little fruit they produced the past year or three years was scarcely worth harvesting. Last spring it occurred to me to throw

the brine and salt from my meat about them. The result was the finest sample of apples I ever saw them produce—large and smooth, free from blight of any kind, and a worm-eaten one was almost the exception. I have them in my cellar well on in March, sound and fresh as when harvested.

This was only an experiment on a small scale, but, so far as tried, successful; and I would like to hear through the columns of the ADVOCATE from any one who has ever tried salt as a fertilizer about fruit trees; or will any of our horticulturists experiment with it this coming season, and report results. I intend throwing salt over my whole orchard this spring.

S. A. OTTON,
"Riverside Farm," Wardsville, Ont.

Transplanting and Care of Young Apple Trees.

BY ELLIS F. AUGUSTINE.

Among the many readers of the ADVOCATE there are no doubt a large number who contemplate setting out young apple orchards this spring.

The fall preparation should have consisted in selecting the site for the proposed orchard, and ploughing the ground to as great a depth as possible (if subsoiled, so much the better), and if the soil is not naturally drained, in thoroughly underdraining with tile. It is worse than useless to set out fruit trees upon a soil that is cold and wet, for although they may manage to sustain life for a few years, they will never thrive under such conditions, for the hearts will soon become decayed and the trees will eventually die. Of course, it is impossible to put in tile now; the planting need not be postponed, as the draining can be done the following fall, and one advantage will in this way be gained, viz.:—The drains can be placed exactly in the centre of the rows, thus avoiding all danger of rootlets entering the tile and causing them to become choked up.

I would say by all means procure trees for planting from some reliable home nursery, and if a personal selection can be made, so much the better. In regard to varieties, plant two or three trees each of early harvest, early fall, and late fall, for home consumption, and the remainder entirely of winter fruit. Now here is where the amateur fruit-grower usually makes his greatest mistake. As he examines the pages of the fruit catalogue he finds so many different varieties that are highly recommended and beautifully illustrated that it seems impossible to make a selection, so he finally decides to plant a few trees each of fifteen or twenty different varieties, thinking that amongst so many some will surely prove adaptable to his soil, and if some fail to bear certain years others will make good the deficiency. But he should remember that while buyers are anxious to purchase, and willing to pay extra prices for a large number of barrels of two or three good varieties, they will pass by, almost unnoticed, a job lot of three or four barrels each of fifteen or twenty different sorts. I would not recommend planting more than four different varieties at the outside, while many prominent fruit-growers would draw the line at two.

In choosing varieties, the most advisable plan is to visit all the bearing orchards in your immediate neighborhood, and after taking into consideration the care and cultivation each has received, determine from personal observation which are the most thrifty and prolific varieties. At present a red apple is most eagerly sought for in the British markets, although a first-class green apple will always find ready sale at remunerative prices.

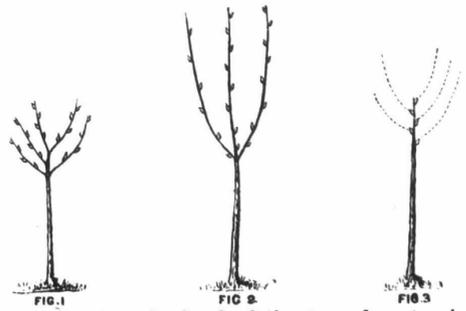


Another mistake that is too commonly made is in setting the trees too close together. They should be set not less than thirty-three feet apart, and even thirty-five feet would be none too far. This may appear quite a distance when the trees are first set out, but it should be taken into consideration what the spread of branches will be when the trees have reached the age of thirty or forty years. Before the trees arrive, the ground should be carefully measured over and a small stake driven in where each tree is to be placed. Be careful to get them exactly the same distance apart each way so that the trees will "row" in every direction, as this will add very much to the appearance of the orchard, and appearances go a great way towards adding value to everything about the farm. After the trees have been removed from the nursery, care should be taken to keep the roots constantly covered with damp straw or blankets, as a few hours' exposure to wind or sunshine may prove fatal to them. When ready to begin the work of planting, take a piece of inch board four feet long, with a notch cut in each end and one in the centre, and place so that the stake where the tree is to set will come exactly in the centre notch; then drive a small stake in each end notch and remove the board, pull up the centre stake and dig the hole exactly where it stood.

When ready to set the tree, place the board where it formerly lay (which is readily done, as the end stakes have not been removed), and set the tree so that the stem comes in the centre notch. This will insure straight rows, and save all trouble of sighting. The hole should be made considerably

larger than the spread of roots, so that none will be crowded, and the rootlets will have a fine mellow, though compact, soil in which to take hold. A few shovelfuls of loose surface soil should be thrown in the bottom of the hole in such a manner as to have it crowning in the centre, so that the roots will spread over it with a downward tendency.

All broken or bruised roots should be cut off smoothly with a shape knife, making the cut from the bottom of the root slanting towards the top. This will cause new rootlets to start out much more readily. The tree should be set a little deeper than it formerly stood in the nursery, and leaned slightly to the west, and if it is crooked, the bend should be set toward the west. The soil should be well worked in among the roots, and when the hole is about half full, a pailful of water may be thrown in, and the remainder of the soil replaced, tramping it firmly about the body of the tree. A mulch of strawy manure should then be given, taking care that no manure comes in contact with the trunk.



In forming the head of the tree, four to six branches should be left. These should be cut back to within four buds of the last season's growth. In cutting back always leave the last bud on the lower side of the limb, as this is the bud from which the new growth will start, and if left on the upper side, the shoots will all grow toward the centre of the tree. If the limbs are in such a shape as to be undesirable for forming a head, or if there is simply a crotch, cut away all the limbs except the straightest one, leaving simply one straight stem. From this a number of shoots will start, from which a satisfactory head can then be formed. The accompanying sketch illustrates the right and wrong ways of forming a young apple-tree head. Fig. 1 shows a properly formed head, cut back correctly at time of planting, with last bud left on outer side of branch. Fig. 2 shows an improperly formed head. Fig. 3 shows how a correct head may be formed from Fig. 2, by cutting off side branches and top of centre one.

And now, after the orchard has been carefully set out, it should not be neglected, as is too often the case, for it is only by the most diligent and careful attention that satisfactory results are obtained.

The trees should be carefully protected from mice and rabbits, and for this purpose a piece of sheet iron, rolled in the form of a tube, twelve inches long, and four inches in diameter, placed around the stem of the tree, is an excellent arrangement. In nearly every orchard which has reached a bearing age, the trees will be found to lean more or less in an easterly direction, often presenting a very unsightly appearance. This has been caused by the heavy westerly winds, which prevail during the fall and winter; and to prevent it—every spring for the first few years, after the frost is out, and the ground is loose and mellow, the trees should again be leaned slightly to the west, and the ground tramped firmly around the base. By following this advice, the trees will be kept perfectly straight, and the orchard will present such an attractive appearance that it will invariably elicit praise and commendation from every passer-by.

For the first six or eight years the ground should be kept perfectly clean by shallow cultivation, although a hoed crop may be grown each year, if care be taken to replace as much plant food as is removed from the soil. After this period the orchard may be seeded to grass, if it is not allowed to form a tough sod. And now the ground will require a greater amount of fertilizer than before, as there will be three different crops drawing upon the soil: the trees for increasing growth, the harvest of fruit, and the crop of grass. Failure to recognize this fact is the greatest cause of so many orchards failing to produce satisfactory results.

The trimming of the trees should commence soon after they have been set out. They should be gone over two or three times each season, and every branch that intersects another, or is inclined to grow toward the centre of the tree, should be cut out, as this will save the lopping off of large branches in after years, and will keep the centre of the tree well open, thereby facilitating the work of spraying and gathering of fruit.

In conclusion, I would add that if time cannot be had for giving the orchard the care and attention it demands, the work of setting it out had better never be begun, for, although a well-cared-for orchard will return a large dividend for the amount invested, there are already too many neglected orchards that do not pay for the land they occupy.

[NOTE.—Mr. A. H. Pettit, of Grimsby, speaking at several Western Ontario Institute meetings, said he was growing Northern Spys, Baldwins, R. I. Greenings, and Golden Russets for winter fruit, and if he discarded one it would be the Russet. Editor.]



"GOLD ELSIE'S RIDE."

BY MRS. E. M. JONES,

AUTHOR OF "DAIRYING FOR PROFIT."

(Registered in accordance with the Copyright Act.)

Such a lovely face, and yet so sad a one, as she sat alone in a wide, cool room, of her country home. Hark! a quick shutting door, and rapid feet running along the hall.

"My dearie, my dearie, where are you?" and in flies the wildest and sweetest little figure that ever blessed a mother's eyes.

Like a great burst of sunshine, sweeps the mother love over Henrietta's face.

"My dearie," cried the little, panting figure, now leaning on her lap, "do come out; I can't play without you; I had to come right in and look for you."

"Why, Elsie," said the mother, laughing, "you are like a little chicken running after an old hen."

"So I am," cried the child, "and I must keep close to you all the time."

I don't think there were ever such friends as this mother and child.

Henrietta was a splendid horsewoman, and perhaps it was her riding that first attracted John Travers. Certain it is, that when her father died, leaving her helpless and penniless, he urged his suit again and again, till at last she accepted the refuge offered her in the jockey's home; for he was a jockey if ever there was one. A gentleman by birth, but so fond of horses that they kept him poor, while he would back them to do anything under the sun.

Gold Elsie the little one was always called, from her sunny hair that was like a glory around her, while her wonderful eyes were like stares in a summer sky. She strolled with her mother across the lawn, where a large, handsome man was leaning over the gate. Suddenly he started, as a man on a powerful chestnut horse pulled sharply up.

"I got that mare home this morning, Benton," he called to the rider. "Come in and have a look at her."

"What, the black four-year-old? Fact, I wouldn't miss seeing her for a good deal. If she's all you think her, Travers, she is a good one, and no mistake."

"She's all I think her, and more, too," said Travers. "Here are my wife and Elsie,—we must get them to come round and have a look at her, too, for Henrietta's as good a judge as either of us."

In a few minutes they were all assembled in a large, beautifully-kept stable-yard, with a few seats ranged at one side, and a leaping-bar, in a paddock, beyond.

"Take care! take care! By jove, she'll break someone's neck yet!" cried Travers, as, with a bound like a deer, a jet black mare stood among them, quivering in every limb. Exclamations of pleasure and surprise burst from all around; and well they might, for the mare was beautiful indeed. Her skin shone like black satin, her crest was proudly arched, and her splendid shoulder: small, perfect head; powerful quarters, and flat, clean legs, called forth unqualified approval from the keen-eyed judges who scrutinized every movement.

"What'll you take for her, Travers?" said Benton, at length.

"Take!" cried Travers, "I wouldn't put a price upon her. Why, man, I've had my eye on her ever since she was foaled, and been at my wit's end to keep her dark. I didn't want to buy her before she was broken, for I am so little at home to see to her; but I was afraid she would be picked up by someone else, so I went out to Johnston's yesterday and settled it."

"I'm afraid," said Benton, "you'll have some trouble in breaking her."

The groom was now leading her up and down the yard; but the quick, nervous movement of her little ears, the tossing of her head, and the restless eye, all showed her to be high-strung to the verge of wildness.

"When I said broke," said Travers, "I meant to harness; she is already broken to the saddle, and as gentle as a lamb. Clap on the saddle, George," he called out to the groom, "and take her over the bar."

The man obeyed, and in a few minutes was cantering the mare along the smooth, short turf. Over the bar she went, like a bird, again and again—no thought of refusing, but growing more and more excited as she warmed up to her work.

"That will do, George; you may take her in. And, I say," cried he, "you may bring out the pony."

"Pony!" cried Elsie, who, with her mother, had been silently looking on, at a safe distance. "Pony! what pony?"

"A pony for any little girl that can ride," said her father; "that can sit her horse like a woman, and even go over the leaping-bar."

"Over the bar! Why, how old are you, Elsie?" said Mr. Benton.

"Ten," said Elsie,—"ten past," as she hopped up and down by her mother's side.

"Ten; why, you must come over and stay a few days at my house, with Jeannie. She has a pony and a little carriage, all of her own, and you and she would have great fun. When will you come?"

For a moment the child looked pleased, but only for a moment. Then, holding her mother's hand caressingly against her own velvet cheek, she said, simply, "I couldn't leave my dearie."

Both gentlemen laughed, though a shade of annoyance crossed Travers' face; but at that moment the pony trotted out of the stable, with the groom running beside her.

"Oh! the cunningest, sweetest, dearest little love!" cried Elsie. "Oh! is she for me? Now, mammy, you can have Joker all to yourself, and we will go out riding together. How good of you to buy her for me, papa—but what an odd little thing! I think it's the funniest, funniest pony I ever did see."

Funny it was, sure enough,—a tiny Indian pony; the darkest possible brown—nearly black, with a silvery-gray mane and tail.

After all praise had been exhausted, and the pony fed and caressed, to the content of even a pony's heart, they all returned to the house.

"I'll tell you what, Benton," said Travers, "if you'll stay and dine with me, I'll go into town, and we'll take the night express for the races at H—"

And so it happened that night that Elsie and Henrietta were all alone. The mother sat quietly knitting, and Elsie lay on the rug, looking into the fire.

"What are you thinking of, mammy?" asked the little one at length.

"Thinking that my darling is too grand to ride about in one of her mother's old skirts, now that she has a horse of her own."

"What do you mean?" asked Elsie, sitting up.

"I mean that I must make you a dear little habit; so get out all our old Harpers, and let us choose what it is to be like."

Oh! what fun there was in that choosing. First, a little pleated waist was the thing, and then it was set aside; then another pattern was fixed upon, only to be rejected; and, at last, when they went chattering up to bed, the great question was still as far from being decided as ever.

Soon all was darkness and quiet, and Gold Elsie lay curled up, soft and warm, in her mother's arms. The child was nearly asleep, and Henrietta just dozing off, when suddenly the sweet little voice broke out again:

"Make it a basque, dearie."

Henrietta could not speak for laughing.

"With tails," added Elsie; "do, mammy!" and then they both went off into fresh fits of laughter at the child's absurdity, till at last Elsie fell fast asleep—to dream of a basque—"with tails."

PART II.

A basque with tails, it was—sure enough. Early the next morning, Elsie was going the usual rounds with her mother—out to the dairy, skimming the sweet, rich cream, and getting ready the milk for the little Jersey calf. Then, into the pretty breakfast room, to do justice to the nice breakfast old Sally had provided.

Out again, to feed the chickens, and gather the eggs; into the kitchen, still trotting by her mother's side, to give orders for the day, and at last, when all was done, driving into town, with "Joker," in the phaeton, to make the important purchase.

Such fussing, and choosing, and fun, till the habit was bought at last, and they were safely home; and, then, for the next two days, very little was seen of Elsie out of doors. How close she stayed by her mother's side, while Henrietta cut and basted and fitted, and basted again, with swift and skillful fingers.

The second afternoon was the most perfect, glorious day in early spring. The sky was purest, softest blue; the trees were a sheath of snowy blossoms that scented the air, and kept dropping noiselessly down upon the fresh, green grass, while every branch was musical with birds.

And the great work of art was complete at last.

The little basque, of dark blue serge, fitted to perfection, and buttoned up to the throat with little gilded buttons that were the pride of Elsie's heart, while the same pretty buttons were seen on the sleeves, and adorned the coveted "tails" behind. Collar and cuffs were of fine white linen, while the tiny cravat bow was of a shade lighter blue than the habit, and matched the ribbon that tied up the golden hair. A hat of navy blue felt, with a cock's feather stuck in the band, completed the cunning little outfit.

No wonder the mother's eyes glistened with pleasure and pride, as they rested on her darling, for even George, when he brought round the horses, stood still with surprise and admiration at sight of the little figure.

Many were the eyes that followed the pair that day, as they rode slowly up the village street in the slanting rays of the declining sun; many the pleasant greetings that were uttered by friendly lips; many the fervent good wish that went up for the mother and child—beloved by all.

How that summer passed, neither Henrietta nor Elsie could have told you. It seemed like one long, golden dream of delight, and they knew not which were pleasanter—the rides in the leafy, dewy spring mornings, or bright afternoons, the after-noon tea canters, when the days got too warm to ride till evening, or, later on, the days in the glorious autumn woods.

The days in the woods, when the nuts were dropping, when the scarlet and brown leaves rustled under the horses' feet, and the squirrels chirred and chattered from tree to tree.

And then there never, never was such a pony as Gretchen. So docile, and yet so spirited, and full of fun, with just the easiest canter you ever saw.

No wonder the summer slipped quickly away, and was gone—all too soon; and already there were talks, by the evening firelight, of a little sleigh, with robes, a tiny set of bells, and miniature harness.

And, in all the projects and plans, Elsie was to go nowhere without her "dearie."

All summer Elsie's father had been away, but in October he came home, and was not a little proud and pleased at all he heard about Elsie's riding.

One afternoon, after looking everywhere for the child, he heard her merry chatter in old Sally's domain, and, coming in, he found her sitting on a corner of the kitchen table, where Henrietta was making pies.

"What are they to be, dearie,—peach pies, or apple?"

"Which do you like best, Elsie?" asked her mother.

"Oh, peach pies!" said Elsie; don't you, Mammy?"

Henrietta covered a plate with paste, and then, lifting it on her hand, passed a sharp knife round the outside, and a ragged circle of paste fell down on her wrist.

"What a funny bracelet," cried Elsie. "Isn't it, papa? Give it to me, dearie,—do; I want to make myself one little pie; oh! ever so much."

So Elsie set to work, rolling, and patting, and cutting; her mother filled the little pie with rich, juicy peaches, and then Elsie covered it, and trimmed off the edges, just as her mother had done.

Then she pricked it, and pricked it, till it was nearly as full of holes as a sieve, and then she pinched and crimped the edges, and declared it was the most gorgeous pie ever seen in the world.

Now, for the baking; but here her father stopped her.

"Couldn't you leave that to Sallie, Elsie, and come out for a ride on horseback? I have hardly seen you in your habit yet."

"Oh, yes!" cried Elsie, jumping up, and raising a cloud of flour. "Come, dearie, and let us all go for a ride."

"In five minutes," said Henrietta; but just at that moment a scream of distress was heard from the outer kitchen, and, running out, they found poor Sally had scalded her hand, so badly as to be quite incapable of getting dinner.

What was to be done? Henrietta had to give up her ride; first, see to old Sally's wants, and make her as comfortable as might be in her room up-stairs, and then take her place in the kitchen.

All Elsie's pleasure was gone now, and she would far rather have stayed with her mother, but Henrietta softly hushed her up, and explained how angry her father would be at such a thing.

"Good-bye, my dearie—my own dearie," cried the child, running back for the second time, and throwing her arms around her mother, while the golden head was pressed close to the loving breast. "How I wish I might stay and help you."

"Never mind, darling; there is not so very much to do after all. I will soon get through. I'll tell you what—papa is going to dine in town, so you and I will take tea in the kitchen all alone."

Elsie's laugh came back at that, and she looked quite gay and happy again.

"Be careful now, my darling," said the mother, as she settled the folds of the little habit, and walked toward the gate beside the pony, "do be careful, Elsie."

"Indeed I will," said Elsie, and then Travers came riding round from the stables on the black mare—arching her neck, and tossing her head. Gretchen shook her pretty head, too, and started into a canter, while Elsie turned in her saddle, and kept looking back at her mother as long as she could; and Henrietta stood in the road, shading her eyes with her hand, and gazed fondly after the little rider.

Straight and graceful was the pretty little figure, bright the glow of the golden hair. The little habit fluttered in the autumn breeze, the buttons shone and glittered in the sun, and even after the last echo of Gretchen's feet had died away, Henrietta still stood looking up the road.

At last she turned towards the house, but, as she walked slowly up the drive, she seemed still to hear the pony's cantering feet; and, as a sudden breeze swept across the lawn, and stirred the trees, and rustled the fallen leaves, she could almost believe that with it floated back Elsie's laugh again, and the little one's sweet "My dearie."

(TO BE CONTINUED.)

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,—

I am afraid most of us are Gentile enough to take an interest in that (to many women) absorbing question, "Wherewithal shall we be clothed?"

Such is the variety of styles and fashions this spring that we can really wear almost anything most pleasing to ourselves, as long as we are careful to put a very generous share of our dress goods into the manufacture of our sleeves. They still continue to be quite the feature of a gown, and if they fulfil the demands of Dame Fashion, the remainder of our costume will probably pass muster.

All sorts of dressy little capes are to be very much worn this season, in the manufacture of which ribbon and jet enter largely. The latter is used with nearly every color, and the effect is generally very pleasing.

Amongst the spring novelties are velvet blouses—shirts they are called in the English fashion books (black, deep crimson, dark blue, and green, are the favorite colors for street wear); these, worn with a skirt of similar or contrasting shade, look most stylish. Evening blouses of the same material, made in the more delicate shades, have already become very popular.

Orepon goods of all sorts continue in high favor, and deservedly so, for they make up very prettily and wear well; their *uncrushableness* is another quality which makes them popular; and last, but by no mean least, they are very reasonable in price.

For the warmer weather the merchants are already displaying the prettiest of muslins, organdies of the most delicate shade, with floral patterns so lightly printed on them that they look more like the shadow of the flowers than the flowers themselves. Dotted Swiss muslins, either in plain colors or flowered in the daintiest of tints, are also shown in every variety of shade; they make lovely summer frocks for either afternoon or evening wear; in the trimming of the latter, ribbon and lace are used in profusion. The finer qualities of these muslins should be worn over a silk skirt of the same shade, or if that cannot be procured, it is a good plan to have a fine bookmuslin petticoat made, with a deep frill trimmed with lace.

For morning wear, nothing can be prettier than a chambray frock, and they are so delightfully cool and light. If worn carefully, they ought to keep clean the entire season, but as it is a wash-material, most people have them made with a view to their being readily washed and ironed; the gored skirt, round waist, and large sleeves, is preferred by most dressmakers. While we are on the subject of wash-dresses, let me remind you that starching generally spoils the sit and appearance of them, besides making them much more difficult to iron. Fancy collars of every description are much worn, from the high plaited velvet one, for street wear, to the exquisite floral collars, reserved for evening dress. The latter are especially pretty for young people, and very becoming to those with thin necks. Any one with a little taste and ingenuity can make one of these dainty accessories to any costume.

Hats and bonnets are shown in a most bewildering variety of sizes and shapes, and very hard to please must that member of the fair sex be who cannot find one to suit her style of beauty, no matter how unique that style happens to be! To small faces the exquisite little floral bonnets are very becoming; but very ridiculous they look when worn on the head that refuses to be covered with a headgear of twice the size. Equally ridiculous does the short woman look when oppressed by a hat large enough to serve as a sunshade—or as a most effectual screen, if you want to see somebody or something in front of her!

Spring flowers, combined with jet, appear to be the most fashionable trimming, and the hats themselves are of the lightest and airiest description. Many of them are wire frames covered with lace, or a sort of trellis-work of the stems of the flowers, through which the flowers peep in the most natural manner.

MINNIE MAY.

RECIPES.

PUFFETS.

One quart flour, one pint milk, two eggs beaten light, butter size of an egg, three tablespoonfuls sugar, and three teaspoonfuls baking powder.

MAHOGANY CAKE.

One quart milk, three pints flour and four eggs. Beat yolks and whites of the eggs separately. Add the yolks to the milk, stir in the flour, a pinch of salt; beat well; stir in the whites; put into hot gem pans and bake.

LAYER CAKE.

One cup of sugar, piece of butter the size of an egg, half a cup of milk, two eggs, two cups flour, two teaspoonfuls baking powder. Bake as jelly cake.

DATE PUDDING.

One-half pound of dates, one-quarter pound of suet, five ounces brown sugar, half-pound grated bread-crumbs, a little nutmeg, a little salt; mix all together with two well-beaten eggs; put into pudding dish and boil two and a-half hours.

THE QUIET HOUR.

"Who Shall Roll Away the Stone?"

St. Mark: XVI, 3, 4.

What poor weeping ones were saying
Eighteen hundred years ago,
We, the same weak faith betraying,
Say in our sad hours of woe.

Looking at some trouble lying
In the dark and dread unknown,
We too often ask, with sighing,
"Who shall roll away the stone?"

Thus with care our spirits crushing,
When they might from care be free,
And in joyous song out-gushing,
Rise in rapture, Lord, to Thee.

For before the way was ended
Of't we've had with joy to own,
Angels have from heaven descended,
And have rolled away the stone.

Many a storm-cloud sweeping o'er us,
Never pours on us its rain;
Many a grief we see before us,
Never comes to cause us pain.

Of'ttimes in the feared "to-morrow"
Sunshine comes—the cloud has flown!
Ask not, then, in foolish sorrow,
"Who shall roll away the stone?"

Burden not thy soul with sadness;
Make a wiser, better choice;
Drink the wine of life with gladness;
God doth bid thee, "Saint, rejoice!"

In to-day's bright sunlight basking,
Leave to-morrow's cares alone;
Spoil not present joys by asking,
"Who shall roll away the stone?"

[Selected.]

Go Forward.

Sometimes the difficulties in the path of duty seem to be insurmountable. We are tempted to despair, or, like Jonah, rush off in an opposite direction. Does God ever command us to perform impossible tasks? Sometimes it looks like it. Once a great host stood before the Red Sea,—behind was an angry foe. What was to be done? The Lord said: "Wherefore criest thou unto Me? Speak unto the children of Israel that they go forward." Was ever an order more surprising than that? There appeared no possible outlet in that direction. And yet we know that even through the sea the way was easy, and what looked like destruction to Israel proved salvation instead. Again, they stood before a walled city. The command was given to raise a victorious shout and enter the city, "every man straight before him." How could they "enter?" They could not climb the wall. Again the insurmountable barrier was easily overcome by faith, for "with God nothing is impossible."

If we always walked up boldly to the difficult tasks set before us, they would always prove possible, often easy, and sometimes vanish altogether. A word is given us to speak for God. We are too shy, perhaps, or, like Moses, say, "I am not eloquent. . . . I am slow of speech, and of a slow tongue." What of that? Has not God promised to "be with thy mouth, and teach thee what thou shalt say?" Possibly we expect coldness and unkindness in reply. Go Forward! "As thy day so shall thy strength be." How often when a man feared a cold reception to his trembling words for Christ, he has found instead a kindly heart, and broken down the barrier between himself and his brother. How often when we knew the way was blocked by a huge stone of misunderstanding or anger, going forward in faith and hope we find that angel hands have rolled away the stone, and the way is open. The Lord never builds the bridge of faith visibly stretching across the gulf before us. If He gives firm footing for each step that is enough, we can trust Him for the next. If the bridge could be seen it would not be of faith. Faith can conquer countless foes, like Gideon with his three hundred men against the hosts of Midian. "The lions in the way" are chained, but only the man who goes forward finds this out. The mountains can be removed from the path and "cast into the sea" by faith. A way is opened even through the rushing river of Death. "If God be for us, who can be against us?"

If Thou Couldst Know.

I think if thou couldst know,
O soul that will complain,
What lies concealed below
Our burden and our pain;
How just our anguish brings
Nearer those longed for things
We seek for now in vain,—
I think thou wouldst rejoice, and not complain.

I think if thou couldst see,
With thy dim mortal sight,
How meanings, dark to thee,
Are shadows hiding light;
Truth's efforts crossed and vexed,
Life's purpose all perplexed,—
If thou couldst see them right,
I think that they would seem all clear, and wise, and bright.

And yet thou canst not know,
And yet thou canst not see;
Wisdom and light are slow
In poor humanity.
If thou couldst trust, poor soul,
In Him who rules the whole,
Thou wouldst find peace and rest,
Wisdom and light are well—but Trust is best.

—A. A. Proctor.

THE SOCIAL CORNER.

Under this heading, communications relating to the home or any subject of interest will be published and questions answered.

MINNIE MAY.

"M. F."—Your oleander probably wants re-potting in fresh earth. As they require rather a rich soil, mix some fertilizer with it.

Pansy seeds can be sown from September to March. The finest plants are obtained from seeds sown in the autumn, and protected during the winter; these will flower early in the spring. The plants from spring sowing should be planted in a shady border (in fresh soil, enriched with decomposed manure), placed six inches apart.

Carnations thrive best in a light, sandy soil; with the latter should be mixed some fertilizer.

M. M.

"L. M."—The chapping of hands is caused by exposure to cold. You should be careful to protect them well, and always dry thoroughly after putting them in water. Rub them well with vaseline every night, and wear loose kid gloves with the palms cut out. Treated thus, hands will soon heal and become soft and smooth.

M. M.

"FLORIST."—The red spider that infests your plants can only be gotten rid of by frequent and generous applications of water. If you have not a syringe for the purpose, the best plan is to dip the plant into a tub of water.

Heliotropes can be easily propagated from seed, and require no more care than verbenas. Nasturtiums will thrive in almost the poorest spot in the garden, and will produce more and better colored flowers than if in rich soil, which tends to produce too much foliage. They are very showy, easy to raise, and remain in bloom for a long period.

M. M.

"READER."—The ten best books by American writers, selected by vote of the readers of the New York "Critic," are: Emerson's "Essays," Hawthorne's "Scarlet Letter," Longfellow's Poems, Mrs. Stowe's "Uncle Tom's Cabin," Dr. Holmes' "Autocrat of the Breakfast Table," Washington Irving's "Sketch Book," Lowell's Poems, Whittier's Poems, Gen. Wallace's "Ben Hur," and Motley's "Rise of the Dutch Republic."

M. M.

DEAR MINNIE MAY,—I am very glad to see the S. C. prospering so well, and am sure, from the interest every one seems to take, it will continue to do so. Could you tell me what will restore the stiffness to China silk which has been washed? Do you think starch would injure it?

A. P. HAMPTON, Boyne, Ont.

[A solution of gum arabic and water can be safely used on China silk. You may require to experiment a little to obtain the required stiffness. Thin starch might be used on cream or white, if very carefully done.]

Many thanks for your encouraging words.]

DEAR MINNIE MAY,—On reading Mrs. Matthew's cure for insomnia, in the last issue of the ADVOCATE, I remembered one given by Margaret E. Sangster, in the form of a pretty poem, which I inclose, hoping it will please your readers as it did me.

Yours sincerely,
ADA ARMAND,
Pakenham, Ont.

A Watch in the Night.

In the long, dim night, if you cannot sleep,
Don't fall to counting the dreamland sheep;
They follow their leader fast and fain,
Over the hedge in a dizzy train,
But they have no power to drive away
The haunting ghosts of the weary day.

Cease, if you can, from adding lines
Of courtesying figures, sevens and nines,
Sixes, elevens, till by and by,
Like a cloud of notes in a summer sky,
You could brush them away, but they'd backward creep,
And never, never would bring you sleep.

And whoever may bid you, do not say
The verses you learned in your childhood's day,
Over and over, until full fain
You wish you were merely a child again,
With a head that at touch of the pillow knew
The tender dropping of slumber's dew.

But dear, just think of the forest pool,
Where the ferns stand close on the edges cool;
Where the whispering willows bend and lave,
And the lisp is heard of the rippling wave;
Hark to the wind in the pine-tree tops,
To the syllab'd murmur in grove and copse,
Shutting your eyes, drift out to sea,
Where the stars look down and the sails float free,
And the waters will croon you a drowsy tune,
And the lulling of slumber will reach you soon.

Or think, if you will, of the sweet green grass,
Acres and acres where no feet pass;
Of daisies and clover, that over and over
The zephyrs kiss, with the heart of a lover;
Of dunes that are billowy 'neath the sun,
Where the skylark stoops when his song is done.

Or ever you know it unaware
The angel of sleep will find you there,
Will sift his poppies above your head,
And rock you as if in a cradle bed;
And hushing and hushing will hury you deep
In the wonderful, beautiful care of sleep;
And you'll never wake till the new day's dawn,
When the watch of the dark, dull night is gone.

Margaret E. Sangster.

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Just landed and for SALE at ROYAL HOTEL, Woodstock, Ont.

Six German Coach Horses that were exhibited at the Columbian Exhibition.

and won two first prizes, three seconds and one fourth. Each of these horses won honors at the great Exposition, 1893. These are the greatest, truest, and most prepotent carriage horses in the world. Graceful, sweet disposition, high action, fast stepping. Two Royal Belgians, weigh 2,000 pounds each. High nethers and necks, great hearts, deep, well-sprung ribs, always good feet. The soundest draft horses in the world. One of these horses won first prize at the World's Fair, 1893. Come and see eight of the best Stallions that ever landed in Canada.

Address—A. B. HOLBERT, Prop., WOODSTOCK, ONT., or, GREELEY, DEL. CO., IOWA.

CARGILL HERD OF SHORTHORNS.



Stock from imp. bulls and imp. and home-bred cows. Catalogue now in printer's hands. Send for one. H. CARGILL & SON, CARGILL, ONT., 11-y-om

Shorthorns, Shropshires and Berkshires. Having rented one of my farms, I will sell at very much reduced prices, six young Shorthorn bulls; thirty Shropshire ewes, in lamb to imported ram; fifteen ewe lambs; six Berkshire sows, due to farrow in March and April, and two boars, six months' old. All registered and choice quality. W. G. PETTIT, 13-y-om Freeman P. O., Burlington Stn., Q. T. R.

FOR SALE.

A choice lot of Shorthorns—bulls and heifers—of good quality and of the most approved breeding. Show animals a specialty. The accompanying cut represents Fair Queen 2nd, the foundation of my herd. Her produce offered for sale. Come and see us, or write for particulars. JOHN MORGAN & SONS, KERWOOD, ONT. 21-y-om

FOR SALE—Shorthorn Bulls AND SEED OATS.

Seven Shorthorn Bulls of extra quality and breeding, at prices to suit the times. Texas Rust-proof Oat, grown four years in Canada, averaging seventy-five bushels per acre, is reddish in color, large in grain, and generally contains three grains in one chaff. Straw is medium length, and stands well. It is a great stooler, very early, and one of the coming oats for Canada. Price, one to five bushels, \$1.00 per bushel; five to ten, 90 cents; ten and over, 75 cents. Bags free. For particulars write G. A. BRODIE, Bethesda, York Co., Ont. 5-c-om

SHORTHORNS. I have FOR SALE two Shorthorn heifers and two bull calves of fine breeding, fine colors, fine form and carriage, in fine condition, at fine cut prices. Also one or two cows. D. ALEXANDER, BRIGDEN, Lambton Co., Ont. 5-y-o

ADVERTISE IN THE ADVOCATE.

DISPERSION SALE OF High-Bred Scotch Shorthorns

WEDNESDAY, MAY 15th, 1895. At INGLESIDE FARM, Seaforth, Ont., Canada. About one mile from G. T. R. Station.

The Proprietor, having sold his farms, offers for sale by Auction his entire herd, consisting of one Imported Bull, 2 years old; one Imported Bull Calf, 11 months old; 13 Imported females; four Home-bred Bull Calves; six Home-bred females. The imported stock is principally of choice Cruickshank breeding, from the celebrated herds of Wm. Duthie and W. S. Marr, imported for breeding purposes by the proprietor; among them are animals sired by the following celebrated sires: "Strongbow," "Gravesend," "Kean Robin," "Standard Bearer," "William of Orange," and "Pride of Morning." The latter was champion at Aberdeen, 1893, and at the Royal Highland, 1894. This offers a rare opportunity for obtaining first-class show or breeding stock.

CATALOGUES, ETC., ON APPLICATION. Trains arrive from the east, 8.30 a. m., 1.10 p. m., 6.10 p. m., and 9.10 p. m.; from the west, 7.43 a. m., 2.53 p. m., and 5.25 p. m. Also Stage from Brucefield, arriving at Seaforth 11 a. m., waits at Brucefield for arrival of train from London and points south. Sale to commence at 1.30 p. m.

8-b-om D. D. WILSON, SEAFORTH, ONT.

CLYDESDALES AND HACKNEYS



A FEW FIRST-CLASS CLYDESDALE Stallions, Mares & Fillies for sale. Prices to suit the times. Come and see them, or write for prices.

GRAHAM BROS., Clarendon, Ontario. 25 miles east of Toronto, on C. P. R. 4-lf-om

Shorthorn Stock Sale.

THORNCLIFFE STOCK FARM, TORONTO. ROBT. DAVIES, Proprietor.

Entire Herd of Shorthorns will be sold by Public Auction on May 16th, 1895, at 12 o'clock, noon.

Among the Bulls are the celebrated Imp. Cruickshank Bull, Northern Light (57801) =11111= by Standard Bearer (55096), dam Nonpareil 20th (46144); also the celebrated Bow Park Bull, Lord Outhwaite =18787= by Butterfly Duke 10th =14278=, dam Lady Isabel (Imp.) =5156= by Crown Prince (38061); and several young bulls and heifers sired by the above. Also a lot of grandly bred cows in calf. Write for Catalogue. c-om

HORACE N. CROSSLEY, PROPRIETOR OF THE

Sandy Bay Stock Farm, IMPORTER AND BREEDER OF



SHIRES, HACKNEYS, AND COLLIE DOGS. The above stud, though only commenced in 1890, has achieved unparalleled success at all the leading Canadian shows, such as Montreal, Toronto and London, also at the CHICAGO WORLD'S FAIR. The most notable in this stud are, the Shire horse Bravo II, 12835, winner of first at Toronto, Montreal and London, and also beating all Clydes at the latter show in the sweepstakes. Hackney, Fireworks No. 3602, winner at Chicago, Toronto and London. Shires and Hackneys always on hand for sale. For further particulars apply to the Proprietor, ROSSAU, Muskoka. 10-y-om

SPECIAL OFFERINGS AT REDUCED RATES TO THOSE WHO WISH TO

DOUBLE THE BUTTER YIELD OF THEIR HERDS. 6 Jersey bull calves, 2 to 4 months old, bred entirely for GREAT BUTTER YIELD. Sired by bulls whose dams make 17 1-2 to 23 3-4 lbs. Butter a Week. As my fall cows gave an unusual number of bull calves, I have decided to place them within reach of all who want an extra bull for next summer, viz.: \$60 to \$90 each, registered, and express prepaid by me to their destination. MRS. E. M. JONES, Box 324, Brockville, Ont., Can. Mrs. Jones' great book, Dairying for Profit, 30c. by mail. Address, ROBT. Y. BROWN, Agent, Box 324, Brockville, Ontario, Canada. 8-y-om

SHROPSHIRE RAM LAMBS.

We are entirely sold out of yearling Rams, but still have a few Choice Ram Lambs for immediate delivery. Also a fine lot of Ewe Lambs from imported stock. IN YORKSHIRES we are booking orders for choice pigs for spring delivery from 30 breeding sows. We have a few Boar Pigs fit for service, and some nice young Breed-ing Sows. Order early, as from present demands they will not last long. GUERNSEYS—Two choice Bull Calves left, fit for spring service, sired by "Adventurer," winner of 29 1st Prizes in Britain previous to importation. Correspondence solicited and promptly attended to. T. D. McCALLUM, Manager Isaleigh Grange Farm, Danville, Que. 9-y-om

HAWTHORN HERD OF DEEP MILKING SHORTHORNS.

FOR SALE—Young Heifer, in calf, and Heifer Calfes. The Golden Drop Bull, Golden Nugget—1748—by imp. General Booth, 5955. 51333, at head of herd. WM. GRANGER & SON, Londonboro, Ont. 13-y-om

STOCK GOSSIP.

PARK HILL FARM, PETITE COTE. The Ayrshire herd of James Drummond & Sons is headed by Victor 5091, sired by Rob Roy, dam Victoria, which had a record of 10,500 lbs. of milk in one year. He is a very successful show bull, and sire of a lot of very fine stock. The old cow, Viola 3rd, is looking exceedingly well. She is a wonderfully heavy milker, and the dam of a large number of prize winners. This cow will likely appear in the show ring again the coming season. Viola 5th, a daughter of Viola 3rd, was placed first last year in Ottawa in a very strong class. She is likely to take the place of her dam. Maggie Sands 3rd, a most promising two-year-old, won second premium last year in Ottawa. In one stable we noticed seven fine 2 and 3-year-old heifers, which are most promising. They will all be milking this season. Among the yearling heifers Princess of Park Hill, dam Viola 4th, is a most promising heifer, and will likely be heard of later. The balance of the young stock, some 10 or 15, are looking exceptionally well. Nelson of Park Hill, rising two years old, is a large, well proportioned animal, showing good dairy points. As a calf and as a yearling she captured first prizes at all the leading shows, viz., Montreal, Toronto, London, and Ottawa. A young bull, rising one year old, was 1st in Ottawa in a very strong class, and 2nd in Quebec. There is also a very fine young calf about nine months old.

ASHTON GRANGE FARM.

Wm. Tait, St. Laurent, P.Q., is the breeder of large Yorkshires. The herd is a most excellent, uniform lot, and is headed by Ashton Hero 1068, Prince of Isaleigh 548, and Oak Lodge Grandeur 1798, which are all proving to be good sires. Prince of Isaleigh has plenty of size, good length, with broad back and deep sides. There are twenty breeding sows in the herd and are a very uniform lot. Jessie 1230, imp., is a good, lengthy, deep sow, and is raising a nice litter of pigs. Village Girl 1232, imp., bred by Saunders Sponcer, is a good, smooth, all round animal just lately farrowed. Maplewood Princess 788 is descended from Walker Jones strain. She has proved to be a very excellent breeder, many of which have won leading prizes. The uniformity of this herd was particularly striking at the time of our visit.

BROOK HILL AYRSHIRES AND YORKSHIRES.

Brook Hill, the property of W. F. & J. A. Stevens, Trout River, is situated on the Trout River, a few miles west from Huntington. It comprises 250 acres, splendidly adapted for mixed farming. There are two living springs running across the farm. The herd of 50 Ayrshires is headed by Uncle Sam 6874, sired by Byron Kenfrew Mansures 5632, dam Nellie Osborne 5356. He is a very promising young bull, and should prove a good sire. He is of a beautiful light color, has a good shoulder and straight upper and under lines. Fedora 5532, sire Golden Guinea 4451, dam Lady Dufferin 3rd 4745, is a wonderful performer at the fair. She has raised four calves and has never been dry before this winter since she first calved. Her record is 45 to 50 lbs. per day. She has also proved to be a first class stock producer. Heather Queen 4746 is a good all-round cow, having an excellent udder with large teats, and is an easy milker. She has given as high as 50 lbs. per day. She was sired by Duke of Argyle 2921, dam Pride of Brook Hill 2913. Nettie 2nd 4747, by Duke of Argyle 2921, by Dowedrop 2914, is, perhaps, the heaviest milker in the herd. She has given 56 lbs. per day and will carry her milk twelve months in the year. Hazel 5825, a four-year-old, promises to breed well, and is a copious milker. Duchess of Fyfe is a very promising two-year-old, as well as her mate, Minnie May. Geraldine is a light colored, nice straight heifer. Among the female calves Nancy Hanks is specially promising as well as a number of others, both males and females. The demand the last season was good in Quebec, Maritime Provinces, Ontario, also the United States. The average income from each cow for the past three years has been \$65 per head; \$56 is derived from butter and the balance in calves and pigs. This firm is breeding large Yorkshire hogs. The foundation stock is from the herds of Messrs. Joseph Featherstone and Wm. Goodger. Purity 1117 was bred by Joseph Featherstone, and Jewel Boy 1421 was bred by J. C. Mair, Howick, P.Q. Holywell Purity 1291 is from Mr. Featherstone's herd. The balance of the brood sows were bred on the farm.

SHORTHORN BULLS

3 VERY PROMISING BULLS FIT FOR SERVICE. For particulars apply to

CHARLES CALDER, Brooklin, Ont. 7-c-om

FOR SALE AT BARGAINS ..

Six Durham Bulls, fit for service, the get of Daisy Chief 13674; also a few Berkshire Pigs, both sexes, and sows due to pig in April. 12-2-y-om A. J. C. SHAW & SONS, Thamesville.

MAPLE HILL HOLSTEIN-FRIESIANS.

FOR SALE—Bull calf from Sept. 1st, 1894; sire Artis Aggie Prince, whose full sister gave 50 lbs. 1 oz. milk in a day at two years; dam Netherland Blanche, first prize yearling heifer at the last Toronto Industrial, and a fine milker. Calf is three-fourths black, very straight, square and blocky. Prices very reasonable. G. W. CLEMONS, ST. GEORGE, ONT. 11-y-om

NOTICE.

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

We call attention to the advertisement of the London Mutual Fire Insurance Company of Canada in this issue. The able and industrial directorate, the extensive agricultural patronage, which is annually growing, and the promptness with which claims are settled, make it one of the most desirable companies for a farmer to insure in. Read their advertisement carefully, and write the Secretary, D. C. Macdonald, 476 Richmond St., London, for terms, etc.

OF INTEREST TO BREEDERS.

In a few weeks horses and cattle will be put on grass, and the greatest care is necessary to prevent the sudden change of diet having very serious effects. Dick's Blood Purifier tones up the whole system, and the animal goes on thriving instead of being set back by a change.

SHORT JOURNEYS ON A LONG ROAD

Is the characteristic title of a profusely illustrated book containing over one hundred pages of charmingly written descriptions of summer resorts in the country north and west of Chicago. The reading matter is new, the illustrations are new, and the information therein will be new to almost every one. A copy of "Short Journeys on a Long Road" will be sent free to anyone who will enclose ten cents (to pay postage) to Geo. H. HEAFFORD, General Passenger Agent Chicago, Milwaukee and St. Paul Railway, Chicago, Ill.

A MODEL PAINT FACTORY.

We recently had the pleasure of visiting the manufacturing establishment on Frontenac St. of Messrs. A. Ramsay & Son, Paint, Color, and Varnish manufacturers, of Montreal, and were surprised at its extent and completeness, equipped, as it is, with all the most perfect modern appliances for the production of their various manufactures. This firm has been in existence for over fifty years, and the high reputation which their goods have achieved throughout the Dominion is a strong testimony to the care which they manifest in producing first-class articles in the various lines which they put upon the market. One of their leading productions is the "Unicorn" brand of prepared or ready-mixed paints, of which they are now turning out and selling over a ton a day, in great variety of shades or tints, and which are so easy of application that almost any member of the household can beautify their homes at little expense. This is a great desideratum in country districts, and farmers need have no excuse for unsightly premises, when a coat or two of Ramsay's Unicorn mixed paint can be so easily applied, and so beautifully and preserve their property. They also manufacture a cheaper grade of mixed paints suitable for barns and fences, which are conveniently put up in five-gallon buckets. Another of their productions is printing and lithographic inks, which they are now manufacturing and supplying to most of the leading establishments in the Dominion. The quality of their inks is up to the high standard of all their goods, and it is a satisfaction to be enabled to procure supplies in this line in the home market instead of importing them. We may remark that the "Advocate" is printed with ink supplied by A. Ramsay & Son. The office and warehouse of the firm is at 37 to 41 Reccollet Street, the paint, color, and printing ink factory, at 141 to 151 Frontenac St., and the varnish factory at 106 William Street, Montreal.

STOCK GOSSIP.

AYRSHIRES AT ST. ANNE DE BELLEVUE.

The herd of Robert Reford's Ayrshires, on Tredonrock Stock Farm, is headed by Glencairn 3rd, No. 2892, imported. His weight at the present time (four years old) is 1,600 lbs. He has a smooth, clean head, shoulder and neck, a perfect wedge-shaped shoulder, level back and loins; well-sprung, deep ribs; broad, deep flank; great, wide chest, showing strong constitution. He has all essential dairy points, and is covered with a heavy coat of long, silky hair. Color, white with red marking on head and neck.

The cows, Derby of Bogside, imported by the late Tom Brown, and Annie Bercheskie, imported, are both very fine specimens of the breed. Annie Bercheskie is due to calve in September. We hope to see her out this season at the shows. She dropped her last calf April last, and at the present is milking over three gallons per day. She carries a well-shaped bag, high up behind and well under the belly. Fly, a very large, fine cow, newly calved, has a beautiful skin, teats and udder. Tillie and White Lass are strong, young cows, showing good points, are due to calve in April. White Floss, the 1st prize two-year-old in Chicago, has gone the right way and will be seen in the showing this fall; due to calve the early part of September.

Jessie Osborne, imp., is one of the sweet ones of the herd and a right good one. Maggie is also a typical Ayrshire and a wonderfully heavy milker, with milk veins extending well forward. Space will not admit of full mention of the balance. We noticed three very fine September bull calves in one box-stall, and also a large number of very fine young heifer calves, all from Glencairn 3rd.

BOOK TABLE.

The Western New York Horticultural Society have recently issued their fortieth annual report. Ever since this Society's inception it has made a steady advance in number of members and beneficial influence. The report just issued will deservedly engage the serious attention of experienced fruit growers and gardeners. It also contains much that is helpful to beginners in horticultural operations. The efficient Secretary, John Hall, Trust Buildings, Rochester, N. Y., is the man to address for a copy of the report.

Volume XVII. of the Clydesdale Stud Book of Great Britain has been recently received from the Secretary, Arch. McNeillage, Glasgow. It contains pedigrees of mares having produce previous to 30th September, 1894; and stallions foaled before 1st January, 1894, with four appendices, and a list of the present members of the Clydesdale Horse Society. The mares registered number from 12,453 to 12,379; stallions, Nos. 9,871 to 10,021. This volume, like all previous ones, is well bound and conveniently compiled.

**WILL SELL
HOLSTEIN BULL CALVES**

—AT—
\$15.00 Each

During months of March and April, if taken before three weeks of age.

Write Early if Wanted.

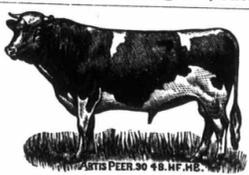
Could not supply the demand last year.

F. A. FOLGER,

5-d-om Rideau Farm, Kingston, Ont.

**SUNNYSIDE
HOLSTEIN-
FRIESIANS**

Choice animals, either sex, all ages, for sale at any time. Correspondence solicited. Address



McDUFFEE & BUTTERS, Stanstead, P. Q.
16-y-om

GEM HERD HOLSTEINS

FOR SALE BY ELLIS BROTHERS,
BEDFORD PARK P. O., ONT.

Three miles north of Toronto, on Yonge Street. Electric cars pass our gate. Inspection invited. Correspondence solicited.
7-y-om

DOMINION PRIZE HERD OF AYRSHIRES



We have the oldest established, largest and best herd of Ayrshires in Canada. Choice young stock for sale at liberal prices. Satisfaction guaranteed. **JAMES DRUMMOND & SONS, Petite Cote, Montreal, P. Q.** 8-2-y-om

DANIEL DRUMMOND

BURNSIDE FARM,
Petite Cote, P. Q.,
BREEDER OF AYRSHIRE CATTLE.
16-2-y-om



Champion Dairy Herd of Ayrshires at various government tests. Prize winners at the World's Columbian Exposition, Chicago. Write **MESSRS. ROBERTSON & NESS, Howick, Que** 19-y-om

FOR SALE.—A number of pure-bred Ayrshire calves, all from deep milkers. Address, **F. W. TAYLOR, Wellman's Corners, Ont.** 7-b-om

AYRSHIRE CALVES FOR SALE
At \$12 each, from deep milking strains, if taken away before three weeks of age. Also an Ayrshire bull, coming two years old. Pedigrees furnished. **H. GEORGE & SONS, 8-b-om CRAMPTON, ONT., Middlesex Co.**

Prize-Winning AYRSHIRES FOR SALE.



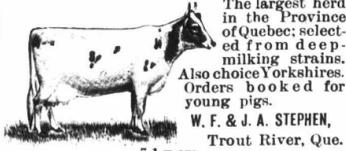
I have at present one of the largest and best herds in Ontario, which has been very successful in the prize ring. They are deep milkers and of a large size. Bulls, cows and heifers for sale always on hand.
JAS. McCORMICK & SON,
ROCKTON, ONT. 20-2-y-om

GREENHOUSE FARM

Ayrshire Cattle and Suffolk Sheep. I offer several Bull Calves, from 1 to 3 months old, rare good ones—from deep milkers and their progeny, whose sires and dams have won highest honors, and, for butter and milk combined, are, without any doubt, the best Ayrshire cattle ever imported to this country. A few 2-shear Suffolk Ewes and Ram Lambs, All at right prices. Write or come and see them, **Corwin, C. P. R., 2 miles; Guelph, G. T., 7 miles.**
W. B. COCKBURN,
17-y-om Greenhouse Farm, ABERFOYLE, ONT.

ADVERTISE IN THE ADVOCATE

AYRSHIRES - AND - YORKSHIRES.



The largest herd in the Province of Quebec; selected from deep milking strains. Also choice Yorkshires. Orders booked for young pigs.
W. F. & J. A. STEPHEN,
7-1-y-om Trout River, Que.

**WE HAVE A FINE STOCK OF
Young Bulls for Sale.**
Four two-year-olds, one one-year-old, one six months old, and ten under six months old. One of the two-year-olds is Leonard Meadowside, first prize at Chicago. He is sire of most of the calves; the rest of them are from Stanley.

Prices to suit the times.
J. YUILL & SONS,
7-2-f-om CARLETON PLACE, ONT.

The GLEN STOCK FARM AYRSHIRES

We have 6 young Bulls that will be fit for service in the Spring. They are good individuals, are well bred, and will be sold on reasonable terms. We have also a number of imported and home-bred Shropshire Ewes and Ewe Lambs for sale at very low prices.
WHITESIDE BROS., Innerkip, Ont 7-y-om

FOR SALE.

The fine Guernsey Bull, "Roseberry Duke," H. R. No. 3408, aged 4 years, winner of first prizes at Sherbrooke, Montreal, and Ottawa. Also a pair of thoroughbred Yorkshire pigs, male and female, farrowed 2nd and 3rd April, 1894.
Apply to **Box 34, COWANSVILLE, P. Q.** 8-b-o

GUERNSEYS

Having two stock bulls, will sell either of them; grand stock getters; first-class animals.
YORKSHIRES.
Boars fit for service; sows in farrow, and a grand lot of spring pigs.

W. H. & C. H. McNish,
20-y-om LYN, ONT.

JOHN YEAGER,

OSAGE AVENUE, SIMCOE, P. O.,
Breeder of Choice Jerseys, Berkshire Swine, and Scotch Collie Dogs.
Correspondence solicited. 6-2-y-o

JERSEY HURST HERD OF JERSEYS.

ROBERT REESOR, LOCUST HILL, ONT.—Choice Jerseys for sale at all times; grand individuals of the St. Lambert and St. Helier strains. Locust Hill is 20 miles from Toronto, on C. P. R. 6-2-y-o

ARKLAN STOCK FARM

(Adjoining the Town of Carleton Place.)
JERSEY CATTLE
Herd headed by Carlo of Glen Duart 1867, A. J. C. C., champion Jersey bull whenever exhibited. Young stock from prize-winning animals for sale, out of deep milking strains. Correspondence solicited and inspection invited.

A. C. BURGESS,
Carleton Place, 7-y-om Ontario.

Pure St. Lamberts

YOUNG BULLS fit for service, and bull calves sired by Jolie of St. Lambert 3rd's Son, 2731, and Lady Fawn of St. Anne's Son, 2703. The get of these two bulls have swept everything before them at the Toronto, London, Ottawa and Quebec Shows of 1893-4. Dams of the young bulls are daughters and granddaughters of

The Famous St. Lambert Cows,

Jolie of St. L., Pet of St. L., and Lady Fawn of St. A. Farmers! If you wish to double the butter yield of your herd, buy a pure St. Lambert Jersey bull. The St. Lamberts, for size, constitution, and wonderful production of milk and butter, lead all other strains known.

PRICES VERY LOW.

Apply to
W. A. REBURN,
St. Anne de Bellevue, P. Q.

GLEN ROUGE JERSEYS

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

WILLOW GROVE HERD OF JERSEYS.

Sweepstake herd of 1894. Stock from imp. bulls and imp. and home-bred dams of St. Lambert, St. Helier, and Signal strains. Young of splendid individuality always for sale; also Plymouth Fowls. Eggs, \$1.00 per sitting. Highfield St., G. H. T. R.
6-2-y-om **J. H. SMITH & SON.**

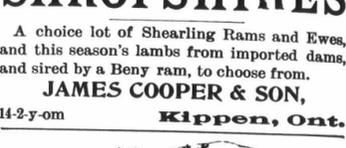
JERSEY-CATTLE

Of the heaviest milking strains. One of the largest herds in Canada; bred closely to the great dairy cow at Chicago, also the famous two-year-old. Sires of both were sold from this herd. Also Welsh Blood Ponies for ladies and children's driving. Stock for sale always on hand. **Geo. SMITH & SON, Grimsby, Ontario.** 8-y-om

You want a **JERSEY COW** or Heifer, or Calf. I have what you want. My standard: "Individual merit by inheritance." We ship to order and guarantee as represented. Come and see, or address **J. C. SNELL, EDMONTON, ONT.** 8-b-om R. R. Station, Brampton.

SHROPSHIRE

A choice lot of Shearling Rams and Ewes, and this season's lambs from imported dams, and sired by a Beny ram, to choose from.
JAMES COOPER & SON,
14-2-y-om **Kippen, Ont.**



Leicestershire Tick & Vermin Destroyer.

FOR SHEEP, CATTLE AND HORSES. It effectually destroys Ticks, Lice, Worms or Grub, to which sheep, horses and cattle are subject, and enables the animal to thrive. It will be found far superior to other preparations used for the similar purpose. The proprietors will guarantee perfect success when used according to directions, as will be found on each box. It prevents scurf and scab, and renders the wool bright and clear. It is put up in tin boxes, price 30 cents each. One box is sufficient for twenty ordinary sized sheep. Sold by Druggists and Grocers. Manufactured by

G. C. BRIGGS & SONS,

31 KING ST. West, Hamilton, Ont. 2-j-o

MYERS' ROYAL HOG POWDERS

FOR CHOLERA & ALL OTHER DISEASES
4-y-om **MYERS & CO., Toronto, Canada.**

Specialty of Improved Large Yorkshire Hogs



The largest and most successful prize-winning herd in Canada. In the management of my herd I have endeavored to produce what the market demands, combining the most profitable type for the feeder. Extra lot of in-pig sows for sale cheap. Am booking orders for spring pigs suitable for exhibition or breeding purposes. All stock guaranteed as described.
J. E. BRETHER, Burford, Brant Co., Ont. 3-y-om

LARGE IMPROVED YORKSHIRE PIGS

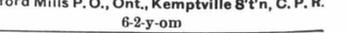
and Holstein Cattle. We breed nothing but the best, and sell cheap, and guarantee satisfaction or no pay. Come and see us, or write for prices and be convinced.
FLETCHER BROTHERS,
Oxford Mills P. O., Ont., Kemptville 8't'n, C. P. R. 6-2-y-om

BREEDERS OF Large Improved Yorkshire Pigs.

Markham Baron, the sweepstake Barrow over all breeds at the Guelph Fat Stock Show, 1892, bred by us. A choice assortment of Pigs now on hand. Only first-class stock shipped to order. **Markham Herd Farm, at Locust Hill, Station. 17-y-om JNO. PIKE & SONS.**

LARGE IMPROVED WHITE YORKSHIRES AND ENGLISH BERKSHIRES

Now ready, boars fit for service; young sows ready to mate, and sows in farrow. Prices reasonable. Pairs supplied not akin. Apply to
WILLIAM COODGER & SON,
Box 160, Woodstock, Ont. 11-y-o



IMPROVED YORKSHIRES.
A few Sows three months old; a litter six weeks old, both from imported stock. Also a pure-bred Bates Princess Bull Calf of milking strain.
WM. COWAN, V. S., Galt, Ont. 9-y-om

O. J. GILROY & SON
Glen Buell, Ont.,
BREEDERS OF
HOLSTEIN-FRIESIAN CATTLE
—ALSO—
Large English Berkshires & Imp. Yorkshire Swine
Bred from imported stock. Personal inspection solicited. 7-y-o

S. COXWORTH, WHITBY, ONT.
Breeder and Importer of Berkshire Hogs and Cotswold Sheep
I am now booking orders for spring delivery. Pairs supplied not akin; all stock guaranteed as described. Inspection of herd solicited. All correspondence promptly attended to.
8-y-om

H. J. DAVIS, Woodstock, Ont., Breeder of Short-horn Cattle, Imp. Large White Yorkshire and Berkshire Swine. Some very fine young bulls of good color and breeding, from 12 to 18 months old, for sale. Also a number of Yorkshire Boars of splendid quality, fit for service, and a good lot of Yorkshire Sows ready to breed. Berkshire Boars of the right stamp fit for service; also sucking pigs of both breeds for sale at moderate prices. Inspection invited, or write for description and prices. 8-y-om

LARGE ENGLISH BERKSHIRES
My herd are imported or bred from imported stock, and have carried winnings at leading shows for years, including sweepstakes over all breeds at last Guelph Fat Stock Show. Pigs of all ages for sale, pairs supplied not akin. 9-y-om
GEO. GREEN, Fairview, Ont.

Large English Berkshires!
J. G. SNELL & BRO., Edmonton, Ontario.
We are now booking orders for young pigs. Have several litters now, and more to follow in Mar. and April. These are by imported Star One, 85 lbs., 1st prize aged boar, Toronto, 1894; Lord Ross, 1st p. yearling boar, Toronto, 1894; Regalia, 5th lbs. at 12 months old, 1st p. boar under a year, Toronto, 1894; Baron Lee 4th, 62 lbs. at 15 mos. We never had so many good sows to breed from as at present. Write for prices. 2-y-om

ISRAEL GRESSMAN, New Dundee, Ont.
—IMPORTER OF—
Large - English - Berkshires
4-y-om

H. GREGG & SONS, INGERSOLL, ONT.
Breeders of Berkshires and Chester White Swine. We have for sale young stock of either sex, and any age, at prices to suit the times. Our original stock of Berks are from the herds of Mr. Green, Fairview, and J. G. Snell, Edmonton.
8-2-y-o Correspondence solicited.

Large English Berkshires.
Young Boars and Sows of Oct. litters. Spring pigs to go at eight weeks old, got by three first-class imported boars, weighing from 600 lbs. to 850 lbs. Pairs and trios not akin. We ship to order, and guarantee satisfaction. R. R. Station, Brampton.
8-y-om J. C. SNELL, Edmonton, Ont.

OHIO IMPROVED CHESTER WHITES.
My herd are imported or bred from imported stock, and have been winners at the leading shows for years. Pigs of all ages (both sexes) for sale. Pairs supplied not akin. Correspondence solicited. Inspection invited.
D. DeCOURCEY, 4-2-y-om Bornholm.

PINE VIEW HERD!
CHESTER WHITES and BERKSHIRES.
Young Boars fit for service. Young Sows in pig to an Imported Boar. And in fact I can supply any aged pig wanted of the two breeds mentioned at a price in touch with the times. Orders solicited for weanlings; but I am anxious to clear out the older ones in order to make room for sows farrowing next month. For prices and other particulars address, JAMES H. SHAW, Simcoe, Ont. 8-y-om

SIMMERS' RELIABLE SEEDS
ARE EVERYWHERE KNOWN AS THE BEST
WHY RISK POOR ONES WHEN THE BEST COST NO MORE

NEW CHALLENGE WHITE OATS—This variety possesses long upright stout straw, with neat panicle, covered with close set grains, very plump and heavy.—\$1.00 per bushel, two bushels \$1.80, ten bushels \$8.00.—(bags included.)

BLACK JOANETTE OATS.—A good variety of Black Oats, bearing long, well-filled heads.—80c. per bushel, two bushels \$1.50, ten bushels \$7.00.—(bags included.)

PEERLESS WHITE OATS.—As the name implies is an extra choice variety.—\$1.00 per bushel, two bushels \$1.80, ten bushels \$8.00.—(bags included.)

LINCOLN OATS—White.—Immense yielder and excellent for milling purposes.—80c. per bushel, two bushels \$1.50, ten bushels \$7.00.—(bags included.)

NEW CANADIAN BEAUTY PEAS.—\$1.10 per bushel, two bushel \$1.90, ten bushels \$9.50.—(bags included.)

Send for SIMMERS' general Seed Catalogue for 1895—richly illustrated. It describes everything of merit old and new.
Farmers' Special Price List goes with every Catalogue.

J. A. SIMMERS, TORONTO, ONT.

IMPROVED LARGE WHITE YORKSHIRE PIGS for sale, both sexes. These are the finest specimens ever bred in the County of Stanstead.
W. G. TALEBOT, GEORGEVILLE, QUE. 6-y-om

Ontario Central
—Herd of—
Chester Whites and Duroc-Jerseys.
Our Improved Chester White Herd was established eight years ago with first-class animals. Our Duroc-Jersey Herd is of two years' standing. Selection and care have enabled us to lead in both breeds in the show rings of Toronto, London, and Ottawa. Orders placed with us will be attended to with dispatch.
Wm. Butler & Son, Dereham Centre, Ont. 7-y-om

IMPROVED Chester White and Tamworth Swine
Our Improved Chesters have won more Sweepstakes at large exhibitions than all herds of Chesters combined in the Dominion, including Sweepstake Sow over all breeds at Fat Stock Show, Guelph, 94. Tamworths are selected from best breeds in England, and winners of Sweepstakes at Fat Stock Show, Guelph and Ottawa, 1894. 30 Choice Sows bred for spring trade. Orders booked for spring pig in pairs not akin. Reduced rates by express. Send for price list.
7-y-om H. GEORGE & SONS, Crampton, Ont.

RED TAMWORTH BOARS
Ready for service. Nice young sows due to farrow in March. Younger ones all ages.

Stock First-Class and Registered.
Ayrshire Cattle, either sex, all ages. Prices low.
CALDWELL BROS., 2-2-y-o Briery Bank Farm, Orchard P. O., Ont

The Model Tamworth
TAMWORTH SWINE.
Being the introducer of Tamworth swine into Canada, and after a few years' careful breeding, I now offer to the public a choice lot of young pigs, any age under 12 months. My herd is well-known as prize-winners, and all my stock is closely related to noted prize-winners, therefore those who intend purchasing superior stock at reasonable prices will do well to correspond with me before purchasing elsewhere. Correspondence solicited. Visitors welcome.
JOHN BELL, 8-2-b-o Clydesdale Farm, AMHER, ONT.

ISAAC HOLLAND
SPRING GROVE FARM, CULLODEN P. O.
Breeder of Guernsey Cattle and Tamworth Swine. I have for sale a choice two-year-old or a four-year-old Guernsey bull of heavy milking strain. Also young Tamworths, either sex. Correspondence solicited. 8-2-y-o

R. H. HARDING, Thorndale, Ont.
Is offering special bargains for the next thirty days in Chester Sows in farrow, and Boars fit for service, in order to make room for spring litters. 20-y-om

D. McLACHLIN, CRAMPTON, ONTARIO.
Breeder of Poland-China Swine. Stock of all ages for sale at low prices. Ten choice sows bred, and fifty spring pigs to select from. Place your orders early. 8-2-y-om

THE
London Mutual
FIRE INSURANCE COMPANY OF CANADA,
476 RICHMOND ST., LONDON, ONT.
DIRECTORS:
CAPT. THOS. E. ROBSON, Clerk Co. Middlesex (President), Ilderton P. O.
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JOHN GEARY, ex-President of Dairymen's Association, London P. O.
RICHARD GIBSON, President of Dom. Short-horn Breeders' Ass'n, Delaware P. O.
ROBERT McEWEN, Director of Agriculture and Arts Association, Byron P. O.
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THE old reliable "London Mutual," the successful pioneer of Farm Insurance in Canada, continues to do the largest business with the Agricultural community of any two companies combined; and during the year 1894, issued no fewer than 15,962 policies, a number never approached by any other company in the Dominion. It had at risk on the 31st Dec. last, \$45,597,436.62 (chiefly on farm property), and its assets amounted to THREE HUNDRED AND TWENTY-EIGHT THOUSAND DOLLARS available for payments of losses, and, including a re-insurance reserve of \$290,990.91.

FARMERS! Patronize the Company that was established for your benefit, that has brought the cost of insurance within the reach of all, and that has expended nearly THREE MILLIONS OF DOLLARS in providing protection for its members.

Claims for lightning made good, and animals are covered by its Policies from death by lightning. Special terms are offered for the insurance of valuable stock; and farmers can always obtain prompt attention by applying to any of the authorized Agents of the Company, or by addressing the Secretary, London, Ont.

This Company has taken over the Farm business of the "Agricultural of Watertown," and members of that company will be waited upon by our Agents for the renewal of their policies as they fall due. Our Agents are also authorized to take applications for the "Agricultural" for windstorms or tornadoes.
D. C. MACDONALD, Manager.

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

D. McLachlin, Crampton, Ont., advertises in this issue his Poland-Chinas. He reports a large and choicely-bred herd of brood sows and spring pigs. See his new advertisement.

J. C. Snell, Edmonton, Ontario, writes:—"As the signs of better times, we note the constantly increasing enquiries for Jersey cows. The farmers in dairy sections feel that they must have them or get left in the race for profitable dairy work. Quality will tell as surely as blood, and both are sadly deficient in too many herds. A little Jersey milk, like a little leaven, leavens the whole lump. Those who cannot buy a Jersey cow should at least grade up their dairy herds by the use of a registered Jersey bull."

Capt. A. W. Young, Tupperville, Ont.—"The imported S. G. Dorking cockerel, bought of C. J. Daniels, of Toronto, has been reed. in our yards, and is a beauty: expect something handsome from him for our customers this season. Orders for eggs, and inquiries for Poland-Chinas, coming in freely. Latest sales: a sow each, George Wickin and Wm. Wickin, each of Tupperville; still have young boars ready for the spring trade, also a number of choice fall sows, only one sow left bred for May litter. Mortality among spring pigs will reduce the number in our herds, but we hope to make up by quality; and as the sows that lost their pigs during the cold weather are all bred again, it will only postpone their litters a few months."

Mr. Alex. Hume, Burnbrae, writes:—"Our cows are milking and thriving well. They have not been out since December last, when we purchased and erected a windmill, and I am more than pleased with it, both as a labor and time saver, and it also has affected an extra flow of milk by having the water in a trough in cow stable. We have on hand several very fine Ayrshire bull calves, mostly white, and also six good grade heifer calves, which I will sell at a bargain, as our cheese factory has started, and we would like to send all the milk there possible. These calves are all from good individual cows, and I can recommend them to intending purchasers as likely to be extra dairy cows. Our Yorkshires are thriving nicely; have quite a number of young ones to choose from; also a few young sows in farrow. A few very choice sows and boars ready to mate. Can furnish pairs not akin. In calves we can also furnish pairs for breeding."

William Grainger & Son, London, Ont.—"We report the following sales this season: One yearling heifer, Busy Bee 2nd, got by Truce Bearer = 15335-, and bred to Golden Nugget = 17548-, to Wm. Bennington, Maple Lodge Ont.; Hawthorn Duke, to Edmund Caverley, Sine, Ont., and Cherry Brandy, to Glen H. Benson, Port Hope, Ont. (these are two excellent bulls; they have for a granddam 2nd Fair Maid of Hullett = 9047-, with a record of 62 lbs. of milk and 2 5/4-100 lbs. of butter in one day the Chicago dairy test), and also the young bull Lord Bennington, 11 months old, to E. & W. Caister, Tavistock, Ont. He is also a grandson of 2nd Fair Maid of Hullett = 9047-. Our sire = 17548-, by Imp. General Booth, is doing well, and is proving an excellent stock getter. As we have got all our young bulls fit for service sold, enclosed you will find change of advertisement. Wishing your valuable paper every success."

SHORTHORNS AT AMPLE SHADE.
Alighting at Lucknow, on the London, Huron & Bruce R. R., a short drive westward of about two miles brings one to Ample Shade, the fine property of Messrs. E. Gaunt & Sons, St. Helens, Ont., where many fine specimens of the Shorthorn breed are to be seen. A fine flock of Leicester sheep of good quality also form a profitable adjunct to the stock kept on this farm. At the head of the Shorthorn herd is Earl of Moray (16188), a beautiful dark red animal, four years old, by Eclipse (8982), and from the imp. cow Lady Fanny. This bull traces back on sire's side to Mr. Cruickshank's Lavender Family, from which came the great show bull Baron Booth of Lancaster; many of the antecedents of Earl of Moray were noted prize winners in the old country. We were very much taken with a young bull, eighteen months old, by Earl of Moray, and from Cyrene (23615), a very even, stylish bull, in color a dark cherry red; he resembles his sire very much in conformation, and should head any herd satisfactorily, as also should the fifteen months' old roan bull in the next box, also by Earl of Moray. Dan Lady Lovell = 15926-, a very square, deep bodied animal, very growthy, and every appearance of making a very large, fine bull. These two bulls trace to the Fashion Family, and we considered them extra good. Among the cows Lady Lovell (15926), Starlight (19274), Eva Buckingham (14666), and Ethel Buckingham (15924), are well worthy of special mention, being large, even fleshed cows and grand breeders. We were shown two young heifers, a red and a roan, about fifteen months old, which, on looking over, we were almost at a loss to fault in any point, the roan being, if anything, a little more stylish, and to which we rather gave the preference. They are sired by Earl of Moray, and from the cows Gloria (15925) and Eda Buckingham (19271). The Border Leicesters number some fifty head—a large, even lot, of good quality; among the ram lambs we noticed some very choice ones, very large and grand handlers; the flock is headed by a fine aged sheep, bred by Mr. Kelly, of Shakespeare. The lambs were coming very strong, a large proportion of them being twins. It is a pleasure to look over the well-kept stock at Ample Shade, and visitors will always be made welcome.

NOTICES.
M. Maw, the well-known Winnipeg poultry fancier, has recently issued a very neat catalogue, descriptive of the breeding pens of the several varieties of fowls kept by him. Parties interested should send for one.

The Toronto Salt Works report the sales of four carloads of lump rock salt during March. They are now shipping this salt into twenty-three counties of Ontario, and into the provinces of Quebec and Nova Scotia, and to the Northwest Territories. It is only necessary for a stockman to use rock salt to be convinced of its merit.

R. B. McMULLIN, GOLDSMITH, ONT.
 Importer, Breeder and Shipper of
REGISTERED POLAND-CHINA SWINE
 Stock of all ages for sale at low prices. All stock guaranteed as represented. Write for prices. Registered pedigrees furnished. Mention Advocate.
 21-2-y-om

THE OXFORD HEND OF REGISTERED POLAND CHINAS
 Our herd won all the sweepstakes, diplomas and herd prizes, and 22 out of 26 first prizes, at the three largest fairs in Canada, in 1894. Our herd is headed by Darkness Quality the winner of the first prize in his class, over 41 entries, at the World's Fair, in Chicago, in 1893. Our stock is large in size, and fine in quality, and are well adapted for the Canadian trade. Young stock for sale at all times. Prices reasonable. Address
 15-y-om **W. & H. JONES, Mount Elgin, Ont.**

CANADA WILKES.
 Pure Young Stock of all Ages For Sale.
 Silver Gray Dorkings, W. F. B. Spanish, Brown and W. Leghorns, L. Brahmas, Partridge Cochins and Silver Hamburgs; a few cockerels yet for sale of B. Leghorns and B. Spanish. Eggs for setting after April 1st, 13 for \$1.30 for \$2. Send for illustrated catalogue of Polands and poultry. Correspondence solicited. **CAPT. A. W. YOUNG, Tupperville, Ont.**
 17-y-om

DURCO-JERSEY SWINE
 For first class Durco-Jersey pigs of either sex and all ages, young sows bred for first litters, and boars fit for service.—address, **T. A. F. BROS., Ridgeway, P. S.**—All stock guaranteed as represented.
 2-2-y-om

IMPROVED SUFFOLK SWINE, THOROUGH-BRED HORSES, DURHAM CATTLE AND SOUTHDOWN SHEEP.
 A grand lot of Suffolk Pigs, all ages, for sale at prices to suit the times. **A. FRANK & SONS, The Grange, four miles from Cheltenham Stn., C. P. R. & G. T. R.**
 2-2-y-om

DR. LEAVITT'S NEW CHAMPION DEHORNING CLIPPER
 The quickest working and the strongest clipper made.
 Every Pair Warranted
 For list, etc., address,
S. S. KIMBALL, 577 Craig St., MONTREAL.
 7-y-om

PURE -- WATER -- FROM -- ARTESIAN -- WELLS.
 Write for particulars to **WILLIAM SHARP, 134 Hamburg Ave., Toronto, Ont.** Practical Well Driller.
 4-2-y-0

I AM BREEDING FROM CHOICE YARDS of imported birds of Black Minorcas (from England this year), Derbyshire Red Caps, Brown and White Leghorns, Light Brahmas, and Brd. Plymouth Rocks, W. Wyandottes. Grand birds. Eggs \$1.00 per sitting. A hatch guaranteed. Some choice birds for sale. **W. L. BROWN, London West, Ont.** 7-c-0

J. WEAVER & SON, CHATHAM, ONT. breeders and shippers of White and Partridge Cochins, W. & Brown Leghorns, Plymouth Rocks, Houdans, Lt. Brahmas, White Wyandotte, Sumatra and Indian Games. Large Lt. Brahma Cockerels, \$1 apiece. Eggs \$1 per 13; reduction on larger orders from prize-winning stock. Write us.
 6-2-c-0

FORT ROUCE POULTRY YARDS
 Eggs for hatching from Barred and White Plymouth Rocks; Gold, Silver, White and Black Wyandottes; Brown Leghorns; Langshans; White Minorcas; Mottled Javas; Light Brahmas; Game Bantams; Bronze Turkeys, and Pekin, and Rouen Ducks. Eggs, \$2 per sitting of 15. A few choice birds, for sale; also Pigeons and Rabbits. My breeding pens contain upwards of 40 prize-winners at the late poultry show.
 Write, **S. LING, WINNIPEG, MAN.**

HAZELTON B. P. ROCKS
 Guaranteed eggs from prize stock; 13 for \$1.50, 25 for \$2.00. Hundred lots at reduced rates. Circulars ready.
 7-b-om **C. W. ECKARDT, Ridgeway, Ont.**

WINNIPEG WHITE LEGHORN POULTRY YARDS
Boyd Avenue.
 At the exhibition of the M. P. A., held in Winnipeg, March 6th, 7th and 8th, the following prizes were awarded to my W. Leghorns: 1st, breeding pen; 1st, hen; 1st, pullet; 1st and 2nd, cockerel. Birds for sale of either sex, \$2.00 and \$3.00 each. Eggs for hatching, \$2.00 for 13; \$3.50 for 26. **W. A. PETTIT, Breeder of Single Comb White Leghorns only.**

FOR SALE Silver Wyandottes and Mammoth Pekin Ducks. Eggs at \$1.00 per 11. My strain of S. Wyandottes have won more prizes at our leading shows than all others combined. My Pekin Ducks are mostly imported, and of great size. **J. E. MEYER, Kossuth, Ont.** 7-f-0

ADVERTISE IN ADVOCATE

EGGS FOR HATCHING, from prize-winning White, Silver and Golden Wyandottes, White and Barred Plymouth Rocks, at only \$1 per nine, or \$1.50 per fifteen. Eggs from Mammoth Bronze Turkeys, 25c. each, or \$3 per 13. Canadian Agent for the celebrated Webster & Hannum Bone Cutter. Send for catalogue to **JOHN J. LENTON, Park Farm, Oshawa, Ont. 22-y-om**

200 BRONZE TURKEYS.
 Bred from 42 to 46 lb. Toms and 18 to 24 lb. Hens. 500 SELECTED BREEDING COCKERELS. B. and W. P. Rocks, W. and S. Wyandottes, W. and B. Leghorns, Jersey Cattle. 25 years' experience in mating and breeding. Valuable circular with prices, free. **F. M. BUSGER, De Kalb, Ill.**

INCUBATORS AND BROODERS.—Best in every respect. Lowest in price. Poultry, eggs, and poultry supplies. Send for catalogue No. 10. **PRERLESS INCUBATOR & BROODER CO., Quincy, Ill.** 3-f-om

THE IMPROVED VICTOR INCUBATOR
 Successfully Hatches Chickens by Steam.
 Absolutely Self-Regulating.
 The Simplest, Most Reliable and Cheapest First-Class HATCHER in the market.
 Circulars Free. Catalogue 4 cents.
GEO. ERTEL & CO., LONDON, ONT.



CRADLE CHURN.
 PAT. NOV. 28, 1892.
 It is a Labor Saver. Is always in order. The Easiest to clean. The Easiest to Operate. Allows a Free Circulation of Air while Churning.
 HOURS WITH HALF THE LABOR REQUIRED BY ANY REVOLVING CHURN
 TO BE HAD FROM ALL LEADING DEALERS. "Awarded first prize at Toronto Industrial Fair over all competitors."
 Address: **C. BOECKH & SONS, Toronto.**



HIGH MIXED ENSILAGE CORN
 One of the best at Model Farm in 1894. Price, \$1.00 per bushel.
W. G. BALDWIN, 8-c-0 Colchester.

FRUIT AND ORNAMENTAL TREES
 Shrubs, Roses, Grape Vines, Small Fruits, etc. First-class stock. Leading Varieties; true to name. Also 100 bushels Joannette Seed Oats.
 1-y-om **CROW & PAGE, Ridgeway, Ont.**

William Ewing & Co. SEED MERCHANTS.
 142 McGill Street, MONTREAL.
SELECT SEEDS
 and everything for Garden or Farm. Novelties in Garden and Flower Seeds, Timothy Seed—Our Special Re-cleaned Lower Canada Brand. Clover Seed, Pasture Mixtures, Seed Grain, including a full assortment of all the NEWEST VARIETIES OF OATS and ENSILAGE CORN. HORSE BEANS and SUNFLOWER. FORAGE PLANTS. SPRAYING MACHINES AND ARSENITES.
EWING'S CALF MEAL, the best substitute for milk.
 ILLUSTRATED CATALOGUE FREE ON APPLICATION.
 6-d-om

TREES AND BERRY PLANTS
 First class, choice varieties at prices that must sell them. Breeder of Pure Golden Wyandottes and White Leghorns
 Write for catalogue and price list
A. W. GRAHAM, ELGIN NURSERY, ST. THOMAS, ONT. 3-f-om

FOR FEAR OF GOPHER POISON, I will sell cheap the Imported Collie bitch "Aughton Lassie," also her three eight-month puppies; sire, Ormskirk Amazer. For price, pedigree, &c., apply **J. W. SCOTT, Yorkton P.O., Assa.**

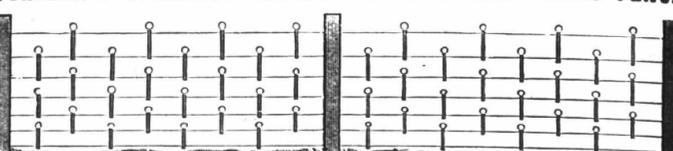
Bronze Turkeys Toms and Hens for sale, from 23-lb. hens and 40-lb. gobbler. A few good ones left. All Turkeys in March Exhibition that took prizes were from my stock.

Plymouth Rocks A few good Cockerels left from Hero Pen. I exhibited 5 Manitoba raised Cockerels scoring over 90 points. One of my Pullets took 2nd in a competition of over 30.

White Wyandottes—I swept the show.
Silver Laced Wyandottes—A grand Lot.
Imperial Pekin Ducks.
 Write for new Catalogue giving prices of eggs and description of Pens.

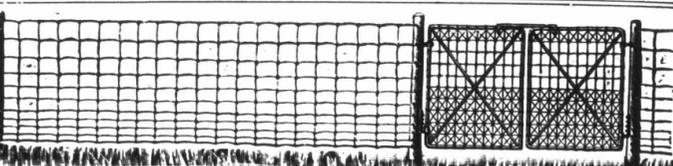
M. MAW, North Main St. Poultry Farm, Winnipeg.

BUCHANAN'S FLEXIBLE SPRING STEEL PICKET WIRE FENCE.



This Fence, as shown in above cut, is very handsome, strong and durable, should last a life-time and will turn any kind of stock. Is so constructed that it will remain tight and straight in all kinds of weather, a feature which no other maker has successfully accomplished. It is perfectly flexible and cannot be bent or kinked out of shape, and will stand more abuse or rough usage than any other fence in the market. It is our aim to place this fence on the market at a less price than any first-class fence has ever been sold at. Send for circulars, giving full description and prices to **M. T. BUCHANAN, Ingersoll, Ont.,** Manufacturer Wire Fence, Hay Carriers, Hay Forks, and a full line of Hay and Grain Unloading Tools.

AGENTS WANTED.



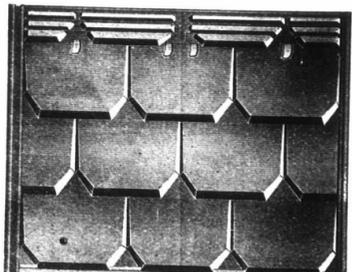
THE CHEAPEST AS WELL AS THE BEST.
 It is the aim of every farmer to put up the cheapest fence which he can depend upon as being stock proof.
 Unless his fence is stock proof he is better off with no fence at all.
 The Page Fence is generally recognized as the best and cheapest stock proof fence, BECAUSE
It needs less posts than any other fence.

Thirty-three feet apart is the accepted distance for posts for Page Fence. It may be stated as a rule that the Page requires half as many posts as do other good wire fences, and one quarter as many as a board fence. The coiled spring keeps the Page from sagging.
It can be put up more easily and quickly than any other.
 The Page is shipped from the factory ready woven, and can be rapidly stretched on the posts.
It contains the most wires and the strongest for the money.
 Our standard farm fence has eleven horizontal wires with cross-wires every foot. We use the best steel wire, which is twice as strong as ordinary wire of the same size.
YOU CAN PROVE IT WITHOUT EXPENSE.

We want every farmer to know that the Page is the best, and therefore will let any reliable farmer test the fence on his posts before paying for it. In most townships there is some farmer dealing in Page Fence who will be glad to do this, as well as to show fence already in use. Where there is no one selling Page we will ship a roll from the factory on receipt of good references.
 To any one asking we will send the last six numbers of our illustrated monthly paper, containing several fine pictures.
THE PAGE WIRE FENCE CO. OF ONTARIO (Ltd.), WALKERVILLE, ONT.

EASTLAKE STEEL SHINGLES

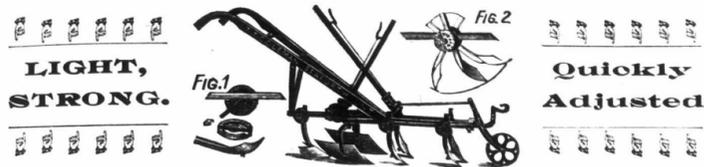
THE OLD RELIABLE EASTLAKE SHINGLE HAS MANY IMITATORS BUT NO EQUAL.



FIRE, LIGHTNING, WIND, AND WATER PROOF, DURABLE, ORNAMENTAL, AND CHEAP.
 Can be laid quicker than any other shingle. Never fails to give satisfaction. Suitable for all classes of buildings.
THE ONLY ORIGINAL SHINGLE WITH A CLEAT! OTHERS ARE IMITATIONS.
 Quality considered, this is the cheapest Shingle on the market. The finest catalogue ever issued will be sent upon request.
RELIABLE AGENTS WANTED.

METALLIC ROOFING COMPANY, LIMITED,
 84, 86, 88 and 90 YONGE ST., TORONTO.
 CUT OUT AND SEND US THIS ADVERTISEMENT FOR SPECIAL PRICE.
 10-y-0

The MODEL SCUFFLER!



LIGHT, STRONG. **Quickly Adjusted**

We aim to make an implement which will adjust itself to all the varying conditions of soil in the quickest possible manner, and with the least manipulation. We accomplish this by our new patented SHANK FASTENER OR CLAMP. The change is made by loosening one nut half a turn, by which operation the point can be shifted to any conceivable position. This Scuffler is, what many of our customers have already called it, "A WORLD BEATER." It is strong, durable, and of the best material and workmanship. If your local agent does not supply you, write direct to the estate of

T. T. GOLEMAN, Seaforth, Ont.

The March of Progress



THE LEADER TAKES ANOTHER STEP AHEAD FOR 1895.

THIS CUT SHOWS THE LATEST. FIRST IN CANADA TO MAKE LEVER EXTENSION CULTIVATORS.

We Want to Whisper in Your Ears THAT MANUFACTURERS OF OTHER CULTIVATORS MAY HAVE SOMETHING LIKE THE

IMPROVED LEADER OUT IN TIME FOR FALL FAIRS.

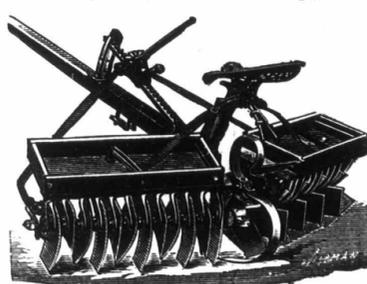
NOW LISTEN!! Farmers; and this is a pointer to Agents and Dealers: If the LEADER Corn and Root Cultivators are not for sale in your locality, write for prices and become the Leaders.

WANTED! Every one interested in Cultivators for 1895 to write us at once for prices. DELAYS ARE DANGEROUS. Also Manufacturers of DISC HARROWS, RIPPER FEED and ENSILAGE CUTTERS, TREAD POWERS, ETC.

THOM'S IMPLEMENT WORKS Established 1875. WATFORD, ONT. 8-b-o

THE WORTMAN & WARD MANUFACTURING CO.'S SPADE HARROW

The Best Pulverizer! The Best Cultivator! And The Best Harrow Ever Made.



It has no equal for pulverizing hard clay lumps. It is beyond question the best machine for making a seed bed on inverted sod. For preparing fall plowing for spring seeding, especially in heavy clay soil, where the land is baked or become hard and difficult to move. For cutting up and pulverizing any kind of stubble land, either for the purpose of starting good seeds or fitting for seeding. It is unquestionably far superior to anything in the market for cultivating any kind of land that is very difficult to subdue. Where every other tool has failed the Spade Harrow will be found to be just the machine needed. We also manufacture the "Daisy" Barrel Churn; Cistern, Well, Force, and Wind Mill Pumps, Horse Hay Forks, McKay's Pat. Combination Sling; also Scufflers, Feed Grinders, Root Pulpers, Pea Harvesters, Horse Tread Powers. Prices and terms given on application. Address,

THE WORTMAN & WARD MFG. CO., 8-d-om LONDON, ONTARIO.

This is it.

Cottolene is clean, delicate, wholesome, appetizing and economical. It is so good that it is taking the place of all other shortenings. Be sure and get the genuine. Sold in one, three and five pound tins with the trade mark—steer's head in cotton-plant wreath—on every package.

Made only by **THE N. K. FAIRBANK COMPANY,** Wellington and Ann Sts., MONTREAL.



ADVERTISE IN THE FARMER'S ADVOCATE.

AS IN YOUTH Ayer's Hair Vigor CORDIALLY INDORSED.



RESTORES Natural Growth OF THE HAIR —WHEN— ALL OTHER Dressings FAIL.

"I can cordially indorse Ayer's Hair Vigor, as one of the best preparations for the hair. When I began using Ayer's Hair Vigor, all the front part of my head—about half of it—was bald. The use of only two bottles restored a natural growth, which still continues as in my youth. I tried several other dressings, but they all failed. Ayer's Hair Vigor is the best."—Mrs. J. C. PREUSSER, Converse, Texas.

AYER'S HAIR VIGOR PREPARED BY Dr. J. C. AYER & CO., LOWELL, MASS.

To Smokers

To meet the wishes of their customers The Geo. E. Tuckett & Son Co., Ltd., Hamilton, Ont., have placed upon the market

A Combination Plug of

"T & B" SMOKING TOBACCO.

This supplies a long-felt want, giving the customer one 20-cent plug, or a 10 cent piece, or a 5-cent piece of the famous "T & B" brand of pure Virginia Tobacco. 5-y-om

The tin tag "T & B" is on every piece.

RUSSEL'S CORN CURE

A safe, sure and effectual remedy for the removal of all Corns and Warts. It removes those troublesome excrescences without pain or inconvenience, and without the use of the knife. There is no corn or wart that it will not cure, if the directions are strictly followed. Full directions around each bottle. PRICE, 25 CENTS, POST-PAID.

T. R. MORROW, Chemist & Druggist, 426 Cordova St., & Mt. Pleasant, VANCOUVER, B. C. 21-y-om

400—Helderleigh Fruit Farms Nurseries—400 (Four Hundred Acres in Extent.) Established 1882.

There is no place in Canada where the season is longer than here. Hence we get trees brought to the fullest maturity, capable of withstanding the severest cold. Having one hundred acres in fruit, from which cuttings, buds, scions, etc., are taken, I can safely guarantee the purity of my stock to be equal, if not superior, to any other nursery. The soil is specially adapted to produce vigorous, hardy trees, a grand lot of which are now growing and for sale. All the leading sorts of both old and new varieties deemed worthy of propagation. Catalogues free on application. Agents wanted in every township. 13-1f-om E. D. SMITH, Winona, Ontario.

SEED OATS

We have a quantity of the celebrated French Joannette Black Oats for sale. This variety has headed the list for four years at the Provincial and last year at the Dominion Experimental Farms; also for two years in tests made by the Experimental Union.

The BOW PARK CO. (Ltd.), BRANTFORD, 5-d-om ONTARIO.

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

Mr. J. C. Snell, Edmonton, Ontario, writes:—"Our sales of Berkshires during the last month have been very satisfactory, and include shipments to Maine, Kentucky, Michigan, Prince Edward Island, Quebec, Manitoba, and British Columbia, besides a large number in Ontario. We have yet a few really good young boars and sows of October and November litters, and our spring litters, the get of three first-class imp. boars, are very fine and promising. Berkshires are constantly making new friends and holding their old friends, while those who have faltered and gone after strange breeds are coming back again. They could not stay away."

SPRUCK GROVE STOCK FARM.

At Culloden, a few miles south of Ingersoll, is Spruce Grove Stock Farm, where Mr. Isaac Holland is engaged in the dairy business, and the breeding of Tamworth swine. He is using two choice Guernsey bulls on his dairy herd, Guernseys, which should make excellent dairy cows, as his dairy herd are all first-class milkers, and the Guernseys are noted for their good milking qualities, and being of very docile disposition, and fair sized, smooth cattle, they turn readily into beef whenever desired,—a very advantageous trait. Mr. Holland intends to enlarge his herd of pure-bred Guernseys, as his experience with them has been very satisfactory. The four-year-old bull, May's Roseberry (3423), is a fine model of the breed; he has done himself credit in the show rings, having won first as a calf in Toronto; second in '92, as a yearling; first in his class and sweepstakes for best bull any age in Toronto, in '94. His dam has a record of 224 lbs. in seven days. The half-sister of this bull, Liza C., and his sire have been famous winners in the leading show yards. Dandy of Oxford (3424), a two-year-old bred by J. A. James, Nilesstown, Ont., won in '94 second at Toronto and first at Ottawa. The neat sum of \$500 was refused for the dam of this bull, the object being to show her at the Columbian Exposition. As will be seen by Mr. Holland's advertisement in this issue, he will dispose of one of these bulls, as one will be all he will have use for this season. In looking over the Tamworths we noticed Dorridge Ruby 2nd, imported by Grant & Co., Ingersoll; a fine sow and an excellent breeder, her stock being very successful winners, capturing first, second, and third at the Provincial Fat Stock Show, Guelph, in '93; also first for best three pigs, offspring of one sow. This sow is bred to Rex (177), and will farrow in April; intending purchasers should keep this in view, as she always throws something extra good. Another good sow of Mr. Bell's (of Amber) breeding is due to farrow in May by Dandy of Oxford. Dandy of Oxford heads the herd, a 11-months-old boar, bred from Dorridge Ruby, a good lengthy hog. We also noticed a nice three month boar from the imp. sow Dorridge Ruby. Mr. Holland has a few young pigs from Tippto Sahib (59), (imp.), and his imp. sow, which he will dispose of. Particulars will be furnished on application.

SPRINGBROOK HERD OF YORKSHIRES AND BERKSHIRES.

After a drive of some three miles northward from Woodstock, we arrived at Springbrook Stock Farm, the property of Mr. Wm. Goodger & Son, where may be seen over one hundred head of Improved Large White Yorkshires. We found them in good thriving condition, of good quality, and excellent pedigree, the breeding sows being either imported, or the offspring of imported stock, the foundation stock being from such noted English breeders as Sanders Spencer, Walker Jones, and Geo. Chainock. At the head of this herd is the boar Morning Light—814—, by Dauphin 3rd (53), dam Jerry Lass 3rd (943)—a boar of good length, well fleshed back, thick loin, full flanks and hams, and a grand getter. The imp. sows, Holywell Lass and Fashion 2nd, of Mr. Spencer's and Geo. Chainock's breeding, are excellent representatives of the breed, and have proved themselves of much value to their owners as breeders. These sows are due to farrow in April, by Morning Light. Among the younger sows are many excellent individuals, which are bred direct from imported stock, and due to farrow in April and May. The Improved Large Yorkshire, without a doubt, answers the requirements of the pork packers in every respect, being light in the head, neck, and shoulders, with good heart girth, well-fleshed backs, thick loin, great length and heavy hams. They are, moreover, rapid growers and fatten readily. It is a well recognized fact that the cross of the Yorkshires on any of the shorter, thicker breeds, make a most profitable hog for the feeders' pens. In the towns and cities there is an increasing and persistent demand for lean ham and bacon, for which they are ready to pay a higher price. The following from one of the largest pork-packing establishments might be interesting:—"The number of Improved Large Yorkshire boars that have circulated through the country the last two years has very largely and favorably worked in the direction indicated, and among the hogs that we now take in at our packing-house are from one-third to one-half white, and without doubt are half-bred Yorkshires; and we can affirm that this cross has produced the best ideal of a bacon hog." Messrs. Goodger & Son are also breeding a good class of Berkshires. They are prepared to supply a first-class article, either in Berkshires or Yorkshires of any age, at very reasonable prices. We were informed that orders were always promptly attended to, and everything guaranteed to be as described.

NOTICES.

USED WITH GOOD SUCCESS. Westerlo, N. Y., June 27, 1894. The Lawrence-Williams Co., Cleveland, Ohio: I received your letter of the 19th. Enclosed please find draft for six bottles of Gombault's Cautic Balsam. I have used several bottles of Cautic Balsam with good success in every instance. Wm. BURCH.

HOW TO GET "SUNLIGHT" BOOKS. Send twelve "Sunlight" Soap wrappers to Lever Bros. Ltd., 43 Scott St., Toronto, who will send post paid a paper covered book, 160 pages. By leaving the ends of the parcel open, it will go for one cent postage. Remember "Sunlight" now sells at six cents per twin bar.

STOCK GOSSIP.

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

A RARE OPPORTUNITY.

The dispersion sale of Mr. D. D. Wilson's excellent Shorthorn herd, at Seaforth, as per advertisement in this issue, is fixed for Wednesday, May 15th. This sale has been looked forward to by many who want something extra fine in show and breeding stock.

THE CARGILL HERD OF SHORTHORNS.

Cargill is situated on the Wellington, Grey & Bruce branch of the G. T. R., in the County of H. Cargill & Son carry on their extensive breeding operations, and it was indeed a pleasure to be shown through the well-kept barns and stables. We found everything in first-class order, and the stock in fine condition.

Three miles west of Carleton Place is the celebrated stock farm of J. Yuill & Sons. In addition to the private butter dairy, stock breeding is carried on very extensively. It only requires a brief inspection to reveal the fact that a long line of selection and breeding has been carried on to bring the herd and flock to what they now are.

TREE SPRAYERS.

FOR the Spring of 1895 we are offering an Improved Fruit Tree Sprayer, for only \$1.60 each. Without any doubt this Improved Sprayer is as near perfection as Sprayers can attain.

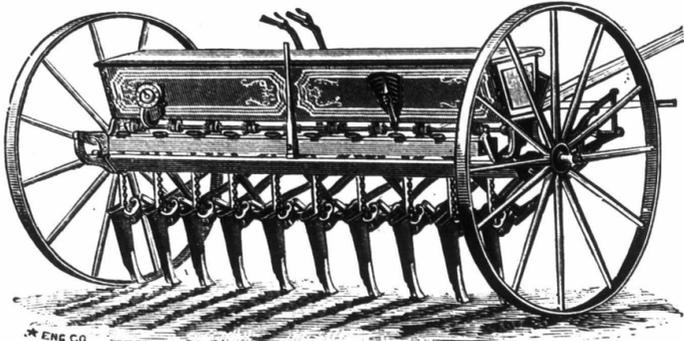
FACTORY CANS.

We carry a large stock of these Cans always on hand, and can ship promptly. Prices for the heaviest Steel Clad Improved Factory Cans as follows: 20 gallons, \$3.00 each; 25 gallons, \$3.50 each; 30 gallons, \$4.00 each.

STANLEY MILLS & CO., HAMILTON, ONT.

SMALL CLOTH-COVERED BOOK—Title, "How to tell the age of a Horse," with illustrations, only 30c., or 4 for \$1.00 (in stamps), post-paid.

Noxon Steel Hoosier Drill!



There are Drills and Drills! But there is only One Hoosier! All Others are Back Numbers!

The proof is, there are more Hoosier Drills in use in Canada to-day than all other Drills combined.

No Purchaser Dissatisfied Yet? Why should they be, when they have got THE BEST DRILL EVER MADE? WE GUARANTEE THIS.

NOXON BROS. MFG. CO. (Ltd.), INGERSOLL, ONT.

Salt! Salt!

FARMERS, by clubbing together, can get an assorted carload of Salt at the lowest prices. Patrons of Industry cannot touch us in prices from their Kincardine Works.

THE CANADA SALT ASSOCIATION, CLINTON, ONTARIO.

FERTILIZERS

THE NICHOLS CHEMICAL CO., CAPELTON, P.Q.

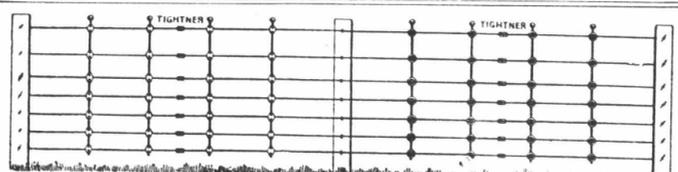
MANUFACTURERS OF SUPERPHOSPHATES CONTAINING A HIGH PER CENT. OF PHOSPHORIC ACID.

COMPLETE FERTILIZERS

Containing a high per cent. of Phosphoric Acid, Ammonia, and Potash.

FOR ALL SOILS — ALL CROPS.

THE NICHOLS CHEMICAL CO., Capelton, P.Q. Send for Circular and Prices.



No better wire fence built than the Casey Diamond Grip. Just the thing for farmers—neat, strong and durable. Will last a lifetime, barring accidents.

Wire Fence, which is claimed by some to be second to none, the lateral wire of which, as well as the upright stay, being crimped at joints.

CANADA FENCE COMPANY, Corners Bathurst and Clarence Sts., London, Ontario.

ADVERTISE IN THE FARMER'S ADVOCATE.

Sales were Never Better



GOOD STOCK and low prices will tell. Send to-day for our free Illustrated Price Catalogue—it is our AGENT.

Special offers by mail. Apple, Pear, Plum, Cherry, and Ornamental Trees, Roses, Grape Vines, Small Fruit Plants, etc.

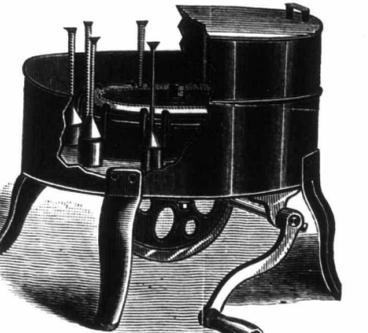
A. G. HULL & SON, 240 Central Nurseries, St. Catharines, Ont.

Empire State Potatoes.

This variety has headed about one hundred varieties in yield at O. A. C. Experimental Farm for four years, also all over Ontario last year in experimental union. Will sell a limited quantity at \$1.00 per bag, put on cars at Guelph. Bags free. Eating qualities excellent.

JAS. BOWMAN, 7-b-o West End, Guelph P. O.

50c. Bargains in Bulbs and Plants. The Maximum of Worth at Minimum of Cost. No. B-15 Gladiolus, finest assorted, for 50c. I-6 Dahlias, select show varieties " 50c. G-8 Montbretias, handsome " 50c. O-6 Roses, everbloom'g beauties " 50c. (Window Collection, 1 each, Fuchsia, Dbl. Fl. Musk, Ivy, and Sweet Sc'd Geranium, " 50c. F- Manetta Vine, Tropaeolum, Mex. Primrose & Heliotrope " 50c. E-8 Geraniums, finest assorted " 50c. R-13 Coleus, fine assorted colors " 50c. S-5 Iris, finest varieties " 50c. Any 5 collections for \$2.50; 3 for \$1.25; or 5 for \$2. By Mail, post-paid, our selection. A Snap! Catalogue Free. THE STEELE, BRIGGS, MARCON SEED CO. LTD. Toronto, Ont. 4-f-om



We have the best and simplest BABCOCK TESTER in use. Also dealers in Alpha De Laval Separators. We manufacture a complete line of Dairy Goods. Send for estimates of factory outfits.

5-d-o CREAMERY SUPPLY CO., Guelph.

DOWSWELL WASHERS.

Ask your hardware for the DOWSWELL WASHER Best Washing Machine in the Market.

10,000 IN USE. Or write to manufacturer for catalogue and prices. We also manufacture Churns, Wringers, Mangles and other household specialties, and want good agents in every county.

12-2-y-o DOWSWELL BROS., Hamilton, Ontario.

WOVEN WIRE FENCE. Why pay 60 to 80c. a rod for fence when you can make the best Woven Wire Fence on earth, horse high, well strong, pig and chicken tight, for \$13 to 20c. A ROD? A man and boy can make from 40 to 60 Rods a day. Over 50 different styles. Catalogue Free. Address, KITSSELMAN BROS., Ridgeville, Indiana. 8-b-om

DRS. ANDERSON & BATES, Surgeons of the Eye, Ear, Throat & Nose, 34 North James St., Hamilton, and 5 College St., Toronto. Sole agents for Prof. North's Earphone for the incurable deaf. A large assortment of artificial eyes on hand. 16-2-7

\$3 A DAY SURE. Send your address and we will show you how to make \$3 a day, absolutely sure, we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work, absolutely sure, don't fail to write today. IMPERIAL SILVERWARE CO., Box 4 Windsor, Ont. 21-L-om

METAL SPRAY PUMPS



Our Perfect Agitator, Strength and Durability, (Working Parts of Brass only) And Their Thorough Spraying Powers

BRANTFORD

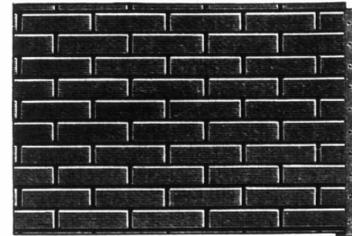


STEEL WIND-MILLS With Internal Gear.

STEEL TOWERS-IRON PUMPS-WATER-TANKS-PIPING, ETC.

The IDEAL JR. Sectional Power Mill is a Wonder. Send for circulars, and mention this paper.

Sheet Steel Brick Siding.



AS WARM AS A BRICK WALL. CHEAPER THAN WOOD. ENTIRELY WATER, WIND, STORM, FIRE AND LIGHTNING PROOF.

We manufacture any kind of desirable Sheet Steel Sidings, Sheet Steel Roofing, and Sheet Steel Ceilings.

Get our prices and New Catalogues. THE PEDLAR METAL ROOFING CO. Office and Works: OSHAWA, ONTARIO.



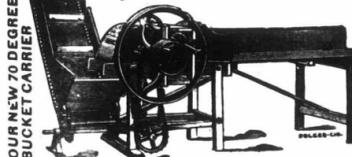
STEEL GANG CHEESE PRESS

All kinds of Cheese and Butter Factories furnished with the latest machinery.

THE "MONARCH" ENSILAGE CUTTER

(Carries any length, angle or direct.) Full line of Fodder Cutting Machinery, Horse Powers, Grinders, Root Pulpers and Agricultural Implements. Write for prices. Satisfaction guaranteed. Address,

RICHARDSON & WEBSTER, 10-2-y-o St. MARY'S, ONT



HOME COMFORT

ROLL OF HONOR.

THREE GOLD and ONE SILVER MEDAL THE WORLD'S INDUSTRIAL and COTTON CENTENNIAL EXPOSITION. NEW ORLEANS, 1884 and 1885.

HIGHEST AWARDS NEBRASKA STATE BOARD OF AGRICULTURE, 1887.

DIPLOMA ALABAMA STATE AGRICULTURAL SOCIETY, At Montgomery, 1888.

AWARD Chattahoochee Valley Exposition, Columbus, Ga., 1888.

HIGHEST AWARDS 25th ANNUAL F. ST. LOUIS AGRICULTURAL & MECHANICAL ASSOCIATION, 1889.

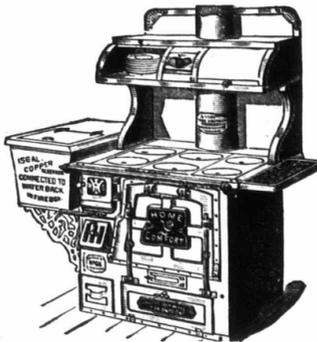
SIX HIGHEST AWARDS WORLD'S COLUMBIAN EXPOSITION CHICAGO, 1893.

HIGHEST AWARDS WESTERN FAIR ASSOCIATION, LONDON, CAN. 1893.

SIX GOLD MEDALS MIDWINTER FAIR, San Francisco, Cal., 1894.

ABOVE HONORS WERE

RECEIVED BY WROUGHT IRON RANGE CO., MANUFACTURERS OF Hotel Steel Ranges, Kitchen Outfittings and "Home Comfort" Hot-Air Steel Furnaces. OFFICES, SALESROOMS AND FACTORIES, 70 to 76 PEARL STREET, TORONTO, ONTARIO, and Washington Avenue, 19th to 20th Streets, ST. LOUIS MO., U.S.A. Founded 1864. Paid up Capital, \$1,000,000.



STEEL HOTEL AND FAMILY RANGES. CARVING AND STEAM TABLES, BROILERS, MALLEABLE WATERBACKS, ETC., ETC.

Above Style Family Range is sold only by our Travelling Salesmen from our own wagons at one uniform price throughout Canada and the United States.

Made of MALLEABLE IRON and WROUGHT STEEL and will LAST A LIFETIME if properly used.

SALES TO JANUARY 1st, 1895, 299,327.

OUR STOVES MUST BE GOOD



Or increasing sales for nearly fifty years could not have been accomplished.

We back up every statement we make with the goods themselves.

If your local dealer does not keep our stoves, write our nearest house.

"MODEL" FOR WOOD-2,000 SOLD ANNUALLY. THE McCLARY MFG. CO. 7-y-om LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER.

CENTRAL PRISON PURE MANILLA BINDER TWINE

QUIBELL'S SHEEP DIP (HIGHEST AWARD, WORLD'S FAIR, TRY IT.) Cash paid for Wool, Hides, Sheepskins, Calfskins, Deerskins, Horse Hides, Tallow, Horse Hair, Wool Bags and Burlaps supplied to Farmers and Ranchmen.

JOHN HALLAM, Toronto, PROPRIETOR. 7-h-om

Use:- Queenston:- Cement

FOR BUILDING CONCRETE OR OTHER WALLS, Cisterns, Stable Floors, Hog Troughs, &c.

Write for Prices and Particulars. When parties use our goods, when necessary we will send a skilled man, at our own cost, to give instructions how to build. FARMERS can thus build their walls and save half the cost.

ISAAC USHER & SONS, THOROLD, ONT. 13-y-om

STOCK GOSSIP.

BERKSHIRES AT ROSEDALE STOCK FARM. Some three miles out of Ingersoll, Messrs. H. Gregg & Sons have been quietly building up a very nice herd of Berkshires, the original stock being from the well known herds of Mr. Geo. Green, of Fairview, and J. G. Snell, of Edmonton. A few very good Chester Whites are also kept, the foundation stock having been purchased from N. H. Tillman, Ohio, and H. George & Sons, Crampton. Among the Berkshires we were shown some very good specimens intended to be fitted for the fairs of '95. Noticeable among the sows is Rosedale Queen, by Marcus (884), a boar of Mr. Snell's breeding, and from the sow Josephine (2989). Rosedale Queen is a well marked, squarely built, evenly fleshed sow, and a good breeder, judging from her offspring; it is the intention of her owners to fit this sow for show purposes. In the same pen were a couple of very nice, smooth young rows, about six months old, by Golden Prince, the present stock boar, their dam being Josephine (2989). Another very nice young sow is Queen of Salford (1050). We were shown two exceptionally fine young boars about six weeks old, from this sow and Golden Prince. Golden Prince (2329) was bred by Simmons & Quirrie, Ivan and Delaware, Ont., he was got by Garibaldi (1724), and from the sow Maid of Omen (2004), a very useful boar which heads the Rosedale herd. Black Jack, a six months boar, gives every promise of maturing a very useful animal, from Josephine, and by Golden Prince. Messrs. Gregg & Sons' advertisement will be seen in this issue offering young stock for sale.

MR. E. GEORGE'S CHESTER WHITES. Our next visit took us to the farm of Mr. E. George, Putnam, Ont., who has done a good business the last few years in Chester Whites. Stock from this herd have been sold to all parts of the Dominion, and from which many valuable herds have originated. For feeding purposes the Chesters are quick maturers, and feed off readily at six months, weighing two hundred pounds, thereby giving quick returns for the food consumed. In looking over Mr. George's stock, which comprise many good individuals, one of the best representatives of the breed we saw was the imported sow Ada (188), bred by Mr. Schellaberger, Enon, Ohio, which was suckling a fine litter of ten pigs at the time of our visit, by Stanton (imp.), bred by L. H. Martin, Alexander, Ohio. We also saw a number of nice young pigs about four months old, bred by Victor 305, of L. B. Silver's (Cleveland, Ohio) breeding. Now is the time to send in orders, either for spring pigs or young pigs ready for spring service before the boom comes on, which is sure to come sooner or later, owing to the shortage of hogs on the other side.

MR. WM. GRAINGER'S SHORTHORNS. We recently visited Hawthorn Farm, the property of Mr. Wm. Grainger & Son, situated two miles from Londesborough, County of Huron. These gentlemen, in establishing their herd of Shorthorns, had in view the building up of a herd of extra milking qualities; therefore in laying the foundation, excellent milkers were selected, and the herd has been improved year by year by the use of bulls of heavy milking strains, such as Prince of Strathallan, a Strathallan bull purchased from John Miller & Sons; Evergreen Prince, Britannia's Duke 10th, Waterloo Duke, Truce Reaver, and Golden Nugget - 1754 - the latter being the stock bull heading the herd at present; he was sired by General Booth - 6365 - and out of Rosebud 2nd - 4580 - . Among the cows of the herd our attention was drawn to Red Britannia 2nd, by a Bow Park bull, Waterloo Duke; Red Princess, Red Britannia, Britannia 1st, and Fair Maid of Hullet 2nd 9047, all heavy milkers, as we saw for ourselves. The last mentioned cow is by a Strathallan bull; she was shown at the World's Fair, where she made a record of over 2 1/2 lbs. in the butter test. We saw a very nice young heifer from Fair Maid of Hullet, calved at World's Fair, by Truce Reaver. Among the young bulls was Lord Bennington, eleven months old, by Prince George - 1471 - , a grandson of old Conqueror, and also a grandson of Fair Maid of Hullet. A number of young things from the above-mentioned cows, and by Golden Nugget, were seen. As heavy milking Shorthorns are now well to the fore, this should be a good herd to select from.

MESSRS. WHITESIDE BROS' CLYDESDALES, AYRSHIRES, AND SHROPSHIRE. A short walk from Innerkip Station, on C. P. R., brought the writer to the beautiful three-hundred-acre farm of Messrs. Whiteside Bros., situated about six miles east of Woodstock. The farm is especially adapted to dairying, as looking to the south from the buildings there lies a fine stretch of lowish grazing land, dotted here and there by groves of beautiful shade trees, and watered by a never-failing spring, while to the north of the buildings the land is more adapted to grain and fodder. The buildings are large and commodious, the barns being erected on stone basements with fine accommodation for their large and fine herd of Ayrshire cattle. A cream separator was in operation at the time of our visit, and there was a general appearance of order and thrift. The Ayrshires are an excellent lot, and of a splendid dairy type, many of them having exceptionally well defined milk veins, and all the requisite points of a good dairy cow. At the head of the herd is Braemar Lad (1162), by Campbell (357), and from Spotty of Rocton (42), a prize-winning cow at Toronto and other leading fairs. Braemar Lad is a model Ayrshire bull, and many choice young animals in the herd are of his production. We were shown some very fine young bulls about one year old and under very nicely marked and large for their age, some of them having every appearance of making good show animals. A number of very nice young heifers are also to be seen. This firm is still breeding Clydesdale horses, and some very good animals are to be seen in the stables. They own the Clydesdale stallion Self Esteem, whose get has been exceptionally successful as prize winners. The Shropshires number some seventy-five head of good quality, headed by a ram imported by R. Miller, Brougham. Messrs. Whiteside are also breeding some very choice Berkshires of Enterprise stock, one young boar by an Enterprise sire being an exceptionally handsome animal - very even, long bodied, thick-fleshed hams, and standing squarely on short, strong legs; he has every appearance of making a good stock animal.

BREEDERS' DIRECTORY.

Cards up to six line space inserted under this heading, one issue a month, \$3 per line per annum: every issue, \$5 per line. Payable in advance.

A. ELLIOT, Pond Mills, Ont.—Tamworth Pigs, Oxford Sheep, and sweepstake strain of Bronze Turkeys for sale. 20-2-y-om

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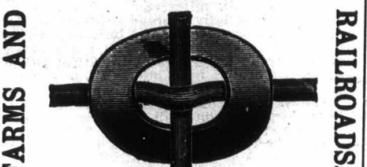
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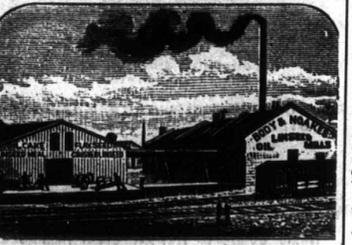
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